

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

MONTHLY
LABOR REVIEW

VOLUME VIII

NUMBER 4



APRIL, 1919

WASHINGTON
GOVERNMENT PRINTING OFFICE
1919



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CONTROL OF LABOR CONDITIONS BY INTERNATIONAL ACTION.

BY LEIFUR MAGNUSSON.

The Bureau of Labor Statistics has in preparation two bulletins on international labor legislation, one a historical account of the movement, a reproduction of all the treaties entered into, and an analysis of their terms;¹ the other a critical statement of existing labor standards in various countries, as well as international standards, and proposals for international labor standards to be adopted as a part of the future constitution of the proposed society of nations.² It seems opportune, therefore, to present a concise statement covering the present situation as respects the control of labor conditions by international action.³

International action affecting labor has taken shape in (1) international socialist organization; (2) formation of international trade-union bodies; (3) establishment of semipublic and private associations of students and workers interested in social and political reforms; (4) official conferences and treaties. While the principal purpose of this article is to outline briefly the history of the various diplomatic conferences which have drafted or adopted international labor laws, a word may be said as to the extent and nature of the other three forms of international labor organization. These nonofficial bodies form the background of the official phases of the movement, they develop the motives for the action taken, and have furnished the publicity which has spread the movement; they supply, that is, the political and economic sanction for the international labor movement.

BACKGROUND OF THE MOVEMENT.

International Socialist movement.—The Socialist Internationale is the present organized expression of the international socialist movement. It dates formally from 1864, when Karl Marx and a group of radicals organized the International Workingmen's Association in London. The association continued active for less than 10 years, but was revived in 1889. Its latest international congress before the

¹ Boutelle Ellsworth Low: History of International Labor Legislation. Bulletin of the U. S. Bureau of Labor Statistics. (In preparation.)

² Stephen Bauer: International Standardization of Labor Legislation. Bulletin 254, U. S. Bureau of Labor Statistics. (Translation of Arbeiterschutz und Völkergemeinschaft. Zürich. Art. Institut Orell Füssli, 1918, 157 pp.)

³ Other sources used in this summary are the publications of the International Association for Labor Legislation, published in English, French, and German, and reports of various international trade-union conferences; also L. S. Woolf: International Government. London. The Fabian Society, 1916, 259 pp.

war was held at Copenhagen in 1910, at which delegates from 33 nations were present. The earlier association held seven conferences; the revived organization has held 10 international congresses, including the recent one at Bern, not wholly representative.

The International Socialist Bureau, with headquarters at Brussels, was established in 1900, and is the permanent organization of the national delegates. The so-called international secretaries have met annually or more frequently since 1904. The executive committee is composed of Belgian socialists.

Both industrial and political reforms are on the program of the Internationale. The resolutions of the 1910 congress are typical of the demands of the international socialist movement. These are: (1) A maximum workday of 8 hours; (2) prohibition of employment of children under 14 years; (3) prohibition of night work except when necessary; (4) uninterrupted rest of 36 hours once a week as a minimum for all workers; (5) unrestricted right of free combination and association; (6) inspection of working conditions by authorized agencies upon which labor is represented. In the political field the congress demanded ultimate complete disarmament and the abolition of secret diplomacy.

International trade-unionism.—The international workingmen's movement has developed contemporaneously with the international socialist movement.

Two aspects of the international trade-union movement should be distinguished. There is first the international organization of separate crafts and the coming together of such organizations in an International Trades Secretariat; and second, there is the organization through an international body of the trade-union federations, made up of various trades or crafts of the various nations, whose central office is termed the International Secretariat.

Before the war 32 trades were organized internationally, the largest and most important being the metal workers and the miners, each of which had over a million members. In 1913 the international secretaries of these various international craft organizations met at Zurich for the first time. The respective trades or crafts, it should be observed, had hitherto been holding their independent conferences. This joint meeting of the secretaries, or secretariats as the offices are termed, was another move in the direction of greater unity in purpose and action of the trade-union movement. Principally, the conference hoped to bring about a closer association between the International Trades Secretariats and the International Secretariat which represented the various trades and federations.

Purely trade-union activities, as distinguished from political action, have taken up the attention of the international craft federa-

tions. All of them have favored the 8-hour day. The miners have advocated the nationalization of mines; transportation workers, dock laborers, and seamen advocate the nationalization of the railroads and the means of production.

The International Secretariat mentioned above is the central executive organ of the International Federation of Labor—being called prior to 1913 the International Federation of the National Trade Union Centers. It was organized permanently in 1902. Before the war 29 national trade-union federations were affiliated to the International Federation, together with 6 federations in the States of the Commonwealth of Australia—altogether 35 affiliated federations. In addition, the 32 craft federations already described have affiliated to it. It claimed before the war an affiliated membership of approximately 7,500,000.

Trade-union matters have been the principal concern of the Federation. Its main purpose has been to unify the labor movement. It has on the whole represented the more prudent and conservative elements of the movement. Political unity can not be said to characterize it, although most of the members in the European countries represent collectivist policies—that is, State capitalism or socialism.

International Association for Labor Legislation.—Besides the political and trade-union organizations built up internationally by the workman himself, individuals outside the labor movement have organized various international bodies which have concerned themselves in the cause of labor reform and regulation. These are bodies composed of economists and interested workers in the field of labor reform. In no instance are labor and capital represented as such. Among associations of this kind may be mentioned the International Federation for the Observance of Sunday, International Congress of Occupational Diseases, International Association on Unemployment, Permanent International Committee on Social Insurance, International Association for the Protection of Native Labor, and the International Association for Labor Legislation.

The mention of the names of these associations carries with it a sufficient statement of their objects. The most important is the International Association for Labor Legislation. This was formed in Paris in 1900 by a group of economists who met at the time of the Paris Exposition of that date. In 1901 a permanent International Labor Office was organized. The office has a semiofficial character; it is supported by contributions voted by some of the countries represented in the association, and delegates appointed by the various adhering countries attend its conferences. Twenty-five countries have established national branches of the International Association, and 19 appropriated public funds for its support in 1913. Seven

conferences have been held by the association, the latest at Zurich in 1912 in which 22 countries participated. Various delegates' meetings have been held between sessions of the more formal conferences.

The International Association for Labor Legislation has been closely and influentially associated with the drafting and preparation of the international labor conventions and treaties described below. It has, so to speak, prepared the soil and done much of the cultivation necessary before the gathering of the fruit of international labor legislation. It has prepared studies and outlined policies in such matters as the prohibition of night work of women and children; use of the dangerous white or yellow phosphorus in match manufacturing; administration of labor laws; protection of workmen from accident and disease; weekly rest day; and hours of labor in continuous industries.

The most recent action of the association was the submission in June, 1918, of a memorandum requesting the incorporation of a program of international labor legislation in the final peace treaty which will formally terminate the World War. The proposal is that the International Labor Office shall be made the official agency for the enforcement of the international labor standards which it is hoped will become a part of the future constitution of the proposed society of nations.¹ Among the standards urged for international acceptance are the following:

(1) Minimum age of employment to be 14 years, with right to advance it, as, for instance, in mines, to age 16.

(2) Ten-hour workday for women; a short Saturday; eight weeks' leave for women in time of confinement.

(3) Eight-hour shifts in mining and in establishments operating continuously.

(4) Provision of Sunday rest.

(5) Prohibition of use of poisonous substance where substitutes exist.

(6) Measures for safety of employees on railroads.

(7) Protection of seamen, on model of American Seamen's law.

(8) Protection for legal claims of workers under different social insurance laws.

(9) International regulation of the labor contract, to prevent disputes, involving (a) guaranty of recognition of right of free association and combination; (b) legal sanction to collective agreements; (c) minimum wage regulation.

(10) Protection of immigrant labor, and limitation upon duration of contract for colonial contract labor, i. e., six months for mining labor and three years for labor in agriculture and other industries.

(11) Uniform official reports concerning the enforcement of labor laws.

OFFICIAL INTERNATIONAL ACTION.

Official international action limiting the hours of labor was proposed by Robert Owen as early as 1818. In 1840 Le Grande, an Alsatian manufacturer, addressed memorials to the European Governments em-

¹ For the demands in detail and a critical analysis of their significance, see MONTHLY LABOR REVIEW of the Bureau of Labor Statistics, November, 1918, pp. 55-62.

bodying the idea of international cooperation for the control of industrial conditions. In 1871 an attempt was made by Germany and Austria to fix by agreements certain standards in labor legislation. In 1876 Switzerland suggested the aid of European diplomacy, but action in the matter by Switzerland was deferred until 1881. In that year the Swiss National Council adopted a resolution, previously considered in 1880, calling upon the Federal Council to take up the matter with certain foreign Governments. The subject was very considerably agitated in France, particularly during 1890. As a result of these sporadic efforts came the calling of the Berlin Conference of 1890. Switzerland had in 1889 planned to call the conference at Bern, but this action was suddenly anticipated by Berlin, the German Government having become greatly concerned over threatened labor disturbances, particularly the strike in the Ruhr district.

*Berlin Conference, March, 1890.*¹—The Berlin Conference summoned by the German Emperor to meet at Berlin March 15 to 29, 1890, was the first of four official conferences, the most recent of which was held in Bern in 1913. Fourteen countries were officially represented at the Berlin Conference, namely, Austria, Hungary, Belgium, France, Germany, Great Britain, Italy, Luxemburg, Netherlands, Portugal, Switzerland, and the three Scandinavian countries. The subjects for discussion embraced (1) the employment of women and children; (2) Sunday work; (3) mining; (4) methods of enforcing agreements. The conference was purely advisory, having authority merely to recommend terms for adoption by treaties.

No practical results flowed from it. The spirit of international cooperation held out as possible was, however, an earnest of the future. Indirectly it resulted in the formation in 1900 of the International Association for Labor Legislation, and was the forerunner of various unofficial labor congresses and conferences which intervened between that date and the holding of the next strictly official gathering.

Bern Conference of May, 1905.—Fifteen nations sent official representatives to this conference. They gathered as the result of a request from the International Association for Labor Legislation to the Swiss Federal Council to consider two resolutions prepared by the International Association. Like the earlier Berlin Conference of 1890, this, too, was a purely advisory or technical conference. Three methods of procedure were open to the gathering: (1) To conclude definite treaties or conventions to be later ratified by the respective

¹ France. Ministère des Affaires Étrangères Conference Internationale de Berlin, 15-29 March, 1890. Paris. Impr. Nationale, 1890, 128 pp.

Great Britain. Foreign Office. Correspondence respecting the proposed labor conference at Berlin, London, 1890, 5 pp. (Com. No. 8, 1890). Further correspondence respecting the International Labor Conference at Berlin. London, 1890, 194 pp. (Com. No. 16, 1890).

Governments; (2) to draft tentative agreements, reserving it to the Governments to transform these into conventions; or (3) to pass resolutions embodying suggestions for the terms of future agreements. The second course was pursued and agreements were drafted for the prohibition of the importation into the respective countries of white or yellow phosphorus for the manufacture of matches, and defining the limits of the night rest of women in industry.

It was now necessary to secure the ratification of these tentative agreements by the countries interested. The Swiss Federal Council, on June 26, 1905, proposed to the nations the calling of a conference to proceed with this necessary ratification. About a year later it was announced (June 14, 1906) by the Swiss Council that favorable replies had been received from Austria, Hungary, Belgium, Denmark, France, Germany, Italy, Luxemburg, the Netherlands, and Switzerland.

Bern Conference of September, 1906.—The Bern Conference of September, 1906, was a formal conference called for the purpose of agreeing to the final terms of the treaties tentatively drafted by the Bern Conference of the preceding year. Fourteen States were represented. Two conventions were signed, final ratification being reserved to the Governments interested. All of the 14 States represented signed the convention for the prohibition of night work by women. These States were Austria, Hungary, Belgium, Denmark, France, Great Britain, Germany, Italy, Luxemburg, the Netherlands, Portugal, Spain, Sweden, and Switzerland. It is noted that Norway is not included, although it signed the draft agreements at the conference a year earlier, while Great Britain and Sweden appear as signatories although not having agreed to the earlier draft conventions.

Only seven countries signed the agreement for the prohibition of the use of white or yellow phosphorus in the manufacture of matches. These were Denmark, France, Germany, Italy, Luxemburg, the Netherlands, and Switzerland. Five States which had signed the draft convention of 1905 did not sign this final agreement, namely, Austria, Hungary, Belgium, Portugal, and Spain. Denmark, a signer in 1906, had not signed the draft convention of 1905. Norway, Sweden, and Great Britain did not sign on either occasion. The United States has complied with the prohibition by passing the act of April 8, 1912, putting a prohibitive tax on the manufacture, sale, and removal of matches made from white phosphorus. This method was adopted because of the constitutional bar to legislation to destroy any industry.¹

Bern Conference, September, 1913.—Again in 1913 the Swiss Government took the initiative in urging international labor legislation

¹ For a discussion of the constitutionality of labor treaties see article by Thomas I. Parkinson, in *American Labor Legislation Review*, New York, March, 1919.

by approaching the Governments which had participated in the 1905 and 1906 conferences, submitting to these powers a program drafted by the International Association for Labor Legislation proposing the adoption of conventions prohibiting entirely night work by young persons and limiting to 10 hours a day the hours of work of women and young persons.¹ The delegates of Germany, Austria, Hungary, Belgium, Denmark, Spain, France, Great Britain, Italy, Norway, the Netherlands, Portugal, Russia, Sweden, and Switzerland assembled at Bern September 15, 1913. The same procedure was followed as at the Bern Conference of 1905, the delegates merely drawing up tentative agreements to be formulated into final treaty form at a later diplomatic conference similar to the one held at Bern in 1906, the treaties then to be ratified formally by the respective Governments. Such a diplomatic conference was called by the Swiss Government for September 3, 1914. The war intervening, it was not held, so that no formal treaties have resulted from the Bern Conference of 1913.

INTERNATIONAL LABOR LEGISLATION.

Various labor treaties have been entered into between different countries. Altogether there have been signed 30 bipartite agreements and two multipartite treaties, as noted above, signed as a result of the Bern Conference of 1906.

The treaties or agreements entered into by the various nations fall into three groups or classes: (1) Those affecting the movement of labor, i. e., emigration and immigration conventions; (2) those respecting equality or reciprocity of treatment of native and alien labor; and (3) those providing for uniform labor standards in the signatory countries. Naturally the treaties may again be classified according to the subject matter dealt with.

Movement of labor.—There are only a few treaties on this subject, as it is one usually reserved to national action, and not considered within the scope of international control. The following countries have agreements respecting the migration or recruitment of alien labor:

United Kingdom and France, October 20, 1906.

Transvaal and Portuguese Mozambique, April 1, 1909.

United States and Japan, April 5, 1911.

Equal treatment of alien and native workmen.—The treaties falling into that class of treaties which aim to accord to alien workmen the advantages of the labor legislation of the country to which they migrate are at present 27 in number, 4 being savings bank agreements, 4 social insurance conventions, and 19 covering accident

¹ Translations of the memoranda by the association on the subject appear in Bulletin 117 of the Bureau of Labor Statistics, "The prohibition of the night work of young persons," Washington, 1913, 74 pp.; and Bulletin 118 of the Bureau of Labor Statistics, "Ten-hour maximum working day for women and young persons," Washington, 1913, 71 pp.

insurance. Thus this group of treaties covers the larger part of all international agreements.

The savings bank agreements permit nationals of one country to transfer without charge deposits from the savings banks of the other country. Social and accident insurance treaties make applicable to resident alien workmen the terms of the laws of the country of their employment or grant to nonresident dependents of alien workmen the benefits of the law of the country of employment.

Social insurance agreements have been entered into between the following States:

- France and Italy, April 15, 1904.
- France and Italy, June 9, 1906.
- Germany and Italy, July 31, 1912.
- France and Switzerland, October 13, 1913.

Accident insurance agreements have been entered into as follows:

- Switzerland and Italy, July 31, 1904.
- Germany and Italy, December 3, 1904.
- Germany and Austria-Hungary, January 19, 1905.
- Luxemburg and Belgium, April 15, 1905.
- Germany and Luxemburg, September 2, 1905.
- France and Belgium, February 21, 1906.
- Luxemburg and Belgium, May 22, 1906.
- France and Italy, June 9, 1906.
- France and Luxemburg, June 27, 1906.
- Italy and France, June 30, 1907.
- Germany and the Netherlands, August 27, 1907.
- France and Great Britain, July 3, 1909. (Arrangement to supplement this, November, 1910.)
- Hungary and Italy, September 19, 1909.
- France and Belgium, March 12, 1910.
- Germany and Belgium, January 6, 1912.
- Germany and Spain, February 12, 1913.
- Italy and United States, February 25, 1913.
- Germany and the Netherlands, May 30, 1914.

Besides the savings banks and insurance conventions, and belonging in the class of treaties granting equality of treatment of native and alien workmen in various countries, are two special treaties, one entered into between France and Italy and one between France and Denmark. The former, ratified June 10, 1910, provides reciprocal protection of children under the labor and educational laws of the respective countries; the latter, ratified August 9, 1911, subjects to arbitration every issue raised between the countries concerning their respective labor laws. The commercial treaties of certain European countries also contain stipulations concerning reciprocity in the application of all labor laws to alien and native workmen alike.

Uniform labor standards.—Those treaties which affect labor standards in the adhering countries involve a higher degree of adjustment

between the nations concerned than those described above as in the nature of comity agreements and involving no changes in domestic standards in labor legislation. Treaties of the former class are also more difficult of adoption; in fact, only two such agreements are in force, namely, those relating to the prohibition of the night work of women and to the use of white or yellow phosphorus in matches. Both of these were signed at Bern, September 26, 1906.

The night-work agreement provided that night work in industrial employment should be prohibited for all women without distinction of age, with certain exceptions. Eleven hours shall constitute the necessary period of night rest, and within the 11 hours the period from 10 p. m. to 5 a. m. shall be included. The agreement applies only to establishments having 10 or more employees.

Complete suspension of the prohibition is allowed in the case of accidents beyond human control or providence and where loss of perishable raw materials is at stake. The rest period may be limited to 10 hours in seasonal industries and in those countries where by law no regulations exist at present as to night work by women; and in countries outside of Europe and in colonies and protectorates, when climatic conditions require it, the uninterrupted night rest may be shorter than the established minimum, but a compensatory rest during the day must be accorded.

The provisions of the treaty prohibiting the use of phosphorus in matches are simple: "The high contracting parties bind themselves to prohibit in their respective territories the manufacture, importation, and sale of matches which contain white (yellow) phosphorus." As the seven countries which signed the convention bound themselves not to import white phosphorus matches, the result has been that those countries which continued to manufacture them for export have been left practically without a market. This pressure consequently has brought other manufacturing countries to adhere to the convention, so that, outside of perhaps two countries, white phosphorus poisoning of workers is a thing of the past.

ENFORCEMENT OF LABOR TREATIES.

The enforcement of labor treaties is left to the authorities in the countries affected; consular officers very frequently serve as intermediaries. The French and Italian treaty of 1904 concerning savings banks provided for an exchange of annual reports on the enforcement of its terms. The Franco-Italian treaty of 1910 concerning reciprocity in the treatment of children in industry required that the two countries issue simultaneously their rules and regulations necessary for the enforcement of the treaties. The German-Netherlands treaty of 1907 prescribed details relating to the securing of depositions and summoning witnesses. The Franco-British treaty of 1909

and the supplementary arrangement of 1910 provide for the assistance of the British county court and the local French mayor in conjunction with the consuls of the respective countries in settling facts as to insurance claims in each country. Yearly reports of such judicial proceedings are to be exchanged.

Two treaties of 1912, those between Germany and Belgium and Germany and Italy, applied to the carrying out of the social insurance agreements, concerned the same rules and regulations that apply in civil and commercial matters. The latter treaty also defines in greater detail than hitherto the duties of consuls, as, for instance, requiring them to serve instruments upon their absent nationals.

Arbitration in the settlement of disputes arising in the enforcement of international labor treaties has been provided for in one treaty, that of 1909 between Hungary and Italy concerning accident insurance. The court of arbitration created by the treaty consists of five persons, two chosen from each State and one, to serve as president, from a third friendly State and chosen by the former four. The arbitrators can have the use of the judicial processes of either country to assist in elucidating all facts and matters in controversy.

The farthest that any official action has gone in arranging for the enforcement of labor treaties were the proposals by Switzerland and Great Britain. In 1906 Great Britain outlined plans for a permanent commission in connection with the application of the two polypartite treaties of Bern—those for the prohibition of night work by women, and of the use of white phosphorus in matches. The function of the commission was to make investigation as to the observance of the terms of the treaty in the signatory countries. The commission would then report its findings and recommendations to future conferences for consideration or even for arbitration. Switzerland favored the proposal. It was proposed as an alternative by France and Switzerland that the commission be only a consultative body and not advisory, but even this was objected to by some countries as an infringement upon their sovereignty.

Probably the chief obstacle to the securing of international agreements modifying industrial standards is the present basic conflict between employer and employee. Within each country the various economic groups are continually in conflict. The attempts to raise standards, shorten hours, and increase wages are considered by employers as attacks upon the interests of production, because such changes increase costs and thus limit business returns. While some countries, in spite of this ceaseless struggle of interests, have brought labor standards to a fairly high level, other countries "where labor is cheap, plentiful, and impotent" are still submitting to the 12-hour day and a régime of low wages. For the latter countries, it is obvious that any considerable upward movement of standards will mean a

relatively greater loss to their employers as a group, hence the opposition of employers to such proposed agreements. Although long periods of transition for adaptation to higher labor standards are allowed in existing agreements, the countries of low labor standards have almost invariably declined to participate in international labor conventions.

The agitation for the regulation of labor conditions began, as already observed, among closely contiguous European countries. The tendency is for labor to move to the countries of improved labor standards, while the knowledge among the workers of any country of the better treatment of labor in neighboring countries is provocative of unrest in the home country. Thus the threatened loss of labor and disaffection among the workers has brought home to employers the desirability of considering some united action on their part with the employers of other countries.

With increasing education of the workers and with gradually enlarging facilities of communication the more urgent will become the requirement to raise labor standards by international action. Enlightened manufacturers see in such raising of industrial standards no diminution in the long run in their ability to compete with those manufacturers who can avail themselves of cheap and helpless masses of workers; while the working man sees in international action a means of improving the conditions of life of those who constitute the great majority of the population.

INFLUENCE OF THE WAR ON ACCIDENT RATES IN MACHINE BUILDING.

BY LUCIAN W. CHANEY.

One of the most interesting questions at the present time concerning accident experience is in regard to the effect of the great intensification of industrial effort incident to the war. The review of this subject as to the iron and steel industry recently published in Bulletin 234 of the United States Bureau of Labor Statistics brings out many points of interest.

In order to compare the war conditions in the machine-building industry with those disclosed by Bulletin 216 for the year 1912 the 194 plants whose experience was utilized in the preparation of that report were requested to furnish similar information for 1917. Of the 194 plants which furnished the 1912 data 94 declined the preparation of the desired information on the ground of excessive pressure on their clerical forces. Fortunately the 100 who could furnish information were so distributed in the industry that all important branches were adequately represented.

The equivalent of 94,103 300-day workers were employed in the 100 establishments, or 81 per cent of the number included in the earlier collection of data. This gives a better idea of the relative importance of the second survey than would be obtained by a comparison of the number of plants. It was chiefly the larger plants that reported and these had in so many cases materially increased the number employed that some departments are represented by a greater volume of employment than was the case in the earlier report.

Table 1 presents in a form for ready comparison the figures for the two years 1912 and 1917, classified by products.

TABLE 1.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN 194 MACHINE-BUILDING PLANTS IN 1912 AND IN 100 PLANTS IN 1917, CLASSIFIED BY PRODUCTS.

Product and year.	300-day work-ers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (per 300-day worker).			
		Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.	Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.	Death.	Perma-nent disa-bility.	Tempo-rary disa-bility.	Total.
Electrical:													
1912.....	35,674	5	100	3,455	3,560	0.1	2.8	96.8	99.7	0.7	1.1	1.0	2.8
1917.....	29,695	4	40	989	1,033	.1	1.3	33.3	34.7	.8	.8	.6	2.2
Locomotives:													
1912.....	31,229	22	160	4,348	4,530	.7	5.1	139.2	145.0	4.2	2.9	1.4	8.5
1917.....	25,322	17	80	2,268	2,365	.8	3.2	89.6	93.6	4.3	3.5	1.4	9.2
Machine tools:													
1912.....	24,359	3	68	1,486	1,557	.1	2.8	61.0	63.9	.7	.8	.5	2.0
1917.....	20,185	7	63	2,495	2,565	.3	3.1	123.6	127.0	2.1	2.6	1.3	6.0
Ships:													
1912.....	6,615	3	15	1,422	1,440	.5	2.3	215.0	217.8	2.7	1.6	2.3	6.6
1917.....	5,932	7	10	361	378	1.2	1.7	60.9	63.8	7.1	2.3	1.4	10.8
Mining machinery:													
1912.....	3,994	.....	12	755	767	.....	3.0	189.0	192.0	.....	1.1	1.9	3.0
1917.....	4,227	.....	6	794	800	.....	1.4	171.3	172.7	.....	.9	2.1	3.0
Cranes, etc.:													
1912.....	4,362	1	15	813	829	.2	3.4	186.4	190.0	1.3	.5	1.6	3.4
1917.....	1,723	2	10	376	388	1.2	5.8	218.2	225.2	7.0	3.2	2.5	12.7
Transmission:													
1912.....	2,226	.....	9	186	195	.....	4.0	85.6	89.6	.....	2.1	1.1	3.2
1917.....	1,842	1	7	176	184	.5	3.8	96.5	100.8	3.3	3.3	1.2	7.8
Unclassified:													
1912.....	7,244	3	32	734	769	.4	4.4	101.3	106.1	2.5	2.0	1.0	5.5
1917.....	5,177	2	35	967	1,004	.4	5.7	186.1	192.2	2.3	3.8	2.0	8.1
Total:													
1912.....	115,703	37	411	13,199	13,647	.3	3.6	114.1	118.0	1.9	2.1	1.1	5.1
1917.....	94,103	40	251	8,426	8,717	.4	2.7	89.5	92.6	2.6	2.3	1.2	6.1

The products are arranged in the order of the volume of employment. A comparison of the totals brings out immediately a condition which prevails in several of the product groups. Accident frequency declines from 118 cases per 1,000 300-day workers to 92.6 cases. The severity rate on the contrary rises from 5.1 days to 6.1 days per 300-day worker, a 20 per cent increase. When the items are examined it becomes evident that this increase is due to a greater prevalence of fatality, and an increased seriousness of the permanent disabilities.

This decline in frequency with a rising severity is a very common phenomenon. It arises in part because of a measure of self-deception based on the use of frequency rates. A company which observes a marked decline in frequency is apt to have a feeling of complacency which may entirely obscure the fact that the serious element in the occurrences has so far increased as more than to wipe out the benefit of the lessened frequency.

In 1913 several concerns showed a definite lessening of severity, but it is evident that the stress of war activity not only overcame the advantage gained but pushed severity to a point as high or higher than that of 1912.

There are some exceptions to this general experience which deserve special mention. In the manufacture of electrical apparatus the frequency rate declined from 99.7 cases per 1,000 300-day workers to 34.7 cases, a 65 per cent decrease. The severity rate declined from 2.8 days per worker to 2.2 days, or 21 per cent. Here exclusive attention to the frequency showing might induce greater optimism than the facts really justify.

In the manufacture of machine tools both frequency and severity increased. Frequency rose from 63.9 cases to 127, an increase of 99 per cent, severity from 2 days to 6 days, an increase of 200 per cent.

The other products are not represented by a sufficient body of employment to justify placing emphasis on their showing although the rates may be accepted as sufficiently typical to give a fairly accurate idea of the trend during the highly active year of 1917.

Table 2 presents the same data classified by departments:

TABLE 2.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN 194 MACHINE-BUILDING PLANTS IN 1912 AND IN 100 PLANTS IN 1917, CLASSIFIED BY DEPARTMENTS.

Department and year.	300-day workers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (per 300-day worker).			
		Death.	Perma- nent dis- abil- ity.	Tempo- rary dis- abil- ity.	Total.	Death.	Perma- nent dis- abil- ity.	Tempo- rary dis- abil- ity.	Total.	Death.	Perma- nent dis- abil- ity.	Tempo- rary dis- abil- ity.	Total.
Machine shops:													
1912.....	37,595	7	132	3,923	4,062	0.2	3.5	104.4	108.1	1.1	1.4	0.9	3.4
1917.....	39,634	15	126	3,998	4,139	.4	3.2	100.9	104.5	2.3	2.4	1.1	5.8
Foundries:													
1912.....	12,307	4	49	1,670	1,723	.3	4.0	135.7	140.0	1.9	2.1	1.4	5.4
1917.....	7,245	4	17	1,211	1,232	.6	2.3	167.1	170.0	3.3	2.3	1.9	7.5
Erecting:													
1912.....	11,373	3	56	1,992	2,054	.5	4.9	175.2	180.6	3.1	2.8	1.9	7.8
1917.....	4,991	6	15	392	410	.6	3.0	78.5	82.1	3.6	4.1	1.0	8.7
Boiler shops:													
1912.....	2,994	6	29	636	671	2.0	9.7	212.4	224.1	12.0	6.3	2.4	20.7
1917.....	2,889	5	10	261	276	1.7	3.5	90.3	95.5	10.4	3.2	3.2	16.8
Forge shops:													
1912.....	2,776	3	13	439	455	1.1	4.7	158.1	163.9	6.4	2.8	1.7	10.9
1917.....	2,869	.....	16	350	396	.....	5.6	132.5	138.1	.....	5.9	2.1	8.0
Wood working:													
1912.....	3,571	1	27	264	292	.3	7.6	73.9	81.8	1.7	2.4	.9	5.0
1917.....	2,266	.....	13	190	203	.....	5.7	83.8	89.5	.....	3.4	1.5	4.9
Maintenance:													
1912.....	1,468	.....	1	137	138	.....	.7	93.3	94.0	.....	.8	1.1	1.9
1917.....	1,128	.....	1	107	108	.....	.9	94.9	95.8	.....	.5	1.3	1.8
Yards:													
1912.....	1,221	3	7	260	270	2.5	5.7	212.9	221.1	14.7	4.3	2.6	21.6
1917.....	1,048	1	2	108	111	1.0	1.9	103.1	106.0	5.7	2.3	1.6	9.6
Unclassified:													
1912.....	42,398	7	97	3,878	3,982	.2	2.3	91.5	94.0	1.0	.5	1.1	2.6
1917.....	32,033	12	51	1,779	1,842	.4	1.6	55.5	57.5	2.2	1.4	1.0	4.6

It is of interest to observe that the tendency to lowered frequency rates with increasing severity is found in three of the large departments, namely, machine shops, erecting, and the unclassified group. In foundries both frequency and severity increase. The smaller de-

partments show an encouraging situation in that with but two slight exceptions both frequency and severity decrease.

Machine shops show an increase in severity of from 3.4 days to 5.8 days per worker, or 71 per cent; foundries, from 5.4 days to 7.5 days, or 39 per cent; erecting shops, from 7.8 days to 8.7 days, or 11 per cent. The most favorable showing is made by yards, in which days lost per 300-day worker declined from 21.6 days to 9.6 days, or 56 per cent. Unfortunately the volume of employment is not in either year sufficient to warrant acceptance of these rates as necessarily typical but it may be concluded that the reduced rate represents a real improvement in the handling of the problems of internal transportation. It is still true that industrial establishments have not brought their equipment and their methods of operation in transportation up to the standards set for railroads under Federal supervision.

Boiler shops, which showed next to the highest severity rate in 1912, had the highest in 1917, but the rate declined from 20.7 days to 16.8 days, or 19 per cent.

RATES IN MUNITION PLANTS.

Much interest naturally exists regarding the conditions in the large munition works where the force has been assembled under great pressure and the work expedited by all known means. It has not been possible to bring together the data on a large scale but the facts are available for two large concerns and are given in Table 3.

TABLE 3.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN TWO MUNITION PLANTS AND IN LOCOMOTIVE BUILDING AND MACHINE SHOPS.

Item.	300-day workers.	Number of accidents.				Accident frequency rates (per 1000 300-day workers).				Accident severity rates (per 300-day worker).			
		Death.	Perma- nent dis- ability.	Tempo- rary dis- ability.	Total.	Death.	Perma- nent dis- ability.	Tempo- rary dis- ability.	Total.	Death.	Perma- nent dis- ability.	Tempo- rary dis- ability.	Total.
Munitions.....	4,000	2	12	804	818	0.5	3.0	201.0	204.5	3.0	3.9	2.3	9.2
Munitions.....	10,580	7	11	1,331	1,349	.7	1.0	125.8	127.5	4.0	2.8	3.0	9.8
Locomotives...	25,322	17	80	2,268	2,365	.8	3.2	89.6	93.6	4.3	3.5	1.4	9.2
Machine shops.	39,634	15	126	3,998	4,139	.4	3.2	100.9	104.5	2.3	2.4	1.1	5.8

What the prewar rates may have been in the munition plants there is no means of knowing. In fact there can scarcely be said to have been such rates, since the expansion and the change of work entirely transformed the plants. It is evident that the same influences which produced the increased rates in the building of locomotives and engines and in machine shops in general were operative in munitions works.

The severity rates of 9.8 and 9.2 days in the munition plants are markedly close to the 9.2 days of the locomotive builders. The lower rate (5.8 days) in machine shops corresponds to the lighter and less hazardous operations which form a large part of the work of machine shops in general.

GOVERNMENT PLANTS.

The United States arsenal and navy yards are essentially machine-building concerns. For purposes of comparison Table 4 is introduced:

TABLE 4.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN ARSENALS AND NAVY YARDS AND IN MACHINE AND SHIP BUILDING, 1912 TO 1914, AND 1917 AND 1918.

Item.	300-day workers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (per 300-day worker).		
		Death.	Perma- nent dis- ability.	Tempo- rary dis- ability.	Total.	Death.	Perma- nent dis- ability.	Tempo- rary dis- ability.	Total.	Death.	Non- fatal.	Total.
Arsenals: ¹												
1912 to 1914.....	12,554	5	37	2,338	2,380	0.4	2.9	186.2	189.5	2.4	3.6	6.0
Machine building:												
1912.....	115,703	37	411	13,199	13,647	.3	3.6	114.1	118.0	1.9	3.2	5.1
1917.....	94,103	40	251	8,426	8,717	.4	2.7	89.5	92.6	2.6	3.5	6.1
Navy yards: ¹												
1912 to 1914.....	45,928	45	89	12,704	12,838	1.0	1.9	276.6	279.5	5.9	4.2	10.1
1918.....	54,026	41	45	5,273	5,359	.8	.8	97.6	99.2	4.6	2.2	6.8
Shipbuilding:												
1912.....	6,615	3	15	1,422	1,440	.5	2.3	215.0	217.8	2.7	3.9	6.6
1917.....	5,932	7	10	361	378	1.2	1.7	60.9	63.8	7.1	3.7	10.8

¹ The reports from arsenals and navy yards in 1912 to 1914 were manifestly incomplete for disabilities under two weeks. For the sake of more satisfactory comparison, in this table, later information has been applied in estimating the number under two weeks, and this estimated number is included with the reported number in the temporary disabilities.

No dependable information is at hand regarding conditions in the arsenals later than the three-year period 1912 to 1914. The rise in severity rates which occurred in the machine-building concerns in 1917 brought them to the level of the arsenals in the three-year period.

It was not possible in the navy-yard data to separate with accuracy the losses of time due to permanent disability and temporary disability. The severity rates are accordingly combined to form a nonfatal severity rate. Navy yards, considered as a unit, made a marked improvement in both frequency and severity between the three-year period and 1918. The decline is 65 per cent in frequency and 33 per cent in severity. The private shipyards for which data were available declined in frequency but increased in severity. The number of 300-day workers covered is not, however, large enough to permit positive conclusions.

The general upward trend of severity rates in machine-building concerns during the war period, when compared with a declining

severity in the navy yards, is very significant. In both machine-building operations and naval construction and repair the period was one of intense activity. Relatively inexperienced men were constantly being employed and much overtime work was being done. Under these conditions machine building suffered a slight but definite increase in severity while the naval establishments made a very decided decrease. No explanation can be offered for this condition except the earnest effort of the officers in command, the hearty cooperation of the entire management, and the skill and energy of the safety engineers in direct charge.

On the organization of the United States Employees' Compensation Commission a complete survey of all Government establishments was undertaken, at the instance of Mr. Lew R. Palmer, then president of the National Safety Council. Under the direction of Mr. Arthur H. Young, director of the American Museum of Safety, 30 or 40 of the most experienced safety men in the country conducted this survey.

The suggestions developed by this survey were largely carried out immediately. With the cooperation of the Bureau of Standards and the Department of Labor a complete system of safety codes was evolved. All new construction was, as far as possible, subjected to critical review from the safety standpoint. The results of this effort are undoubtedly reflected in the improvement in rates noted. It should be stated that this improvement is contributed by nearly all the yards, and in a few cases which show a rising rate it is due to the kind of calamity against which all precautions are from time to time ineffective.

This statement should not close without special mention of the group of safety engineers who were drawn into this service and to whose unstinted efforts it is fair to attribute a considerable portion of credit for the really remarkable results secured. There has never been a time when it was more likely, and in a sense excusable, that accident rates should run riot. That they have not done so in any case so far covered by the bureau's studies, and that in notable instances, in the face of the difficulties, reductions have been possible, is a guaranty of the essential soundness of accident prevention effort.

Evidence is not wanting, in the material considered in this brief review, that some of the engineers who share in the credit for this excellent showing are still too much impressed by the human factor and attribute too much to so-called "carelessness."

Not until this idea is cast out of the mind of the men directly in charge will engineers get down to the real fundamentals of accident prevention, namely, (1) adequate "engineering revision" and (2) proper instruction of men in safe methods of doing work.

COMPARISONS WITH THE IRON AND STEEL INDUSTRY.

The foregoing statement of facts leads naturally to some comparisons with the iron and steel industry in which much more extensive studies have been made.

Table 5 presents the experience of a portion of the iron and steel industry in the period 1907 to 1917:

TABLE 5.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN A SECTION OF THE IRON AND STEEL INDUSTRY, 1907 TO 1917.

Year.	300-day workers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (per 300-day worker).			
		Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tempo- rary disa- bility.	Total.
1907.....	27,632	61	105	6,529	6,695	2.2	3.8	236.3	242.4	13.3	6.8	3.2	23.3
1910.....	79,486	95	413	14,124	14,632	1.2	5.2	177.7	184.1	7.3	4.7	2.2	14.2
1911.....	80,029	72	424	13,837	14,333	.9	5.3	167.6	173.8	5.2	4.6	1.9	11.7
1912.....	93,666	84	478	17,450	18,012	.9	5.1	186.3	192.3	5.4	4.3	2.2	11.9
1913.....	91,107	100	410	14,103	14,613	1.1	4.5	150.3	155.9	6.8	3.8	1.9	12.5
1914.....	77,474	62	263	8,406	8,731	.8	3.4	108.5	112.7	4.6	3.2	1.5	9.3
1915.....	79,065	55	332	8,420	8,807	.7	4.2	106.5	111.4	4.2	3.2	1.3	8.7
1916.....	108,994	76	534	10,365	10,975	.7	4.9	95.1	100.8	4.2	3.8	1.3	9.3
1917.....	86,847	69	278	6,687	7,034	.8	3.2	77.0	81.0	4.6	2.5	1.2	8.3

When the rates in the foregoing table are compared with those for machine building, it appears that in five of the years covered the frequency rates are higher than in either year shown for machine building. In three years the rate is lower than the 1912 rate for machine building but higher than the 1917 rate. In 1917 this section of the iron and steel industry had a lower frequency rate than the machine builders.

In all the years the iron and steel industry had a higher severity rate than machine building, but in 1917 the rate was below that of 1912, while in machine building it was materially higher.

Some of the industries, such as the construction of locomotives and ships and the manufacture of cranes, had higher severity rates in 1917 than the iron and steel plants. Employment in the construction of locomotives and engines is sufficient to make this showing significant. With the others, the figures must be considered with caution on account of the small exposure.

Only two departments of machine building can be compared to advantage with those of iron and steel. These are machine shops and the erecting department in the machine-building industry, which can be compared, respectively, with the mechanical department and fabricating shops in the iron and steel industry.

TABLE 6.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN MECHANICAL DEPARTMENTS OF THE IRON AND STEEL INDUSTRY, 1907 TO 1917.

Year.	300-day workers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers).				Accident severity rates (per 300-day worker).			
		Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.
1907....	2,542	2	4	635	641	0.8	1.6	249.7	252.1	4.8	1.7	3.5	10.0
1910....	7,871	7	32	1,148	1,187	.9	4.1	145.9	150.8	5.3	3.7	1.4	10.4
1911....	6,712	5	35	878	918	.7	5.2	130.8	136.8	4.5	4.2	1.5	10.2
1912....	7,122	5	38	1,023	1,066	.7	5.3	143.6	149.7	4.2	5.0	1.7	10.9
1913....	7,474	7	33	981	1,021	.9	4.4	131.3	136.6	5.6	4.7	1.7	12.0
1914....	5,125	3	19	510	532	.6	3.7	99.5	103.8	3.5	2.9	1.2	7.6
1915....	5,693	1	27	483	511	.2	4.7	84.8	89.8	1.1	3.1	1.1	5.3
1916....	9,185	9	50	693	752	1.0	5.4	75.5	81.9	5.9	5.2	1.0	12.1
1917....	8,892	1	37	515	553	.1	4.2	57.9	62.2	.7	2.8	.8	4.3

The average frequency rate shown by the mechanical departments in Table 6, from 1912 to 1917, is 102 cases per 1,000 300-day workers. This is somewhat below the rates in machine shops, which were 108.1 in 1912 and 104.5 in 1917. In severity, on the contrary, the average from 1912 to 1917 is 8.8 days for mechanical departments, compared with machine-shop rates of 3.4 days in 1912 and 5.8 days in 1917.

It will be noticed that for the year 1917 the severity rate in machine shops was 5.8 days, while in mechanical departments it was 4.3 days; also that mechanical departments made a notable reduction when 1917 is compared with 1912, while machine shops went decidedly in the other direction. On the whole it is evident that these mechanical departments have the higher normal hazard, but have managed their campaign of accident prevention with somewhat greater efficiency than have the machine shops of the machine-building concerns.

Table 7 shows the condition in fabricating shops over a period of years:

TABLE 7.—NUMBER OF ACCIDENTS, AND ACCIDENT FREQUENCY AND SEVERITY RATES IN FABRICATING SHOPS, 1907 TO 1917.

Year.	300-day workers.	Number of accidents.				Accident frequency rates (per 1,000 300-day workers)				Accident severity rates (per 300-day worker).			
		Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.	Death.	Perma- nent disa- bility.	Tem- po- rary disa- bility.	Total.
1907.....	2,081	6	12	571	589	2.9	5.8	274.4	283.1	17.1	8.8	2.5	28.4
1910.....	3,935	4	15	731	750	1.0	3.8	185.8	190.6	6.0	2.3	1.8	10.1
1911.....	4,007	1	28	660	689	.3	7.0	164.7	172.0	1.5	4.6	2.0	8.1
1912.....	5,023	5	32	956	993	1.0	6.4	190.3	197.7	6.0	4.4	2.6	13.0
1913.....	5,313	5	38	996	1,039	.9	6.6	187.5	195.0	5.9	6.9	2.3	15.1
1914.....	3,811	3	13	426	442	.8	3.4	111.8	116.0	4.7	2.8	1.5	9.0
1915.....	2,994	3	13	366	382	1.0	4.3	122.2	127.6	6.0	2.8	2.1	10.9
1916.....	4,465	7	24	625	656	1.6	5.4	140.0	146.9	9.4	2.2	2.6	14.2
1917.....	5,020	4	26	531	561	.8	5.2	105.7	111.7	4.8	3.5	1.6	9.9

Erecting departments show constantly a lower severity rate than fabrication shops. On consideration of the items, it appears that this is due to higher fatality with average greater severity in permanent injury in fabrication. When this is followed into the causes, it is found to be due to the hazard of moving heavy and awkward pieces, such as girders, with the crane.

In fabrication shops both frequency and severity rates declined from 1912 to 1917, while in erecting departments, though there was a decline in frequency rates, the severity rates increased from 7.8 days to 8.7 days.

CAUSE OF FLUCTUATION IN ACCIDENT RATES.

It is established by all the studies so far made that with every period of increasing industrial stress the accident rates tend to rise. If there is not some opposing influence, such as increased accident prevention effort, this increase may carry the rates above those of previous stress periods. This apparently happened quite generally in machine building in the war year 1917. Whether this could have been avoided by active opposing effort is of course a question which it is impossible to answer. A large section of the iron and steel industry did succeed in holding down its rates below the previous high point which occurred in 1913.

The general character of the movement in the iron and steel industry is compactly shown in Table 8, from Bulletin 234.

TABLE 8.—FREQUENCY RATES OF FATALITIES AND OF ALL ACCIDENTS IN A SECTION OF THE IRON AND STEEL INDUSTRY, 1913 TO 1917.

Year ending with—	Number of 300-day workers.	Fatalities per 1,000 300-day workers.	Total acci- dents per 1,000 300-day workers.
December, 1913.....	153,098	1.34	181.0
March, 1914.....	146,522	1.29	168.4
June, 1914.....	137,816	1.09	154.7
September, 1914.....	128,023	.81	138.9
December, 1914.....	117,214	.70	130.4
March, 1915.....	111,881	.63	118.0
June, 1915.....	111,794	.65	114.0
September, 1915.....	117,933	.85	118.6
December, 1915.....	133,627	.86	124.5
March, 1916.....	148,221	.96	131.8
June, 1916.....	160,819	1.09	134.1
September, 1916.....	168,790	1.02	135.5
December, 1916.....	175,013	1.11	133.2
March, 1917.....	178,937	1.15	128.5
June, 1917.....	182,587	1.08	121.6
September, 1917.....	185,445	1.11	110.9
December, 1917.....	186,357	.98	103.4

This table shows a decline in the rates from the year 1913 to the year ending with June, 1915. From that point, with the increasing industrial activity, the rates increase to about the year ending with September, 1916. This was the period in which all industry was adjusting itself to the tasks of war. As that adjustment was accom-

plished the rates began to decline and continued to do so until the end of 1917.

It is an interesting and important question, not yet solved, as to which factor is the most important in causing this fluctuation. If, as seems to be indicated by all available data, it is due more than anything else to the introduction into the working force of relatively inexperienced men it adds much emphasis to the idea that instability in industry is exceedingly costly. It is costly to train new men. If during their period of training they are extremely liable to be numbered among the casualties the cost is enhanced to a degree not yet fully determined.

Of various methods devised for testing the influence of the introduction of new men none exhibits the effect more directly than the chart on the next page.

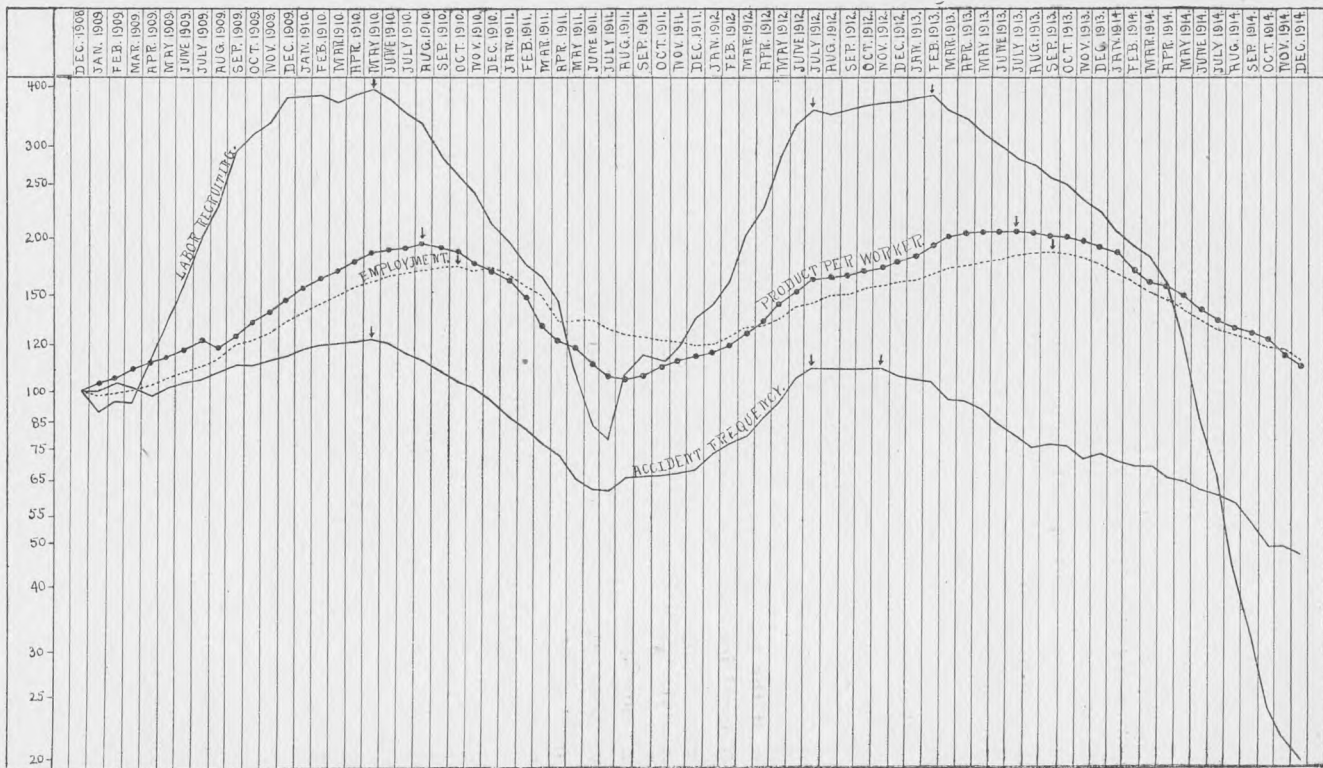
This chart is a "ratio" chart¹ and exhibits the rate of change in four related items—employment, product per worker, labor recruiting, and accident rates. The chart covers two periods of industrial stress, one culminating with the year ending in May, 1910, and the other with the year ending in February, 1913. It has not yet been possible to extend this study into the war period but it is the intention to do so as soon as possible.

It is evident on even casual inspection that the curve of accident frequency follows that of labor recruiting with surprising promptness. Whenever recruiting becomes active there is a strong tendency for the accident rate to increase. This is even more true of severe injury than of minor injury.

The chart shows further that increased activity of the individual, measured by increased product per worker, is a less controlling factor than recruiting, since product continues to increase in both periods after accident rates have begun to fall. Since this accords with other evidence regarding the influence of the inexperienced man it may be regarded as fairly established that this factor is of great if not of major importance.

¹ See article in MONTHLY LABOR REVIEW for March, 1919 (pp. 20-34).

COMPARISON OF THE TREND OF SEVERAL RELATED ITEMS BY REDUCTION TO INDEX NUMBERS, SMOOTHING THE CURVES AND PLOTTING ON A PERCENTAGE SCALE.



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LABOR TURNOVER.

LABOR POLICIES AND LABOR TURNOVER IN THE CALIFORNIA OIL-REFINING INDUSTRY.

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The general extent of the labor turnover and its distribution within the working force as a whole were reported for a group of California establishments in an article in the February number of the MONTHLY LABOR REVIEW.¹ That article covered the twelve-month period ending about June 1, 1918. It merely gave the relative volume of turnover in each establishment and, taking as a unit the aggregate labor force of the 12 establishments, analyzed its length-of-service records in such a way as to show what proportion of the turnover was to be definitely charged up to the floating, "10-day" job-holder and what proportion to employees with longer service records. No attempt was made to report the turnover within the working force except on the basis of the length of service of all employees, regardless of the nature of their work. As was to have been expected, the group of quitting employees with service records of less than one week was shown to have been responsible not only for an enormously high turnover in the jobs vacated by them, but as well for a quite disproportionate share of the whole turnover of the establishment.

An even more important problem is that of the relative responsibility for turnover of the different occupational groups in the working force. It goes without saying that common or unskilled labor is less stable than skilled labor. But just how much less stable it is we do not know. In the present article an attempt is made to answer this question. It describes in somewhat greater detail the turnover situation in the two oil refineries (establishments numbered 6 and 9) included in the report referred to on labor turnover in the San Francisco Bay region. These two establishments are designated in the present paper as refineries A and B, respectively.

The statistical material is analyzed primarily for the purpose of measuring the incidence of the labor turnover upon the different occupation groups. An effort is made not only to show how much more unstable is common labor than skilled labor, but to indicate

¹ Labor turnover in the San Francisco Bay region, MONTHLY LABOR REVIEW, U. S. Bureau of Labor Statistics, February, 1919, pp. 45-62.

what proportions of the quitters who had served one week or less, over one to two weeks, two weeks to one month, etc., were common laborers; what proportion refinery operatives, skilled mechanics, and so on. This analysis, in the light of the brief description given of employment machinery and labor policy, should give some indication of the effect of particular labor and employment policies upon labor stability in different occupations and in the labor force as a whole.

The present paper is fundamentally a case study. It essays to set forth the facts regarding labor turnover and job tenure at two particular establishments. The conditions described are local conditions. They are not reported as conditions necessarily typical of American industry in general or even as necessarily typical of the American oil-refining industry. Therefore it must be stated all the more emphatically that the conclusions drawn are by no means to be taken as necessarily valid for industry as a whole. No more is attempted here than to analyze local turnover conditions in the light of local labor and employment policies.

The two refineries are quite similarly situated in relation to the labor market, with perhaps some advantages of location to be conceded to refinery B. Both are within an hour by train from a large city. Refinery B is located on the outskirts of a small town and has the advantage of more adequate transportation facilities than refinery A. The latter plant is served by one main-line railroad while refinery B has both steam railway and interurban service. The adjacent town furnishes refinery B considerable but inadequate housing facilities. The other establishment is obliged to provide company houses for a large proportion of its employees.¹

SYSTEMS OF EMPLOYMENT.

There is an employment bureau in operation at refinery A. There is no bureau at refinery B, where the authority to hire and discharge is vested in the foremen and department heads. At refinery A the machinery of employment is very completely centralized, the authority to hire and discharge being vested in the manager of the employment bureau. Applicants for work present themselves at the employment office and are personally interviewed by the employment manager, locally designated as "employment supervisor." Unskilled laborers are put immediately to work without further interviewing. Candidates for work in any of the skilled occupations (and this includes all refinery operatives) are referred to the foreman under whom they would work and are further questioned by him concerning experience, qualifications for the

¹ Company activities in industrial housing are described on p. 26.

work, etc. Sometimes the employment supervisor accompanies the applicant and interviews him further in the presence of the foreman concerned. At other times he calls in the foreman for a conference with the applicant in the employment office. In this establishment the authority for hiring and discharging employees is much more centralized than in refinery B. It is the policy of the company operating refinery A to give the employment supervisor ample authority in all matters coming under his jurisdiction. That official is made directly responsible to the managing superintendent of the refinery.

At refinery B, as has been already remarked, there is no employment bureau. Job seekers at this plant apply for work at the gate where they are personally interviewed by an "employment agent." This agent has very little authority or responsibility and is in reality no more than a hiring clerk acting as the representative of the refinery superintendent. Foremen in the various departments send him requests for the men they require. These the employment agent selects from applicants at the gate and sends to the foreman interested, by whom they are interviewed and approved before being finally put to work. Here then it is the foreman or department head who is actually responsible for the hiring, despite the fact that very often unskilled laborers are automatically put on the job directly through the employment agent. It is only in this very limited sense that the employment agent hires. The responsibility for both hiring and discharge rests with the superintendent. The foremen have extensive but not always final authority in the matter of discharges. They are not permitted to take final action except in the most obvious cases. The superintendent investigates all cases where there may be any doubt as to the advisability of discharge before the discharge slip is made out. In other words discharge is partially but not entirely centered in the hands of the foremen. It is really a matter of joint responsibility between foreman and superintendent.

LABOR POLICIES—REFINERY A.

The plant is operated on the open-shop principle and the company enters into no wage scale or other agreements with employees. Company officials state that all applicants are considered entirely on their merits as workmen and without regard to affiliation with labor organizations. The company's attitude toward unions is certainly not actively hostile. It is perhaps better described as passive acquiescence. A branch of the Oil and Gas Workers' Union has recently been organized at the plant. This local claims a membership of about 340, or about 80 per cent of the working force. The refinery

superintendent, however, stated that he did not believe that more than 100 of the employees were members of the union. The efforts of the operating company seem to be directed toward the development of such favorable conditions of employment that the men will not care whether they belong to a union or not.

Company practice in regard to grievances of employees is very informal, complaints being merely referred to the plant superintendent for adjustment. The company now plans to systematize this matter and proposes to handle all grievances by appointing as "grievance men" two employees in each of the 11 operating divisions of the refinery.

The eight-hour day prevails, there being three eight-hour shifts a day on the stills and boilers and one shift in the rest of the plant. The policy is to put employees on a monthly salary basis as soon as possible after hiring. Prevailing daily wage rates for the more important occupations in both refineries are approximately as follows:

PREVAILING DAILY WAGE RATES FOR PRINCIPAL OCCUPATIONS IN THE TWO REFINERIES.

Occupation.	Rate in refinery—	
	"A."	"B."
Common labor	\$3.75	\$4.00
Refinery operatives	5.58	6.00
Skilled mechanics	¹ 5.85	² 6.10
Mechanics' helpers	3.75	4.62

¹ \$145 per month.

² \$156 per month.

Except for the rather feeble functioning of the traditional apprenticeship system there exists no system of shop training or instruction for either new or old employees.

As already stated this establishment has been compelled because of its location to go into company housing on a very considerable scale. It has recently built an unusually well-appointed dormitory accommodating 240 men and has formulated comprehensive plans for the erection of separate workmen's houses and for the gradual development of a systematic industrial housing program. The company's present housing facilities take care of about half of its employees. This means that a large proportion of the employees are still obliged to travel from 3 to 10 miles twice a day to get to their work and to do this under unusually inconvenient transportation conditions and on very awkward time schedules.

The usual provisions are made for the medical care of employees. No hospital fees are charged. The company operates by contract a hotel and boarding house immediately adjoining the refinery.

In March, 1918, the company inaugurated a bonus or so-called profit-sharing plan. The benefits paid employees under the plan are based primarily upon length of continuous service with the company, one of the objects of the plan being the stabilization of the labor force by the inducement to long and continuous service which is presumably involved. The terms of the "profit-sharing" plan provide for the payment of bonuses to all employees who have been in service at least one year proportioned both to the period of continuous service and to the amount of wages received (such proportions being scaled up or down according as the company's annual net profits rise or fall). As stated above, all employees are put on a monthly salary basis "as soon as possible." All such salaried employees are allowed 20 days of annual leave with pay.

LABOR POLICIES—REFINERY B.

This establishment is likewise managed on the open-shop principle, and there is no collective bargaining with employees. Although company officials at this refinery state that there is no prejudice or discrimination against union men, the general attitude of the management appears to be less favorable to them. Although job seekers may be asked no questions as to possible union affiliations, it seems evident that unionism among employees is discouraged. Certainly the attitude of the operating company on the unionization of employees is less frankly liberal than at refinery A. It is commonly reported in the community that the company immediately discharges any employee who is known to belong to a union. It is noticeable, moreover, that trade-union agitation is carried on much less openly here than it is at refinery A. The superintendent of refinery B, however, denied that the company was antagonistic to the unions and declared that a majority of the employees were union men.

Grievances are customarily referred for settlement to the refinery superintendent or to his assistant. There are no further provisions in regard to this and no definite machinery is provided for reference of complaints from employees to the management.

Here, as at refinery A, the eight-hour day prevails, and employees are put on a monthly salary basis "as soon as possible." It is apparent from the comparative scales of wages given on page 26 that the wages paid at this plant are somewhat higher than those paid at refinery A.

As at refinery A, the conventional system of apprenticeship is the only approach to shop training or instruction for employees. And

the apprenticeship system here, as elsewhere, appears to be in a state of decline, the number of apprentices employed at this refinery having declined from 51 to 24, or 53 per cent, during the year covered in this paper.

This company does nothing in regard to housing, of which the adjacent town furnishes a considerable but entirely inadequate supply. This inadequacy is less critical because there are very good transportation facilities.

This concern does a good deal more than refinery A in the way of provisions for the medical care of its employees. A company hospital has been recently completed and a resident physician is employed to attend cases of injury. An examining physician puts in about half time making physical examinations and a visiting nurse looks up all employees who are absent more than one day. No hospital fees are charged. Shop conditions generally are somewhat better here than at the other refinery.

The company has had in operation for some time systems of pension, life insurance, and sickness disability benefits, based primarily as at refinery A upon employees' period of continuous service. For those who have served one year or more the benefits are as follows: (1) For each year of service a pension allowance of 2 per cent of the average annual pay during the 10 years next preceding retirement, but not effective until employee has served at least 10 years with the company, and when he has served said minimum of 10 years no pension shall amount to less than \$300 nor more than 75 per cent of such average annual pay; (2) life insurance payments amounting to one month's salary for each year of continuous service, but not to exceed 12 months' salary; (3) sickness disability benefits—for employees whose terms of continuous service have been over one year but less than two years, full pay up to two weeks' sickness; for employees whose terms of continuous service have been two years but less than three years, full pay up to four weeks' sickness, and so on. The scale of sickness disability benefits runs on a similar basis for other service periods to a maximum of full pay up to 26 weeks' sickness, payable to all employees who have served continuously 10 years or over.

As already remarked, all employees are placed on the monthly salary roll "as soon as possible after hiring," and it is the company's policy to grant all such salaried employees "any reasonable amount" of time off with pay each year.

METHOD OF COMPUTING THE TURNOVER.

The volume of turnover is measured by comparing the normal number of full-time jobs (or, as designated in this article, the average number of full-time workers) with the total number of separations

during the period covered.¹ The percentage of turnover is simply the separation rate for 100 full-time workers employed. The average number of these full-time workers is obtained by dividing the total number of days (or hours) worked by all employees (in the establishment as a whole or in any particular group, as the case may be) during the year by the number of days (or hours) worked during the year by a (normally) full-time employee. It is obvious that what is involved in this method of determining a basic standard working force is simply a process of equating varying numbers of employees and odds and ends of service time to their equivalent in terms of the unit mentioned, the average number of full-time workers. Ten employees working six months are equivalent, then, to five full-time workers. Expressing it in terms of jobs, these 10 persons may be said to have occupied positions equivalent to five full-time jobs. In other words, the standard size of an establishment (which is used throughout this analysis as a turnover computation basis) may be expressed with reference to employees as "the equivalent number of full-time workers" and with reference to positions as "the equivalent number of full-time jobs." In the following discussion, therefore, either of the expressions "full-time jobs" and "full-time workers" is used as the context may require.

NATURE OF THE SEPARATIONS.

The causes of the turnover at the two establishments under examination can not be reported in any adequate way. Neither company had kept detailed records showing the reasons assigned by the employer for discharge or by the employee for quitting. There is nothing available except the not very enlightening "causes": Entry into military service, lay off (ostensibly) for lack of work, discharge for whatever cause, and desire to leave for whatever reason. These merely indicate the character of the separation and reveal little more than the general circumstances under which employees leave.

Statistical data on the nature of the separations were not available at refinery A. At the other plant it appears from the figures of Table 1 that of 2,855 separations 2,320, or 81 per cent, were voluntary, 396, or 14 per cent, due to entry into military service, 70, or 2 per cent, layoffs for lack of work, and 69, or 2 per cent, discharges.

¹ The method here used is that agreed upon by the National Conference of Employment Managers at Rochester, N. Y., in May, 1918. The conference promulgated a "standard definition" and method of computing the turnover, from which the following pertinent clauses are taken:

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

The complete report of the committee on the definition and computation of turnover was published in the MONTHLY REVIEW for June, 1918, pp. 172, 173.

The percentages showing the nature of the separations in the various occupations indicate that the proportions of discharge were about the same in all occupations. In the skilled mechanics' group 72 per cent of the separations were voluntary; this is the lowest proportion of voluntary separations shown for any group. The highest proportion is in common-labor group, 83 per cent of whose separations were voluntary. It may be noted in a general way that the predominant causes for voluntary separations, the type of separation which makes up the bulk of the turnover, are the unusual wage inducements offered during the war period in the shipyards on San Francisco Bay and at other points on the Pacific coast. Officials at both refineries state that a large part of the turnover is to be attributed to entry into military service, but the figures from refinery B hardly bear out that impression, indicating, as they do, that only 14 per cent of the separations were assignable to this cause.

EXTENT OF TURNOVER IN THE LABOR FORCE AS A WHOLE.

During the year ending June 1, 1918, the period covered in the following analysis, the labor force in both refineries was considerably enlarged, that of refinery A having increased 27 per cent and that of refinery B, 9 per cent. The size of the different occupation groups underwent the following changes during the year:

PER CENT OF INCREASE IN LABOR FORCE IN REFINERY A AND IN REFINERY B, BY OCCUPATION GROUPS.

Occupation group.	Per cent of increase in force.	
	Refinery A.	Refinery B.
Common laborers.....	16	11
Refinery operatives.....	22	2
Skilled mechanics.....	.....	26
Mechanics' helpers and apprentices.....	.....	3
Technical and clerical employees.....	97	.....

The extent of the turnover in the two refineries (including for refinery B the nature of the separations from the working force as a whole) and the length of service distribution of active and separated employees were indicated in the earlier article referred to above.¹ In this paper the same information is presented for various occupational subdivisions of the working force. In Table 1, which follows, the turnover and (for refinery B) the nature of the separations are shown classified according to these occupation groups.

¹ MONTHLY LABOR REVIEW, February, 1919, pp. 48, 52, 53.

TABLE 1.—LABOR TURNOVER AND NATURE OF SEPARATIONS DURING THE YEAR ENDING JUNE 1, 1918.

Occupation group.	Average number of full-time workers.	Em- ployees hired during the year.	Separations.					Per cent of turn- over for the year.
			Dis- charged.	Laid off.	En- tered mili- tary service.	Quit.	Total.	
Refinery A—Number.								
Common laborers ¹	199	753	.....	.....	.....	.....	659	331
Refinery operatives ²	171	294	.....	.....	.....	.....	258	151
Technical and clerical employees ³	50	94	.....	.....	.....	.....	63	126
Total.....	420	1,141	(⁴)	(⁴)	(⁴)	(⁴)	980	233
Refinery B—Number.								
Common laborers.....	113	2,363	48	46	225	1,547	1,867	1,652
Refinery operatives.....	240	435	11	2	79	425	517	215
Skilled mechanics.....	246	148	3	22	20	108	153	62
Mechanics' helpers and apprentices.....	366	130	7	.....	71	240	318	87
Total.....	965	3,076	69	70	396	2,320	2,855	296
Refinery B—Per cent distribution of separations.								
Common laborers.....	.....	.....	2	2	13	83	100	.....
Refinery operatives.....	.....	.....	3	.....	15	82	100	.....
Skilled mechanics.....	.....	.....	2	13	13	72	100	.....
Mechanics' helpers and apprentices.....	.....	.....	3	.....	22	75	100	.....
Total.....	.....	.....	2	2	14	81	100	.....
Refinery B—Rate per 1,000 full-time workers.								
Common laborers.....	20,912	425	407	2,000	13,690	16,552	.....	.....
Refinery operatives.....	1,813	46	8	329	1,771	2,154	.....	.....
Skilled mechanics.....	602	12	89	81	439	622	.....	.....
Mechanics' helpers and apprentices.....	355	19	.....	194	656	869	.....	.....
Total.....	3,188	72	73	410	2,404	2,959	.....	.....

¹ Including the following departments, as listed in company records: Yard traffic, general service, utilities, and construction.

² Including the following departments, as listed in company records: Refined and lubricating oil, asphalt, compounding, and package.

³ Including the following departments, as listed in company records: Test and control and clerical.

⁴ Nature of separations not reported.

It appears from these figures that the turnover for the year was 233 per cent in refinery A and 296 per cent in refinery B. Obviously, it was necessary at the former plant, in order to keep its 420 positions continuously filled, to hire 1,141 men, most of whom were needed to replace the 980 employees who were in one way or another separated from service during the year. At refinery A 3,076 men had to be hired to keep filled the 965 jobs in the plant and this primarily for the necessary replacement of the 2,855 men who left.¹

¹ As already noted, the net increase in force at refinery B was 9 per cent and at refinery A 27 per cent. Evidently, then, a considerably larger proportion of the latter's accessions were for the purpose of permanently increasing the force.

It is possible to show the accessions and separations from month to month only at refinery A. And even here figures were not available for exactly the same period that is primarily considered in this article. Table 2 gives for each occupation group the monthly hiring and separation figures for the eleven months ending with July, 1918, and shows as well the corresponding turnover percentages for each month in that period.

TABLE 2.—MONTHLY HIRING AND SEPARATION FIGURES FOR REFINERY A, SEPTEMBER, 1917 TO JULY, 1918, INCLUSIVE.

Month.	All employees.				Common laborers.			
	Hired.	Left.	Average number of full-time workers.	Per cent of turnover.	Hired.	Left.	Average number of full-time workers.	Per cent of turnover.
1917.								
September.....	90	69	307	22.5	59	52	142	36.6
October.....	117	74	322	23.0	74	49	139	35.3
November.....	90	94	272	34.6	58	70	102	68.6
December.....	93	79	351	22.5	52	42	148	28.4
1918.								
January.....	77	80	384	20.8	48	49	171	28.7
February.....	110	80	363	22.0	75	60	155	38.7
March.....	105	119	372	32.0	83	87	159	54.7
April.....	132	114	356	32.0	99	83	158	52.5
May.....	127	153	451	34.0	76	116	202	57.4
June.....	149	133	350	38.0	99	89	148	60.1
July.....	125	136	372	36.6	77	82	152	53.9
Total.....	1,215	1,131	355	28.9	800	779	152	46.8
Month.	Refinery operatives.				Technical and clerical employees.			
	Hired.	Left.	Average number of full-time workers.	Per cent of turnover.	Hired.	Left.	Average number of full-time workers.	Per cent of turnover.
1917.								
September.....	23	13	131	9.9	8	4	34	11.8
October.....	36	22	141	15.6	7	3	42	7.1
November.....	24	19	131	14.5	8	5	39	12.8
December.....	31	29	161	18.0	10	8	42	19.0
1918.								
January.....	24	25	164	15.2	5	6	49	12.2
February.....	29	16	160	10.0	6	4	48	8.3
March.....	19	28	161	17.4	3	4	52	7.7
April.....	16	21	150	14.0	17	10	48	20.8
May.....	38	30	183	16.4	13	7	66	10.6
June.....	46	41	149	26.6	4	3	53	5.7
July.....	41	46	169	27.2	7	8	51	15.7
Total.....	327	290	155	16.3	88	62	48	12.0

In Table 3 the turnover percentages are placed together on both a monthly and yearly basis, the yearly percentages being obtained simply by multiplying the monthly figures by 12. The monthly percentages were computed, of course, by dividing the number of separations which took place during the month by the average

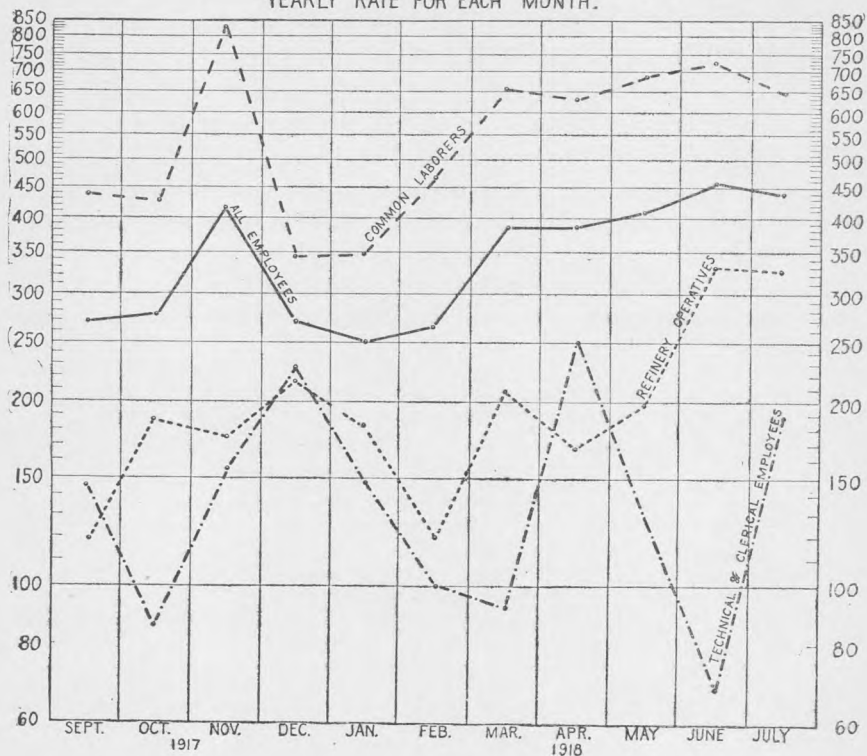
number of employees at work during the month. The month-to-month variations, the volume of turnover in the working force as a whole, and its relative extent in the three specified occupation groups are brought out graphically in the chart on page 34. It is quite clear from an examination of the chart that the turnover is heavier by a wide margin among common or unskilled laborers than it is among either refinery operatives or technical and clerical employees. It is evident as well that the excess of common labor turnover is so great as practically to determine the trend of turnover for the working force as a whole during the 11 months covered by the figures. It is apparent that refinery operatives are more unstable than technical and clerical employees, although the latter undergo wider variations in stability.

TABLE 3.—MONTHLY TREND OF THE LABOR TURNOVER IN EACH OCCUPATION GROUP AT REFINERY A, SEPTEMBER, 1917, TO JULY, 1918, INCLUSIVE.

Month.	Per cent of turnover.							
	Monthly basis.				Yearly basis. ¹			
	All employees.	Common laborers.	Refinery operatives.	Technical and clerical employees.	All employees.	Common laborers.	Refinery operatives.	Technical and clerical employees.
1917.								
September.....	22.5	36.6	9.9	11.8	270	439	119	142
October.....	23.0	35.3	15.6	7.1	276	424	187	85
November.....	34.6	68.6	14.5	12.8	415	823	174	154
December.....	22.5	28.4	18.0	19.0	270	341	216	228
1918.								
January.....	20.8	28.7	15.2	12.2	250	344	182	146
February.....	22.0	38.7	10.0	8.3	264	404	120	100
March.....	32.0	54.7	17.4	7.7	384	656	209	92
April.....	32.0	52.5	14.0	20.8	384	630	168	250
May.....	34.0	37.4	16.4	10.6	408	689	197	127
June.....	38.0	60.1	27.5	5.7	456	721	330	68
July.....	36.6	53.9	27.2	15.7	439	647	326	188
Average.....					318	513	187	129

¹ These figures are the basis of the chart on page 34.

PER CENT OF LABOR TURNOVER AT REFINERY "A" SEPTEMBER, 1917 TO JULY, 1918.
YEARLY RATE FOR EACH MONTH.



EXTENT OF TURNOVER IN DIFFERENT OCCUPATIONS.

When two refineries which provide 1,385 positions are deserted by 3,835 persons during the year, it is evident that on the average each position must have had 3 incumbents during the year. As a matter of fact, however, there may have been no changes whatever in a large proportion of the jobs. Some jobs, on the other hand, must have suffered weekly or fortnightly changes. The turnover, in other words, falls very unequally upon different sections of the working force. It is of primary importance to know what parts—especially what occupational parts—of the force are most unstable, that is to say, how the aggregate volume of turnover is distributed within the whole body of employees. The relative stability of labor

in different occupations is much more accurately indicated by length-of-service records of employees than it is by monthly or yearly employment figures. In Table 4 are shown for both refineries the number, percentage distribution, and rate per 1,000 full-time workers in each occupation group of active and separated employees who had served specified periods of time.

TABLE 4.—NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-TIME EM WHO HAD SERVED SPECI NUMBER.

Occupation group.	Average number of full-time workers.	Employees on pay roll at end of year (active employees) who had served continuously—										Total.
		One week or less.	Over 1 to 2 wks.	Over 2 weeks to 1 mo.	Over 1 to 3 mos.	Over 3 to 6 mos.	Over 6 mos. to 1 year.	Over 1 to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.	Over 5 years.	
Refinery A:												
Common laborers.....	199	13	9	17	39	6	27	21	9	13	18	172
Refinery operatives....	171	10	9	5	26	11	34	15	15	19	32	176
Technical and clerical employees.....	50	2	5	5	9	8	15	3	5	3	5	60
Total.....	420	25	23	27	74	25	76	39	29	35	55	408
Refinery B:												
Common laborers.....	113	40	39	63	208	77	274	275	86	71	143	1,276
Refinery operatives....	240	21	12	28	45	20	103	139	54	108	274	804
Skilled mechanics....	246	2	2	.....	21	14	36	55	25	29	127	311
Mechanics' helpers and apprentices....	366	4	2	4	27	19	100	116	23	31	83	409
Total.....	965	67	55	95	301	130	513	585	188	239	627	2,800

PER CENT DISTRIBUTION.

Refinery A:												
Common laborers.....	199	8	5	10	23	3	16	12	5	8	10	100
Refinery operatives....	171	6	5	3	15	6	19	9	9	11	18	100
Technical and clerical employees.....	50	3	8	8	15	13	25	5	8	5	8	100
Total.....	420	6	6	7	18	6	19	10	7	9	13	100
Refinery B:												
Common laborers.....	113	3	3	5	16	6	21	22	7	6	11	100
Refinery operatives....	240	3	1	3	6	2	14	17	7	13	34	100
Skilled mechanics....	246	1	1	.....	6	5	12	19	8	9	40	100
Mechanics' helpers and apprentices....	366	1	5	1	7	5	24	28	6	8	20	100
Total.....	965	2	2	3	11	5	18	21	7	9	22	100

RATE PER 1,000 FULL-TIME WORKERS.

Refinery A:												
Common laborers.....	199	65	45	85	196	30	136	106	45	65	90	864
Refinery operatives....	171	58	52	29	152	64	199	88	88	111	187	1,029
Technical and clerical employees.....	50	40	100	100	180	160	300	60	100	60	100	1,200
Total.....	420	60	55	64	176	60	181	93	69	83	131	972
Refinery B:												
Common laborers.....	113	354	345	558	1,841	681	2,425	2,434	761	628	1,265	11,292
Refinery operatives....	240	88	50	117	186	83	429	579	225	450	1,142	3,350
Skilled mechanics....	246	8	8	.....	85	57	146	224	102	118	516	1,264
Mechanics' helpers and apprentices....	366	11	5	11	54	51	273	317	63	85	227	1,117
Total.....	965	69	57	98	312	135	532	606	195	248	650	2,902

EMPLOYEES IN EACH OCCUPATION GROUP OF ACTIVE AND SEPARATED EMPLOYEES
 FIED PERIODS OF TIME.

NUMBER.

Separated employees who had served continuously—											Average number of full-time workers.
One week or less.	Over 1 to 2 weeks.	Over 2 weeks to 1 month.	Over 1 to 3 months.	Over 3 to 6 months.	Over 6 months to 1 year.	Over 1 to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.	Over 5 years.	Total.	
162	129	128	132	46	28	13	12	3	6	659	199
56	37	44	54	28	11	6	10	7	5	258	171
4	6	9	20	9	5	5	4	1	.....	63	50
222	172	181	206	83	44	24	26	11	11	980	420
426	175	213	438	291	170	69	34	12	39	1,867	113
135	40	60	65	71	38	30	20	15	43	517	240
20	12	10	12	27	23	12	1	6	30	153	246
48	29	30	67	54	26	32	19	5	8	318	366
629	256	313	582	443	257	143	74	38	120	2,855	965

PER CENT DISTRIBUTION.

25	20	19	20	7	4	2	2	1	1	100	199
22	14	17	21	11	4	2	4	3	2	100	171
6	10	14	32	14	8	8	6	2	.....	100	50
23	18	18	21	8	4	2	3	1	1	100	420
23	9	11	23	16	9	4	2	1	2	100	113
26	8	12	12	14	7	6	4	3	8	100	240
13	7	7	8	17	15	8	1	4	20	100	246
15	9	9	21	17	8	10	6	2	3	100	366
21	9	12	20	16	9	5	3	1	4	100	965

RATE PER 1,000 FULL-TIME WORKERS.

814	648	643	663	231	141	65	60	15	30	3,312	199
328	216	257	316	164	64	35	58	41	29	1,509	171
80	120	180	400	180	100	100	80	20	.....	1,260	50
529	410	431	490	198	105	57	62	26	26	2,334	420
3,770	1,549	1,885	3,876	2,575	1,504	611	301	106	345	16,522	113
563	167	250	271	296	158	125	83	63	179	2,154	240
81	49	41	49	110	94	49	4	24	122	622	246
131	79	82	183	148	71	87	52	14	22	869	366
652	265	324	603	459	266	148	77	39	124	2,957	965

The above table shows the number of employees on the pay roll at the end of the year ("active" employees) and the number who left during the year ("separated" employees) who had served one week or less, over one to two weeks, etc., for each occupation group. The table shows not only the length-of-service distribution of the 408 active and 980 separated employees of refinery A and the 2,800 active and 2,855 separated employees of refinery B, but also presents the same information on the basis of the rate per thousand full-time workers in each occupation group and in the whole working force.¹ In this table there is apparent a considerable range of variation both for active and separated employees between the different occupation groups. There is evident, however, a rough similarity of distribution between the two refineries, each of which shows a common difference in distribution between active and separated employees. An inspection of the rates per 1,000 shown in the table reveals at once a considerably higher range for common laborers than for any other occupation group, and it is noticeable that this disproportion is greater among active than among separated employees. It will be observed that in the shorter service groups much higher rates are shown for employees who were separated from service than for those who were in active service at the end of the year. This is particularly true of the common labor group. Also, it will be noted that the excess of the common labor separation rate over that of other groups is considerably greater in refinery B than it is in refinery A. After common labor the next highest separation rate in both plants is for refinery operatives.

The range of rates in the different service groups for those on the pay roll at the end of the year and the separation rates for those leaving is brought out more clearly in Table 5, which shows for both refineries the number, per cent distribution, and rate per 1,000 full-time workers of employees on the pay roll and separated during the year.

¹ The number of employees in service at the end of the year and the number leaving during the year in each given length-of-service group are presented in this article on the basis of rates per 1,000 full-time workers. These rates have been used in addition to percentage distribution figures because they make it possible to compare in a way impossible with percentage figures the size of any particular service group in different occupations. Moreover, the rate (whether separation rate or active service distribution rate) sets forth quite as clearly as does percentage distribution the diminution of numbers with increasing length of service.

TABLE 5.—NUMBER, PER CENT DISTRIBUTION, AND RATE PER 1,000 FULL-TIME WORKERS OF ACTIVE AND SEPARATED EMPLOYEES, CLASSIFIED ACCORDING TO LENGTH OF CONTINUOUS SERVICE.

Length-of-service group.	Number of employees who had served each specified period.		Per cent distribution.		Rate per 1,000 full-time workers. ¹	
	On pay roll at end of year (active).	Separated during the year.	On pay roll at end of year (active).	Separated during the year.	On pay roll at end of year (active).	Separated during the year.
	1	2	3	4	5	6
Refinery A:						
One week or less.....	25	222	6	23	60	529
Over 1 week to 2 weeks.....	23	172	6	18	55	410
Over 2 weeks to 1 month.....	27	181	7	18	64	431
Over 1 month to 3 months.....	74	206	18	21	176	490
Over 3 to 6 months.....	25	83	6	8	60	198
Over 6 months to 1 year.....	76	44	19	4	181	105
Over 1 year to 2 years.....	39	24	10	2	93	57
Over 2 to 3 years.....	29	26	7	3	69	62
Over 3 to 5 years.....	35	11	9	1	83	26
Over 5 years.....	55	11	13	1	131	26
Total.....	408	980	100	100	972	2,334
Refinery B:						
One week or less.....	67	629	2	21	69	652
Over 1 week to 2 weeks.....	55	256	2	9	57	265
Over 2 weeks to 1 month.....	95	313	3	12	98	324
Over 1 month to 3 months.....	301	582	11	20	312	603
Over 3 to 6 months.....	130	443	5	16	135	459
Over 6 months to 1 year.....	513	257	18	9	532	266
Over 1 year to 2 years.....	585	143	21	5	606	148
Over 2 to 3 years.....	188	74	7	3	195	77
Over 3 to 5 years.....	239	38	9	1	248	39
Over 5 years.....	627	120	22	4	650	124
Total.....	2,800	2,855	100	100	2,902	2,957

¹ Number of full-time workers: Refinery A, 420; refinery B, 965.

The figures in the first, third, and fifth columns of Table 5 show the length-of-service distribution of employees on the two pay rolls at the end of the year and may be assumed to indicate, with close approximation to the truth, the normal length-of-service distribution of the active working force throughout the 12-month period ending June 1, 1918. It is true that the length-of-service distribution of the active force might conceivably have been quite different if it had been tabulated as of another date. In the two plants under consideration, however, it is not believed that there would be any appreciable difference in this distribution at different times of the year, inasmuch as the seasonal element does not enter materially into the oil-refining industry.

The figures show very clearly the striking difference in length-of-service distribution between active and separated employees. It is quite evident from an inspection of either the rate or percentage columns that it is the short-time employee who contributes the overwhelmingly greater proportion of the turnover. For example, 529 per 1,000 leaving refinery A and 652 per 1,000 leaving refinery B

had served less than one week, whereas only 60 per 1,000 active employees in refinery A and 69 per 1,000 active employees in refinery B were found to be in this under-one-week group.

PROPORTION OF "STABLE" AND "UNSTABLE" EMPLOYEES IN DIFFERENT OCCUPATIONS.

It is apparent from the figures of Table 4 that in all occupations both active and separated groups contain rather large proportions of persons with under-one-year service records. As is to be expected this proportion of what may be termed "unstable" employees is a great deal higher among "separated" employees than among those found on the pay roll at any given time—the "active" employees. This difference between the active and separated groups is an important measure of the stability of the working force. If the proportion of under-one-year ("unstable") employees in any occupation or establishment is only slightly greater among separated than among active employees, it follows that the turnover in that occupation or establishment is relatively light. In Table 6 a comparison is made between the active and separated stable and unstable sections in each occupation group in each refinery.

TABLE 6.—NUMBER AND PER CENT OF ACTIVE AND SEPARATED EMPLOYEES WHO HAD SERVED ONE YEAR OR LESS AND MORE THAN ONE YEAR, RESPECTIVELY, BY OCCUPATION GROUPS.¹

Establishment and occupation group.	Average number of full-time workers.	Employees who had served one year or less and more than one year respectively.			
		On pay roll at end of year (active).		Separated during the year.	
		Stable.	Unstable.	Stable.	Unstable.
		Number.			
Refinery A:					
Common laborers.....	199	61	111	34	625
Refinery operatives.....	171	81	95	28	230
Technical and clerical employees.....	50	16	44	10	53
Total.....	420	158	250	72	908
Refinery B:					
Common laborers.....	113	575	701	154	1,713
Refinery operatives.....	240	575	229	108	409
Skilled mechanics.....	246	236	75	49	104
Mechanics' helpers and apprentices.....	366	253	156	64	254
Total.....	965	1,639	1,161	375	2,480
		Per cent distribution.			
Refinery A:					
Common laborers.....	199	35	65	5	95
Refinery operatives.....	171	46	54	11	89
Technical and clerical employees.....	50	27	73	16	84
Total.....	420	39	61	7	93
Refinery B:					
Common laborers.....	113	45	55	8	92
Refinery operatives.....	240	72	28	21	79
Skilled mechanics.....	246	76	24	32	68
Mechanics' helpers and apprentices.....	366	62	38	20	80
Total.....	965	59	41	13	87

¹ Employees who had served more than one year and one year or less are designated, respectively, "stable" and "unstable."

The figures given in Table 6 show that in both plants the unstable group makes up about 90 per cent of the separated employees, whereas it forms a much smaller proportion (in the two plants, 61 and 41 per cent, respectively) of the active working force. A similar examination of the occupational subdivisions forcibly demonstrates the relatively greater instability of common labor. The proportion of stable common laborers even among active employees is well under 50 per cent, but even that proportion is six or seven times their proportion among separated common laborers. Next to the common laborers in instability are the refinery operatives and mechanics' helpers and apprentices. The most stable groups are the skilled mechanics and technical and clerical employees.

AVERAGE WEEKLY SERVICE RATES.

It is a matter of course that as the period of service increases the number of employees who have served such period decreases—and decreases usually at a progressively increasing rate. This naturally holds true for both active and separating groups of employees. The length-of-service figures presented in the preceding pages do not reveal this tendency for the reason that the length of service records were not tabulated on a scale made up of equal intervals of time. In Table 5, for example, it appears that roughly the same number of separated employees had service records falling within a range of from one to seven days as had service records of from one to three months—in which group the range is about nine times as great. This statement of the situation is true, but misleading. The really significant difference is that between the number of quitters who had worked one week or less and the average weekly number of quitters into which the total number who had worked from one to three months is distributed. The comparison should be between weekly averages of active and separated employees in the different tenure groups. In other words, the important thing to know is not so much the number leaving who had one to three months' service records as the number of quitters assignable on the average to each of the nine weeks of the one to three months' period—what may for the sake of brevity be called the average weekly number leaving (or working on the active force) in each classified-service period.

This weekly average is made the basis of Table 7 which, with this important difference, covers the same ground as Table 4. It shows the average weekly number and rate per 1,000 full-time workers in each occupation group of active and separated employees who had served specified periods of time.¹ Here the declining

¹See footnote to Table 7.

scales of numbers indicate much more accurately than do the undivided figures the relative importance of long and short time employees as factors in the turnover situation. Relatively high average weekly separation rates, particularly in the shorter time periods, indicate relatively low stability—that is to say high turnover. Thus it is evident from the separation rates of Table 7 that common laborers are much less stable than the other groups of workers. Not only so, but their instability is much greater in refinery B than in refinery A. On the other hand it appears that the turnover of refinery operatives is slightly heavier in refinery A.

TABLE 7.—AVERAGE WEEKLY NUMBER AND RATE PER 1,000 FULL-TIME EMPLOYEES SERVED SPECIFIED

AVERAGE WEEKLY NUMBER.

Occupation group.	Average number of full-time workers.	Employees on pay roll at end of period (active employees) who had served continuously—								
		1 week or less.	Over 1 to 2 weeks.	Over 2 weeks to 1 month.	Over 1 to 3 months.	Over 3 to 6 months.	Over 6 months to 1 year.	Over 1 to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.
Refinery A:										
Common laborers.....	199	13.0	9.0	8.5	4.3	0.5	1.0	0.4	0.2	0.13
Refinery operatives.....	171	10.0	9.0	2.5	2.9	.9	1.3	.3	.3	.18
Technical and clerical..	50	2.0	5.0	2.5	1.0	.6	.6	.1	.1	.03
Total.....	420	25.0	23.0	13.5	8.2	1.9	2.9	.8	.6	.34
Refinery B:										
Common laborers.....	113	40.0	39.0	31.5	23.1	5.9	10.5	5.3	1.7	.68
Refinery operatives.....	240	21.0	12.0	14.0	5.0	1.5	4.0	2.7	1.0	1.04
Skilled mechanics.....	246	2.0	2.0	.....	2.3	1.1	1.4	1.1	.5	.28
Mechanics' helpers and apprentices.....	366	4.0	2.0	2.0	3.0	1.5	3.8	2.2	.4	.30
Total.....	965	67.0	55.0	47.5	33.4	10.0	19.7	11.3	3.6	2.30

AVERAGE WEEKLY RATE PER 1,000.

Refinery A:										
Common laborers.....	199	65.3	45.2	42.7	21.6	2.3	5.2	2.0	1.0	0.65
Refinery operatives.....	171	58.5	52.6	14.6	17.0	5.0	7.6	1.7	1.7	1.10
Technical and clerical..	50	40.0	100.0	50.0	20.0	12.4	11.6	1.2	2.0	.60
Total.....	420	59.5	54.8	32.1	19.5	4.5	6.9	1.8	1.4	.81
Refinery B:										
Common laborers.....	113	354.8	345.1	278.8	204.4	52.2	92.9	46.9	15.0	6.02
Refinery operatives.....	240	87.5	50.0	58.3	20.9	6.3	16.9	11.3	4.2	4.30
Skilled mechanics.....	246	8.1	8.1	.....	9.3	4.3	5.7	4.5	2.0	1.10
Mechanics' helpers and apprentices.....	366	10.9	5.5	5.5	8.2	4.1	10.4	6.0	1.2	.80
Total.....	965	69.4	57.0	49.2	34.6	10.4	20.4	11.7	3.7	2.40

IN EACH OCCUPATION GROUP OF ACTIVE AND SEPARATED EMPLOYEES WHO HAD PERIODS OF TIME.¹

AVERAGE WEEKLY NUMBER.

Separated employees who had served continuously—									
1 week or less.	Over 1 to 2 weeks.	Over 2 weeks to 1 month.	Over 1 to 3 months.	Over 3 to 6 months.	Over 6 months to 1 year.	Over 1 year to 2 years.	Over 2 to 3 years.	Over 3 to 5 years.	Average number of full-time workers.
162.0	129.0	64.0	14.7	3.5	1.1	0.25	0.23	0.03	199
56.0	37.0	22.0	6.0	2.2	.4	.12	.19	.07	171
4.0	6.0	4.5	2.2	.7	.2	.10	.08	.01	50
222.0	172.0	90.5	22.9	6.4	2.8	.46	.50	.11	420
426.0	175.0	106.5	48.7	22.4	6.5	1.30	.65	.12	113
135.0	40.0	30.0	7.2	5.5	1.5	.58	.39	.14	240
20.0	12.0	5.0	1.3	2.1	.9	.23	.02	.06	246
48.0	29.0	15.0	7.4	4.2	1.0	.62	.37	.05	366
629.0	256.0	156.5	64.7	34.1	9.9	2.80	1.42	.37	965

AVERAGE WEEKLY RATE PER 1,000.

814.1	648.2	321.6	73.9	17.6	5.5	1.26	1.16	0.16	199
327.5	216.4	128.7	35.1	12.9	2.5	.70	1.10	.41	171
80.0	120.0	90.0	44.0	13.8	3.8	2.00	1.60	.20	50
528.6	409.5	215.5	54.5	15.2	6.7	1.10	1.19	.26	420
3,769.9	1,548.7	942.5	431.0	198.3	57.5	11.50	5.80	1.10	113
562.5	166.7	125.0	30.0	22.9	6.3	2.40	1.60	.58	240
81.3	48.8	20.0	5.3	8.5	3.6	.93	.08	.24	246
131.0	79.2	41.0	20.2	11.5	2.7	1.70	1.00	.14	366
651.8	265.3	162.2	67.0	35.3	10.3	2.90	1.50	.38	965

¹ The average weekly numbers are obtained by dividing the whole numbers in each group (as shown in Table 4) by the approximate number of weeks in the respective groups as follows:

1 week or less.....	1 week.	Over 6 months to 1 year.....	26 weeks.
Over 1 to 2 weeks.....	1 week.	Over 1 to 2 years.....	52 weeks.
Over 2 weeks to 1 month.....	2 weeks.	Over 2 to 3 years.....	52 weeks.
Over 1 to 3 months.....	9 weeks.	Over 3 to 5 years.....	104 weeks.
Over 3 to 6 months.....	12 weeks.		

The difference between the original length of service figures of Table 4 and those on the equated weekly basis of Table 7 is brought out in Table 8, which follows:

TABLE 8.—TOTAL NUMBER AND AVERAGE WEEKLY NUMBER AND RATE PER 1,000 FULL-TIME WORKERS OF ACTIVE AND SEPARATED EMPLOYEES IN EACH LENGTH OF SERVICE GROUP.

Length-of-service group.	Approximate number of weeks in period.	Total number of employees who had served continuously each classified period.		Employees assignable, on the average, to each weekly service subdivision.			
		Active.	Separated.	Number.		Rate per 1,000 full-time workers.	
				Active.	Separated.	Active.	Separated.
1	2	3	4	5	6	7	
Refinery A:							
One week or less.....	1	25	222	25.0	222.0	59.5	528.6
Over 1 week to 2 weeks.....	1	23	172	23.0	172.0	54.8	409.5
Over 2 weeks to 1 month.....	2	27	181	13.5	90.5	32.1	215.5
Over 1 month to 3 months.....	9	74	205	8.2	22.9	19.5	54.5
Over 3 to 6 months.....	13	25	83	1.9	6.4	4.5	15.2
Over 6 months to 1 year.....	26	76	44	2.9	2.8	6.9	6.7
Over 1 year to 2 years.....	52	39	24	.8	.5	1.8	1.1
Over 2 to 3 years.....	52	29	26	.6	.5	1.4	1.2
Over 3 to 5 years.....	104	35	11	.3	.1	.8	.3
Over 5 years.....		55	11				
Total.....		408	980				
Refinery B:							
One week or less.....	1	67	629	67.0	629.0	69.4	651.3
Over 1 week to 2 weeks.....	1	55	259	55.0	259.0	57.0	265.3
Over 2 weeks to 1 month.....	2	95	313	47.5	156.5	49.2	162.2
Over 1 month to 3 months.....	9	301	582	33.4	64.7	34.6	67.0
Over 3 to 6 months.....	13	130	443	10.0	34.1	10.4	35.3
Over 6 months to 1 year.....	26	513	257	19.7	9.9	20.4	10.3
Over 1 year to 2 years.....	52	585	143	11.3	2.8	11.7	2.9
Over 2 to 3 years.....	52	188	74	3.6	1.4	3.7	1.5
Over 3 to 5 years.....	104	239	38	2.3	.4	2.4	.4
Over 5 years.....		627	120				
Total.....		2,800	2,855				

This table shows how rapidly the weekly rate of separation declines and how entirely out of proportion these separation rates are to the active service-distribution rates. It demonstrates also that the great bulk of the turnover is caused by the separation of those who had served less than one month and that after the 1-to-3-months group is passed the decline in the separation rate is roughly proportionate to the decline of the active service distribution rate. This would seem to indicate that there is no very great amount of avoidable turnover caused by the separation of employees who have served six months or more.

A comparison of the average weekly separation and active-service-distribution rates of common laborers and refinery operatives is made in Table 9. This again shows how much more stable are refinery operatives than common laborers and how much worse the situation is, especially for common laborers, in refinery B than in refinery A.

TABLE 9.—COMPARISON OF WEEKLY RATES (PER 1,000 FULL-TIME WORKERS IN EACH OCCUPATION GROUP) OF ACTIVE AND SEPARATED COMMON LABORERS AND REFINERY OPERATIVES WHO HAD SERVED SPECIFIED PERIODS OF TIME.

Length-of-service group.	Rates per 1,000 full-time workers in each occupation group.							
	On pay roll at end of year (active).				Separated during year.			
	Refinery A.		Refinery B.		Refinery A.		Refinery B.	
	Laborers.	Operatives.	Laborers.	Operatives.	Laborers.	Operatives.	Laborers.	Operatives.
One week or less.....	65.3	58.5	354.8	87.5	814.1	327.5	3,769.9	562.5
Over 1 week to 2 weeks.....	45.2	52.6	345.1	50.0	648.2	216.4	1,548.7	166.7
Over 2 weeks to 1 month.....	42.7	14.6	278.8	58.3	321.6	128.7	942.5	125.0
Over 1 month to 3 months.....	21.6	17.0	204.4	20.9	73.9	35.1	431.0	30.0
Over 3 to 6 months.....	2.3	5.0	52.2	6.3	17.6	12.9	198.3	22.9
Over 6 months to 1 year.....	5.2	7.6	92.9	16.9	5.5	2.5	57.5	6.3
Over 1 year to 2 years.....	2.0	1.7	46.9	11.3	1.3	.7	11.5	2.4
Over 2 to 3 years.....	1.0	1.7	15.0	4.2	1.2	1.1	5.8	1.6
Over 3 to 5 years.....	.7	1.1	6.0	4.3	.2	.4	1.1	.6

NUMBER OF JOBS AFFECTED BY TURNOVER.

Naturally the jobs which have been for the most part occupied by quitters who have worked less than one week are subject to a much higher turnover than the positions which are generally occupied for longer periods. Of course there is no such thing as a group of jobs which are invariably occupied by 10-day men or a group of jobs always occupied by over-one-year men. A job which has been abandoned by a 10-day man may be, and often is, next filled by a man who sticks much longer. Conversely, another job which has been held by a one-to-two-year man may be filled next by a 10-day man. But the fact remains that some jobs in the long run are more likely to be infested with 10-day men and other jobs more likely to be blessed with long-term job holders.

Now it is quite possible to work out, with a close approximation to accuracy, the equivalent number of full-time jobs in any particular occupation which are always occupied by men who have served one week or less, the equivalent number occupied by those who have served over one to two weeks, and so on. These results would amount to a standardized tabulation, in terms of equivalent full-time jobs, of the actual factory situation. For example, say that there are 10 jobs which are occupied for half of the year by men who stuck less than a week and for the balance of the year by men who stuck from six months to a year. This stability situation is fairly represented by saying that there were the equivalent of 5 full-time (i. e., full-year) jobs, each occupied on the average for four days (which is the mean service time of those who had worked one week or less) and an equivalent of 5 full-time jobs, each occupied on the average for nine months (the mean service time of those who had worked six months to one year). This standardization process was worked out, without regard

to occupation, for the aggregate working force of a group of establishments, in a preceding article.¹

The same method is made use of in the present paper in order to indicate the relative number of equivalent full-time jobs in different occupations that were occupied by specified length-of-service groups of employees. This in turn will indicate the number of full-time jobs which are subject to turnover percentages corresponding to the respective service groups. For example, jobs occupied by men serving one week or less are occupied 4 days on the average and must have had, therefore, 91 occupants (365 divided by 4) during the year. This means 90 separations for each full-time worker or a turnover of about 9,000 per cent for each job in this standardized group of equivalent full-time jobs. Similarly there is the definite (but much lower) turnover percentage of 33 to be assigned to the group of (active or separated) employees who had worked from 6 months to 1 year.

This scale of "length-of-service turnover percentages" together with the corresponding series of mean periods of service are the points of departure for Table 10, which, on this mean-length-of-service basis, indicates the numbers of equivalent full-time jobs affected by varying degrees of turnover:

TABLE 10.—SEPARATION FREQUENCY DISTRIBUTION OF JOBS DIRECTLY AFFECTED BY TURNOVER.

Length-of-service group.	Approximate number of weeks in period.	Mean length of service (days).	Corresponding percentage of turnover for the year.	Total number of separated employees who had served each classified period. ^a	Total number of man-days worked by each group.	Equivalent number of full-time jobs in each group.	Number of equivalent full-time jobs affected per 1,000 full-time workers.	Average weekly number of equivalent full-time jobs in each group.	Average weekly number of equivalent full-time jobs affected per 1,000 full-time workers. (b)
	1	2	3	4	5	6	(b)	8	9
Refinery A:									
One week or less.....	1	4	9,025	222	888	2.43	5.14	2.43	5.14
Over 1 week to 2 weeks.....	1	11	3,218	172	1,892	5.18	12.33	5.18	12.33
Over 2 weeks to 1 month.....	2	22	1,559	181	3,982	10.91	25.98	5.46	13.00
Over 1 month to 3 months.....	9	60	508	206	12,360	33.86	80.62	3.76	8.95
Over 3 months to 6 months.....	13	135	170	83	11,205	30.70	73.10	2.36	5.61
Over 6 months to 1 year.....	26	274	33	44	12,056	33.03	78.64	1.27	3.02
Over 1 year to 2 years.....	52	548	.....	24	13,152	36.03	85.14	.69	1.65
Over 2 years to 3 years.....	52	913	.....	26	23,738	65.03	154.83	1.25	2.98
Over 3 years to 5 years.....	104	1,460	.....	11	16,060	44.00	104.76	.42	1.01
Refinery B:									
One week or less.....	1	4	9,025	629	2,516	6.89	7.14	6.89	7.14
Over 1 week to 2 weeks.....	1	11	3,218	256	2,816	7.71	7.97	7.71	7.97
Over 2 weeks to 1 month.....	2	22	1,559	313	6,886	18.87	19.55	9.44	9.78
Over 1 month to 3 months.....	9	60	508	582	34,920	95.67	99.14	10.63	11.01
Over 3 months to 6 months.....	13	135	170	443	59,805	163.85	169.79	12.60	13.06
Over 6 months to 1 year.....	26	274	33	257	70,418	192.92	199.92	7.42	7.69
Over 1 year to 2 years.....	52	548	.....	143	78,364	214.69	222.48	4.13	4.28
Over 2 years to 3 years.....	52	913	.....	74	67,562	185.10	191.81	3.56	3.69
Over 3 years to 5 years.....	104	1,460	.....	38	55,480	152.00	157.51	1.46	1.51

^a These figures are reduced to weekly averages in Table 8 of this article.

^b Based on 420 full-time workers for refinery A and 965 full-time workers for refinery B.

^c MONTHLY LABOR REVIEW, February, 1919, pp. 59-62. See especially Table 8 on p. 60.

The mean length of service in days for each group is shown in column 2. The validity of this basis for use as a point of departure in computing the equivalent number of full-time jobs affected by varying intensities of turnover has been strongly confirmed by the actual experience of two Cincinnati shops, where the actual mean service figures proved to be almost exactly the same as the figures assumed in the column marked 2 of Table 10.¹ As explained above, the turnover percentages corresponding to each under-one-year service group, as given in column 3, are based on the number of days in the calendar year² as compared with the mean days of service. The figures in column 4 are taken from Table 4. Multiplying these by the corresponding mean length of service, shown in column 2, we find the number of man-days worked by the different tenure groups of separating employees shown in column 5. The number of man-days worked divided by 365 gives (as shown in column 6) the equivalent number of full-time jobs affected on the average by the designated percentages of turnover. The equivalent numbers of full-time jobs are reduced to weekly averages³ by dividing by the approximate number of weeks in the range of the respective time groups as shown in column 1; these weekly averages appear in column 8. The total number and the average weekly number of equivalent full-time jobs in columns 6 and 8, respectively, are reduced to rates per 1,000 full-time workers, shown in columns 7 and 9, on the basis of the average number of full-time workers—420 for refinery A and 965 for refinery B.

In Table 11 there are arrayed together the standard scale of turnover percentages for the different length-of-service groups and the number of equivalent full-time jobs affected by each per 1,000 full-time workers. This table shows very strikingly the relation between the intensity of turnover and the equivalent number of full-time jobs affected by it. In the three shortest service groups in refinery A there are 5, 12, and 26 equivalent full-time jobs per 1,000 full-time workers affected by turnover intensities of 9,025, 3,218, and 1,559 per cent, respectively. In contrast with this it appears that in the 1-to-3 months, 3-to-6 months, and 6-months-to-1-year groups, there were 81, 73, and 79 equivalent full-time jobs affected by turnover intensities of 508, 170, and 33 per cent, respectively. It is to be noted that in the shorter service groups the number of jobs affected per 1,000 full-time workers is not greatly different in the two plants, but that in the longer service groups the number of jobs affected per 1,000 appears to be vastly larger in refinery B than in refinery A.

¹ See MONTHLY LABOR REVIEW, February, 1919 (p. 59), where the detailed Cincinnati figures are given.

² Of course, the number of working days put in by a full-time employee is less than 365. But in this case the only consistent method is to use this figure as the dividend, because the establishment records showing the length of service of individual employees run in terms of calendar periods; that is, they include Sundays and other days not actually worked.

³ The average weekly numbers of employees in each service period are not shown in Table 10. They appear in Table 8.

TABLE 11.—ESTIMATED NUMBER AND RATE PER 1,000 FULL-TIME WORKERS OF EQUIVALENT FULL-TIME JOBS AFFECTED BY SPECIFIED INTENSITIES OF TURNOVER, CLASSIFIED BY LENGTH-OF-SERVICE GROUPS.

Length-of-service group.	Yearly per cent of turnover for each group.	Equivalent full-time jobs affected. ¹	
		Estimated number.	Rate per 1,000 full-time workers.
Refinery A:			
One week or less.....	9,025	2.43	5.14
Over 1 to 2 weeks.....	3,218	5.18	12.33
Over 2 weeks to 1 month.....	1,559	10.91	25.98
Over 1 to 3 months.....	508	33.86	80.62
Over 3 to 6 months.....	170	30.70	73.10
Over 6 months to 1 year.....	33	33.03	78.64
Over 1 to 2 years.....		36.03	85.14
Over 2 to 3 years.....		65.03	154.83
Over 3 to 5 years.....		44.00	104.76
Refinery B:			
One week or less.....	9,025	6.89	7.14
Over 1 to 2 weeks.....	3,218	7.71	7.97
Over 2 weeks to 1 month.....	1,559	18.87	19.55
Over 1 to 3 months.....	508	95.67	99.14
Over 3 to 6 months.....	170	163.85	169.79
Over 6 months to 1 year.....	33	192.92	199.92
Over 1 to 2 years.....		214.69	222.48
Over 2 to 3 years.....		185.10	191.81
Over 3 to 5 years.....		152.00	157.51

¹ From columns 6 and 7 of Table 10.

Calculations similar to that made in Table 10 for the whole working force were made for each occupation group in both refineries. The figures representing the intermediate stages of the calculations are not presented here. The derived figures showing for each occupation and length-of-service group, the number of equivalent full-time jobs affected per 1,000 full-time workers in each occupation group are presented in Table 12 alongside of the length-of-service turnover percentage scale.

TABLE 12.—AVERAGE WEEKLY RATE PER 1,000 FULL-TIME JOBS IN EACH OCCUPATION OF THE FULL-TIME JOBS AFFECTED BY SEPARATING EMPLOYEES HAVING SPECIFIED SERVICE RECORDS AND WHOSE JOBS ARE SUBJECT TO CORRESPONDING CLASSIFIED PERCENTAGE OF TURNOVER.

Length-of-service group.	Corresponding percentage of turnover.	Equivalent weekly number of full-time jobs affected per 1,000 full-time workers in each occupation.				
		All employees.	Common laborers.	Refinery operatives.	Skilled mechanics.	Mechanics' helpers and apprentices.	Technical and clerical employees.
Refinery A:						
One week or less.....	9,025	5.14	9.00	3.59		0.22
Over 1 week to 2 weeks.....	3,218	12.33	19.55	6.55		.32
Over 2 weeks to 1 month.....	1,559	13.00	19.40	7.77		.50
Over 1 month to 3 months.....	508	8.95	12.11	5.79		1.60
Over 3 to 6 months.....	170	5.61	6.58	4.68		.43
Over 6 months to 1 year.....	33	3.02	4.07	1.87		.18
Over 1 year to 2 years.....		1.65	1.91	.99		.18
Over 2 to 3 years.....		2.98	2.91	2.81		.20
Over 3 to 5 years.....		1.01	.60	1.58		.06
Refinery B:						
One week or less.....	9,025	7.14	41.50	6.17	0.90	1.45
Over 1 week to 2 weeks.....	3,218	7.97	46.64	5.04	1.46	2.38
Over 2 weeks to 1 month.....	1,559	9.78	56.81	7.54	1.22	2.46
Over 1 month to 3 months.....	508	11.01	70.80	4.96	.90	3.33
Over 3 to 6 months.....	170	13.06	73.27	8.42	3.13	4.21
Over 6 months to 1 year.....	33	7.69	43.45	4.58	2.68	2.05
Over 1 year to 2 years.....		4.28	17.61	3.63	1.42	2.51
Over 2 to 3 years.....		3.69	14.51	4.00	.20	2.48
Over 3 to 5 years.....		1.51	4.07	2.42	.93	.52

This table brings out the two vital determining factors in the labor turnover situation at the two plants; the intensity of turnover to which the separating employees in various stability groups are subject and the relative size of these groups, i. e., the equivalent number of full-time jobs affected. The figures show the quantitative stability relations between the different service groups and the different occupations and between the two refineries. For example, in refinery B, for each week (on the average) of the two-weeks-to-one-month service group, there were affected with its particular intensity of turnover—1,559 per cent—57 equivalent full-time common laborers' jobs per 1,000 full-time laborers in the plant and 8 refinery operatives' jobs per 1,000 refinery operatives. Similarly, in the same service group in refinery A, and affected with the same intensity of turnover there are 19 equivalent full-time laborers' and 8 equivalent full-time refinery operatives' jobs per 1,000 full-time laborers and operatives, respectively.

It appears that common labor is by far the most unstable of all the occupation groups, that it is more unstable in refinery B than in refinery A and that in refinery A the turnover is about twice as heavy among common laborers as it is among refinery operatives, whereas in refinery B it is at least five times as heavy among common laborers as it is among refinery operatives. Next in degree of instability to these two groups come mechanics' helpers and apprentices, and last of all, the maximum stability group of technical and clerical employees. Taking the working force as a whole it is evident that 5 equivalent full-time jobs per 1,000 full-time workers in refinery A and 7 in refinery B were affected by a turnover of 9,025 per cent.

CONCLUSION.

It is quite certain that whatever plans are to be considered for the reduction of the turnover at such establishments as the two reported in these pages must be formulated with primary reference to their application to and effect upon unskilled labor and the transient short-service employees of all occupations. It is significant that the bonus, pension, and insurance plans in force at both refineries provide for a beginning of their respective benefit payments only after the 12 heavy turnover months have passed and the great bulk of the high-frequency quitters have quit. The would-be-turnover-reducing plans seem only to begin where the turnover ends. Most of the turnover in all occupations is due to the separation from service of employees who have served less than one year. Figures given above show that at one refinery 93 per cent and at the other 87 per cent of the turnover was caused by quitters whose length of service had been less than one year. The aforementioned benefit plans apply only to those who have served more than one year. Apparently the 10-

day man can not be induced to stick to a job merely by assuring him a length-of-service bonus if he waits fifty-odd weeks. A system of length-of-service bonuses of progressively increasing amounts and based upon service records beginning with one week or one month might have some effect in reducing turnover. The usual over-one-year plans do not appear to have any effect whatever upon the turnover. It goes without saying that if any classes of employees are to be excluded from the benefits of length-of-service bonus plans it should certainly not be the semiskilled and unskilled laborers.

There seems to be no doubt that the employment bureau at refinery A has a definitely favorable influence upon the turnover. The lower stability of the force, especially the common labor force, at refinery B is probably due in part to the lack of any centralized system of handling the employment work of the refinery. Refinery A, despite serious disadvantages in regard to transportation, housing, etc., has made a much more favorable showing—a record which must be due in part to its centralized employment machinery.

LABOR TURNOVER IN MILWAUKEE.

BY WILLIAM F. KIRK.

Immediately following the conference of the National Association of Employment Managers held at Rochester, N. Y., May 9-11, 1918, the United States Bureau of Labor Statistics began a limited study of the various currents that influence the flow of labor from one industrial establishment to another, commonly referred to as "labor turnover."

The 800 delegates to the Rochester conference, consisting mainly of employment managers, expressed much concern over the extent of the shifting of labor during the war period, and the consequent economic waste represented in the cost of hiring and training new employees. While no figures were obtainable from which an accurate estimate of the cost of turnover per man could be made, this is known to be a very considerable item of expense. It is of interest to mention briefly the principal elements entering into the replacement cost.

Probably the least of these is the clerical work in connection with the process of hiring the new employee, although some expense is entailed in the keeping of employment records, interviewing applicants, looking up their references as to experience and character, and in general endeavoring to fit the man to the job, as it is done by the manager of the modern functionalized employment bureau. More important items of cost arise from the time spent by foremen and assistant foremen in instructing new employees and in the decreased production during the early period of employment, while still greater expense results from the increased wear and tear of tools and machinery handled or manned by new employees and from the great quantity of materials and work spoiled or damaged by them. If either the machinery or the raw material is of a very expensive character, these two cost items, due to such damage by the inexperienced employee, may soon run into thousands of dollars.

A decision of great importance reached by the Rochester conference relates to the correct method of computing the turnover. It was decided to use as a basis the average number of employees actually at work from day to day throughout the period covered rather than the old method of using the average number on the pay roll. Obviously, the method formerly used was erroneous because it did not take into account absenteeism, which resulted in a very considerable per-

centage of the turnover being included in the base and thus made the turnover appear to be much less than it really was.

The special committee's report on the standard definition of labor turnover and method of computing the percentage of labor turnover, as adopted by the Rochester conference, included the following statements:¹

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

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

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

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

In order readily to compute the turnover on the basis indicated above it is necessary for an establishment to keep attendance records, not infrequently called force reports. Some establishments were found in which were kept a daily summary of the number of employees on the pay roll, the number present each day, and the number of absentees. In such cases it was a very simple matter to arrive at the average number actually working throughout the year.

In order to determine the average number actually working in an establishment in which no daily force sheets are regularly kept, the following method was found helpful. The aggregate labor hours of the period covered, exclusive of boosted time, were divided by the total hours the plant was in operation. In such cases an allowance for absenteeism equivalent to the average daily proportion of absentees during a representative period was necessary. The number of positions or, in other words, the average number actually working may be arrived at by dividing the aggregate labor hours by the total operation hours plus the percentage of absenteeism.

In cases where the plant operation hours can not be found, the labor turnover base may be arrived at by dividing the total labor hours by the number of annual hours of labor of a full-time worker, the latter number being found by multiplying the regular weekly hours of a laborer by 52, and deducting therefrom the hours lost as a result of legal holidays, vacations, and any other periods in which the

¹ See MONTHLY REVIEW for June, 1918 (pp. 172, 173), for full report of the committee.

establishment was closed down and also the number of hours representing the average daily percentage of absenteeism.

This article has to do with the turnover in establishments in Milwaukee and the immediate vicinity, the work in certain other localities having been covered by articles in previous issues of the REVIEW.¹

The study was designed not only to locate definitely the sources of turnover and the causes thereof, but also to ascertain what practical methods are being employed by those establishments that have been the more successful in the construction of safeguards for holding and conserving their labor forces or, in other words, reducing the turnover.

The general interest in the study of labor turnover at the Rochester conference was found, in no less degree, among employment managers in Milwaukee establishments. Little more than two years prior to this study, there were apparently only a few establishments in Milwaukee having centralized employment bureaus, whereas to-day there are many such establishments, the bureaus being functionalized to the extent that the hiring is done in a careful and systematic way, in so far as the present abnormal conditions will permit, and, in most of the plants visited, an employee is not discharged, except for cause, if there is a job in the plant that he can fill. Quite a number of the establishments visited were necessarily omitted from this report, however, because their employment systems had been in operation for only a few months and it was deemed advisable to schedule no plant for a shorter period than six months.

Twenty-one establishments, ranging in size from less than 300 to more than 4,500 employees, were found which had records available for filling the more essential parts of the turnover schedule for six months or more, 10 of these having furnished the data for a full year.

In one establishment a more intensive study was made, the turnover data having been obtained by occupations, a special discussion of which appears on subsequent pages.

Table 1 shows by nature of separations for each establishment the number and per cent of separations during the periods covered, and the per cent of turnover per month.

¹ June, 1918, Labor turnover of seamen on the Great Lakes, pp. 46-53; October, 1918, Labor turnover and employment policies of a large motor vehicle manufacturing establishment, pp. 1-18; January, 1919, Labor turnover in Cleveland and Detroit, pp. 11-30; February, 1919, Labor turnover in the San Francisco Bay region, pp. 45-62; and March, 1919, Labor turnover in Cincinnati, pp. 35-52.

TABLE 1.—LABOR TURNOVER PER MONTH IN EACH ESTABLISHMENT, BY NATURE OF SEPARATIONS.

Es- tab- lish- ment num- ber.	Industry.	Number of months covered.	Average number of em- ployees actually working during period covered.	Number of persons hired during period covered.	Separations.										Per cent of turnover per month during period covered.
					Number.					Per cent.					
					Dis- charged.	Laid off.	Entered military service.	Quit.	Total.	Dis- charged.	Laid off.	Entered military service.	Quit.	Total.	
1	Chemicals.....	6	876	2,830	125	175	159	1,412	1,871	7	9	8	75	100	36
2	Electrical apparatus.....	6	1,181	1,525	135	24	90	1,217	1,466	9	2	5	83	100	21
3	Foundry and machine shop products..	12	1,665	2,435	216	170	280	2,082	2,748	8	6	10	76	100	14
4	do.....	12	238	165	.....	.....	22	197	219	.....	.....	10	90	100	8
5	do.....	7	998	1,221	118	.....	82	1,025	1,225	10	.....	7	84	100	18
6	do.....	12	1,300	2,634	116	6	146	2,815	3,083	4	(¹)	5	91	100	20
7	do.....	12	1,246	4,157	362	323	233	2,759	3,677	10	9	6	75	100	25
8	do.....	6	542	748	60	14	5	656	735	8	2	1	89	100	22
9	do.....	12	638	931	123	8	63	609	803	15	1	8	76	100	11
10	do.....	12	4,732	6,374	431	.....	453	5,815	6,699	6	.....	7	87	100	12
11	do.....	6	524	352	31	.....	28	331	390	8	.....	7	85	100	12
12	Glue.....	6	346	235	7	.....	26	272	305	2	.....	8	89	100	15
13	Hosiery and knit goods.....	6	820	395	30	11	.....	346	387	8	3	.....	89	100	8
14	do.....	7	468	554	78	.....	15	408	501	16	.....	3	81	100	15
15	Illuminating gas.....	12	839	1,713	(²)	(²)	(²)	(²)	1,561	(²)	(²)	(²)	(²)	100	16
16	Lamps, mazda.....	12	464	574	105	.....	13	332	450	23	.....	3	74	100	8
17	Leather, tanned and curried.....	6	3,168	3,114	302	15	112	2,880	3,309	9	(¹)	3	87	100	17
18	Metals, stamped ware, household.....	6	540	804	45	40	30	716	831	5	5	4	86	100	26
19	do.....	8	1,163	4,630	(²)	(²)	(²)	(²)	4,684	(²)	(²)	(²)	(²)	100	50
20	Rubber goods.....	12	1,275	4,859	298	22	216	4,053	4,589	6	(¹)	5	88	100	30
21	Electric railway, light, and power.....	12	3,643	3,058	460	55	350	2,863	3,728	12	1	9	77	100	9

¹Less than one-half of 1 per cent.²Not reported.

[10021]

Because of the varying periods covered in the different establishments, many of which did not have data available for a full year, the per cent of turnover in this table was reduced to a monthly basis to facilitate comparison.

One establishment, No. 17, in making a partial classification, by periods of service, reported the number of separations for the entire year, but, for the purpose of working out the turnover, as shown in Table 1, reported the number of separations for only six months. This was due to the fact that much labor was involved in arriving at the average number actually working and because officials of the company, owing to its depleted office force, desired to confine the work to a period of six months. Obviously, it was necessary to request the number of separations for the same period.

It will be observed, also, from Table 1, that, with the exception of two establishments where the desired data were not available, the total number of separations has been segregated into "discharged," "laid off," "entered military service" and "quit," the number and per cent being shown for each classification, as recommended by the special turnover committee at the Rochester conference. It should be explained that the per cent has been computed to the nearest whole number, being increased when the remainder was one-half or more; consequently the details may not always total exactly 100.

A percentage summary of such data is herewith presented in tabular form for the 19 establishments in which the segregation was made:

TABLE 2.—NUMBER AND PER CENT OF EMPLOYEES SEPARATED FROM SERVICE, BY CAUSE.

Cause.	Number.	Per cent.
Discharged.....	3,042	8
Laid off.....	863	2
Entered military service.....	2,323	6
Quit.....	30,788	83
Total.....	37,016	100

Under "discharged" are included all involuntary permanent separations, usually termed "discharged for cause," while "laid off" includes separations due to slack work, temporary shutdowns, shortage of material, and, sometimes, as a disciplinary measure, to minor infractions of rules.

Under "quit" have been included not only the voluntary separations but also those due to death, marriage, pensions, etc. It is believed, too, that this classification includes a considerable number who left the establishments to enter the naval or military service without so stating; consequently the number shown in the table as

having "entered military service" is probably less than the actual number.

Table 2 shows 83 per cent to have quit voluntarily. These separations were undoubtedly due in a large measure to the abnormal conditions prevailing during the period covered by this report, such as the unusually high wages paid in the shipyards, munitions plants, and other industries essential to the conduct of the war.

The per cent of total separations due to "discharge" was necessarily low because of the difficulty in obtaining help. One establishment did not discharge a single employee during the period covered. In another, however, 23 per cent of the separations were attributable to this cause. Only two other plants reported as high as 15 per cent of their separations due to discharges.

Similarly, because of the shortage of labor and the difficulty in holding their employees, most of the establishments kept the "lay offs" down to a minimum, several showing none whatsoever, though in each of two establishments the separations under this general classification reached 9 per cent of the total.

While, as stated above, the number of separations reported as having been due to the worker entering military service is, on the whole, probably lower than actually occurred, yet it is three times that chargeable to "lay offs" and is equal to three-fourths of that due to "discharges." In the cases of one large and one small establishment, 10 per cent of the total separations were classified under "entered military service." In the instance of the smaller plant not a single employee was discharged or laid off during the 12 months. While this plant was classed as nonessential, the turnover, with two exceptions, was the lowest shown. It is believed that the low turnover was due to the steady work offered and to the rather high wages paid, because, while a complete classification of employees, by periods of service, could not be obtained, further questioning brought out the fact that more than one-third of the company's employees had been in its service for more than five years. Also the element of personal contact between employer and employee seems to have made its influence felt in this establishment to a greater extent than is ordinarily the case.

Since the periods covered in the reports from the 21 establishments vary from 6 to 12 months, it is difficult to arrive at any comparable basis for discussion of the turnover because no exact aggregate average of the number of employees actually working in these establishments can be made and, therefore, the general average turnover per month for all plants can not be computed. However, for the 10 establishments which reported for the full year the average number of employees actually working was 16,040 and the average number of separations per month was 2,297, resulting in a general average

turnover of 14 per cent per month for this group. Likewise the eight establishments which reported data for six months showed an average of 7,997 actually working during that period, an average of 1,551 separations per month, and an average monthly turnover of 19 per cent.

This indicates that those establishments which have had their employment systems in operation for a year or more have been able to cut down the turnover to a much greater extent than those whose present systems have been more recently established. It is possible that the seasonal fluctuation may account in part for the very much greater turnover in the eight establishments which reported for only six months because of the recruiting of labor for the lake steamers in early spring. However, the six months' period covered extended, in almost every case, from January to June, inclusive, which period splits both the low and the high turnover season in this locality.

An article entitled "Labor turnover and employment policies of a large motor vehicle manufacturing establishment," published in the MONTHLY LABOR REVIEW for October, 1918, deals with the seasonal turnover where very similar conditions prevail. The figures for the period of three years ending May 31, 1918, as presented in the article mentioned, show that the average per month for the first six months of the calendar year is almost exactly the same as the average for the second six months, and that consequently these averages are the same as the monthly average for the entire three years.

It is of interest to note, also, that the 10 plants reporting for a full year, and which show the lower turnover, had an average of 1,604 employees actually working, while the eight plants reporting for six months, and showing the higher turnover, averaged an even 1,000.

In this connection, attention is directed to Table 3 in which the 21 establishments are classified by monthly per cent of turnover, the number and per cent of employees actually working being shown for each percentage group.

TABLE 3.—NUMBER OF ESTABLISHMENTS AND NUMBER AND PER CENT OF EMPLOYEES ACTUALLY WORKING, CLASSIFIED BY MONTHLY PER CENT OF TURNOVER.

Classified monthly per cent of turnover.	Number of establishments.	Average number actually working.	Per cent.
Under 10 per cent.....	4	5,165	19
10 and under 15 per cent.....	4	7,559	28
15 and under 20 per cent.....	5	5,819	22
20 and under 25 per cent.....	3	3,023	11
25 and under 30 per cent.....	2	1,785	7
30 and under 40 per cent.....	2	2,151	8
Over 40 per cent.....	1	1,163	4
Total.....	21	26,666	100

The 21 establishments had an average of 26,666 employees actually working, 19 per cent of whom were employed in the four establish-

ments which reported a turnover of less than 10 per cent per month. Looking at the higher turnover groups in the table, we find that the three establishments which reported a turnover of 30 per cent or more per month had only 12 per cent of the average number of employees actually working in the 21 plants. Likewise, the one establishment with a turnover greater than 40 per cent accounted for only 4 per cent of the average number working in the 21 plants.

Generally speaking, the higher turnover was found among the unskilled laborers, though several exceptions to this rule were found. Various reasons were given for the high turnover among unskilled laborers. All said that help was scarce and that therefore they could not be as careful in the selection of men as they would otherwise be. Much of the common labor was necessarily recruited from the class known as "floaters," and, as the term indicates, these do not stay very long at any job. The report from practically every plant visited was that the general unrest among the unskilled laborers and the high wages offered in war industries plants were the principal causes of the high turnover.

The principal exceptions to the general rule that the highest turnover is among the unskilled laborers may be briefly mentioned. One stamped metal-ware establishment reported the greatest turnover in the annealing and galvanizing departments, the turnover in these places being due to the nature of the work in front of the furnaces and over the kettles. Another establishment, engaged in the manufacture of chemicals, reported that the turnover, in addition to being high among unskilled laborers, was especially high also in the operation work in the dye plants and among ash pullers, this latter job being a heavy one and subject to excessive heat. In a foundry and machine shop a very high turnover was found among the helpers on heavy operations and among wheel grinders, due to the hard work.

In a leather plant the greatest turnover was found among employees in the beam house and tacking departments. Work in the beam house is wet and the odor from the hides is objectionable. The temperature in the tacking room, where hides are tacked on frames, is 80 degrees and, furthermore, the constant handling of tacks causes the fingers to become sore.

The lower turnover among skilled employees was generally ascribed to the higher wages and to the fact that they were a more settled and intelligent class of workers, not so much inclined to shift but looking for advancement in their particular lines. In one hosiery and knit-goods establishment the very low turnover among day spinners was ascribed mainly to the foreman's splendid management.

Table 4 shows the per cent of employees and of separations in each specified length of service period:

TABLE 4.—NUMBER AND PER CENT OF EMPLOYEES AND OF SEPARATIONS IN EACH SPECIFIED INDUSTRY, CLASSIFIED BY PERIODS OF SERVICE.

110451°-19-5 [10071]	Es-tablish-ment number.	Industry.	Number of mos. covered.	Number on pay roll at end of period covered.	Per cent of number on pay roll in each specified length-of-service period.											Number of separations during period covered.	Per cent of separations in each specified length-of-service period.															
					1 wk. or less.	Over 1 wks. to 2 wks.	Over 2 mo. to 1 mos.	Over 1 to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 year.	Over 1 year to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.		1 wk. or less.	Over 1 wks. to 2 wks.	Over 2 mo. to 1 mos.	Over 1 mo. to 3 mos.	Over 3 mos. to 6 mos.	Over 6 mos. to 1 year.	Over 1 year to 2 yrs.	Over 2 yrs. to 3 yrs.	Over 3 yrs. to 5 yrs.	Over 5 yrs.	Total.					
1	Chemicals.....	6	1,847	10	10	21	28	8	10	9	4	.....	100	1,871	16	9	24	29	12	8	2	(1)	.....	100						
2	Electrical apparatus.....	6	1,337	5	4	8	18	10	12	17	11	3	12	1,466	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100								
3	Foundry and machine shop products.....	12	1,893	1	4	9	17	14	10	15	5	12	10	2,534	23	10	14	22	12	9	4	2	3	(1)	100							
4	do.....	12	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100	219	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
5	do.....	7	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100	1,225	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
6	do.....	12	1,350	3	3	4	10	8	13	19	9	6	26	3,083	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
7	do.....	12	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100	3,677	36	13	17	15	6	7	4	2	1	1	100							
8	do.....	6	524	6	6	8	10	12	9	11	9	10	19	4,734	29	22	15	10	10	7	4	3	.....	(1)	100						
9	do.....	12	655	1	1	4	10	11	13	20	7	10	22	803	14	16	17	15	15	9	7	3	1	2	100							
10	do.....	12	4,858	3	3	6	10	11	9	13	11	8	26	6,699	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
11	do.....	6	514	12	9	8	8	6	11	12	6	4	25	390	21	25	16	10	7	9	6	2	1	3	100							
12	Glue.....	6	363	5	3	4	15	5	9	11	7	8	34	305	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
13	Hosiery and knit goods..	6	777	1	1	5	6	7	12	21	15	11	20	876	27	5	17	(6)	17	9	11	4	5	4	100							
14	do.....	7	520	3	5	10	17	12	9	28	18	(7)	(7)	100	501	27	18	11	13	15	7	8	1	(7)	(7)	100						
15	Illuminating gas, etc.....	12	767	2	1	2	8	16	8	19	13	8	23	1,561	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
16	Lamps, mazda.....	12	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100	450	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
17	Leather, tanned and curried.....	8	12	2,892	8	(10)	5	11	15	(12)	21	12	9	13	30	(14)	100	6,235	9	24	(10)	22	11	23	(12)	21	15	11	(16)	(16)	(16)	100
18	Metals, stamped ware, household.....	6	549	3	4	7	18	17	11	9	5	5	21	831	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
19	do.....	8	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100	4,684	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
20	Rubber goods.....	12	1,502	11	7	8	21	12	16	12	5	4	4	100	4,589	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	100							
21	Electric railway, light, and power.....	12	4,208	2	3	5	12	13	11	12	6	5	32	100	3,728	8	7	13	25	17	13	7	2	3	5	100						

¹ Less than one-half of 1 per cent.

² Not reported.

³ Not including 214 employees whose periods of service were not reported.

⁴ Not including 1 employee whose period of service was not reported.

⁵ Included in "3 months to 6 months."

⁶ Including "1 month to 3 months."

⁷ In operation less than 3 years.

⁸ Data for Table 1 were reported for only 6 months.

⁹ Including "over 1 week to 2 weeks."

¹⁰ Included in "one week or less."

¹¹ Including "3 months to 6 months."

¹² Included in "1 month to 3 months."

¹³ Including "over 5 years."

¹⁴ Included in "3 years to 5 years."

¹⁵ Including all who served over 1 year.

¹⁶ Included in "over 1 year to 2 years."

According to the above table eight establishments were able to make a percentage classification, by periods of service, of the number of employees on the pay roll at the close of the respective periods covered, and a similar classification of employees separated from service during the same periods. One other establishment made both classifications in a partial way only. Fifteen were able to make the first, nine were able to make the second, and four were not in a position to make either. The total number of employees upon which the percentage classification was based has been shown in each case. Also, for the sake of convenience, the establishment number, the industry, and the period covered, just as they appear in Table 1, have been repeated in Table 4.

A summary, by identical length-of-service periods, was made of the 10,938 employees still on the pay rolls and of the 11,437 separated from service during the periods covered by the eight establishments that had the data for both classifications, and the tabulation is here presented in percentage form:

TABLE 5.—PER CENT OF EMPLOYEES IN SERVICE AT END OF PERIODS COVERED AND OF EMPLOYEES SEPARATED FROM THE SERVICE DURING SAME PERIODS IN EIGHT ESTABLISHMENTS, BY LENGTH OF SERVICE.

Length of service.	Per cent.	
	In employ.	Separated from service.
One week or under.....	4	17
Over 1 week to 2 weeks.....	5	11
Over 2 weeks to 1 month.....	9	16
Over 1 month to 3 months.....	¹ 15	20
Over 3 months to 6 months.....	² 11	14
Over 6 months to 1 year.....	11	10
Over 1 year to 2 years.....	14	6
Over 2 years to 3 years.....	7	2
Over 3 years to 5 years.....	6	2
Over 5 years.....	19	2

¹ Not including 1 per cent, periods of service, one month to six months.

² Including 1 per cent, periods of service, one month to six months.

It will be observed from the above table that only 18 per cent of those still in the service had not been there more than one month, as compared with 44 per cent of those separated from service who had not been in employ more than one month. Looking at the longer periods of service, we find that 46 per cent of those still in employ had served more than one year, while only 12 per cent of the number separated from service had been in employ more than one year and only 6 per cent more than two years.

Inquiry of employment managers at the plants visited as to what methods were employed in their efforts toward reducing the turnover led naturally to the question as to who did the hiring and the firing. Of the 21 establishments scheduled, there were four in which both the

hiring and the firing were centralized in the employment manager and two of these showed the lowest turnover found, with the exception of one small plant, previously mentioned, which showed the same per cent per month. In nine other establishments the hiring was done by the employment manager, in one it was sometimes done by the employment manager, and sometimes by the foreman, in two it was done by the foremen only, in one by the superintendent, in three by the superintendent and foremen, and in the remaining one by the assistant general superintendent and the general foreman.

In addition to the four plants in which the power to discharge is centralized in the employment manager, there was one in which the department heads cooperated with the employment manager and one in which investigation was made by the employment manager before the foremen could make discharges. There was one in which the discharges were made by the assistant general superintendent, three by the superintendents, seven by the foremen, and three by the foremen and superintendents.

When asked as to their manner of dealing with absentees, several employment managers said they had no hard and fast rule as to the length of time an employee might remain away before being dropped from the pay rolls, two said that such cases were investigated on the first day of absence and the employee dropped immediately unless a good excuse was offered, four reported that absentees were dropped after two days, two allowed three days, one four days, one allowed a week, another two weeks, one a half month, two a month, one six weeks, and one carried the names on the rolls until the end of the quarter year because the bonus allowance was adjusted quarterly.

Practically every plant visited had some arrangement for first-aid treatment, more than half of them having first-aid hospitals, with trained nurses in charge and physicians either on duty or subject to call. One had a visiting nurse also.

Generally speaking, the working conditions in the 21 plants may be said to be good. Six had installed exhaust systems for taking care of the smoke, dust, etc., and in several special attention had been given to the lighting system.

Modern toilets and wash rooms were provided in each plant; in two plants there were shower baths; most of them had lockers; and two provided cloak rooms, with a system of control.

Nearly all the establishments had installed some form of bubbler system for drinking water and three furnished artesian water from their own wells. Lunch rooms were provided in three plants for the use of female employees, only; in four for both males and females; one additional establishment provided a room and necessary arrangements where female employees might warm their lunches, while

another furnished a room in which coffee was served to males and females at two cents a pint.

Some establishments in outlying suburban villages reported a shortage of houses and one company had erected 60 dwellings for the use of its employees. These same establishments said that transportation facilities were not what they should be and one company, whose plant was located several miles from the city, not only reimbursed its employees in the sum of transportation costs but provided a train of private coaches to convey the men from the village railroad station to the plant and return. The location of most of the plants in the city is such that a large proportion of the employees live within walking distance. For those who do not, the street car service appeared to be good.

One company presents each employee with \$500 life insurance at the expiration of the first three months service. This amount is gradually increased until at the expiration of the fourth year of service it reaches \$1,000.

Mention will be made, somewhat in detail, of four establishments, one of which supplied the turnover data, by occupations, for a period of six months, one in which the turnover was only 9 per cent, and two in which it was only 8 per cent per month.

The establishment that filled all parts of the schedule by occupations was a foundry and machine shop and is shown as No. 8 in Tables 1 and 4. The turnover data for each occupation is shown in the following table:

TABLE 6.—MONTHLY TURNOVER IN ONE ESTABLISHMENT (FOUNDRY AND MACHINE SHOP) FOR 6 MONTHS ENDING AUG. 31, 1918.

Occupations.	Average number of employees actually working.	Number of separations (6 months).	Turnover per cent per month.
Molders, iron.....	163	240	25
Molders, iron, helpers.....	132	192	24
Chippers, hand.....	33	65	33
Chippers, air hammer.....	4	10	42
Core makers.....	58	68	12
Laborers.....	48	31	11
Laborers, core room.....	35	69	33
Grinders.....	20	17	14
Rolling room men.....	9	11	19
Truckers.....	4	9	38
Pattern makers.....	17	8	8
Machinists.....	5	2	7
Machinists' helpers.....	1	2	33
Carpenters.....	6	2	6
Engineers.....	2	3	25
Firemen.....	3	5	28
Electricians.....	2		

In the occupations in which any considerable number of people were employed, the greatest turnover was found among hand chippers and core-room laborers, each having a rate of 33 per cent per

month. It is interesting to note the difference in turnover between male and female employees in these two occupations, although separate data are not shown in the table. The male chippers, who receive 35 to 40 cents per hour, showed 35 per cent per month, and the females, who receive 26 to 30 cents per hour, showed 27 per cent. The male laborers in the core room, at 32.5 to 42 cents per hour, showed a turnover of only 15 per cent while the females, at 25 to 30 cents per hour, showed 67 per cent per month. There was a turnover of 25 per cent per month among the iron molders and, notwithstanding this fact, 30 per cent of the molders still on the rolls at the close of the period covered had been in the company's service more than five years. The turnover among the molders' helpers was 24 per cent per month. No females were employed as molders or helpers.

While the turnover among carpenters, machinists, and pattern makers was low, there were comparatively few employees in those occupations. An exception to the general rule was the low turnover among the laborers, exclusive of those in the core room mentioned above. With quite a large force of male and female coremakers, all on piecework, the turnover was 11 per cent per month among the males and 26 per cent among the females, the average being 12 per cent.

It should be added that there was a reduction of 8 per cent in the total force at the plant during the six months and that this seems to have been distributed about evenly among the principal occupations.

Both the hiring and the firing are centralized in the employment manager, but a discharged employee may appeal to the superintendent of the plant. An employee who absents himself for one week without excuse is dropped from the rolls. Employees are sometimes "laid off," as a matter of discipline, but usually the lay-offs are confined to those physically disqualified and for reduction of force because of slack work. When an employee is discharged it is expected that he will not be rehired and such cases are confined to agitators, trouble makers, those who are lazy, unreliable, or guilty of misconduct, and habitual Monday-stay-at-homes.

The employment manager believes that he has kept down the turnover by the use of job analyses, by close examination of applicants, by assigning them to jobs for which they are best fitted, and by having in his hands the adjustment of all grievances. He reports direct to the general manager.

Shop conditions are apparently good, the building being well lighted and ventilated and provided with wash rooms for both sexes. There is a first-aid hospital in charge of a trained nurse and a lunch service installed in a room specially set aside for woman employees.

Most of the employees live within walking distance, but for those who do not there are street cars which stop at the entrance to the plant.

Considering the abnormal conditions during the period covered and the consequent drain upon the company's force, it is believed that, in the light of facts brought out by the schedule, the employment manager at this plant has at least made a good start toward reducing the turnover. He is in a position to know at all times just which occupations are most affected.

Establishment No. 21 was engaged in the operation of a street railway and in the manufacture of electric light and power. Exclusive of a large number of employees hired for special service, such as snow fighting, and paid at the end of each day's work, and those hired for so short a time as not to get on the company's permanent records, there was a turnover of 9 per cent per month.

The employment manager supervises the hiring of all classes of labor, while the management and department superintendents do the discharging. A discharged employee may appeal to the management and to the Employees Mutual Benefit Association, which has some agreement with the company as to hours of work, etc. Employees absent without excuse are dropped at the end of each half-month. Lay-offs occur when there is a lack of work and for refusing to be transferred to other occupations. A discharge is equivalent to a permanent separation and may be made for infraction of the rules or for incompetency.

When questioned as to what methods were employed to reduce the turnover, the employment manager said that he was expected to select the applicant best qualified and suited to fill the vacancy. A requisition from the department where the vacancy exists sets forth the necessary qualifications and other data as to age, conjugal condition, etc. The employment manager takes into consideration, also, the applicant's build, weight, strength, appearance, experience, nationality, and mentality and every one must undergo a medical examination before being employed. There is no charge to the prospective employee for his examination.

As to training employees, he said that it required from 10 to 12 days to teach a motorman and from 8 to 10 days properly to instruct a conductor, this period having been standardized after years of experience. The instructors are thoroughly efficient and practical. Each student is paid \$1 per day while learning.

In other occupations, the methods of instruction must of necessity be different, some positions requiring long technical training and experience in order to provide detailed familiarity with the property, efficient operation, and reliability in any emergency. It is the policy of the company to make all promotions from the ranks and the work

in many departments is a continued apprenticeship for more important duties. Regular schools are maintained for linemen, substation operators, and salesmen.

There is a labor adjustment committee, the members of which are chosen by popular ballot from each division of the Employees Mutual Benefit Association, which has a contract with the company to furnish an adequate labor supply, and all grievances and complaints may be brought to the attention of the management through the adjustment committee and the benefit association.

The shops and car stations, power houses, substations, and other places of employment are generally regarded as very sanitary and comfortable, with good light and ventilation, and ample toilets, wash rooms, and lockers are found in all departments. In the main office building are bathrooms, library, billiard rooms, bowling alleys, and a theater available for all employees. In the same building, coffee is served from 7.30 a. m. to 4.30 p. m. at 2 cents per cup. Transportation is free to all employees in uniform and with badge.

Establishment No. 16 in the tabulation, a lamp works, reported a turnover of 8 per cent per month, based upon data for 12 months. This establishment showed the lowest percentage of voluntary separations, 74 per cent of the total being recorded as "quits," this term including those who were laid off as a matter of discipline and did not return. None were laid off, excepting as mentioned above, and 23 per cent were discharged, this being by far the largest percentage of discharges found in any Milwaukee plant scheduled. The remaining 3 per cent entered military service, this small percentage being due to the small proportion of male employees. No data were available for classifying employees by periods of service.

The highest turnover was among the unskilled laborers, due to unrest and to an unwillingness to handle the work offered.

The lowest turnover was in the lamp manufacturing operations performed by females, due to the fact that the work was clean, sanitary, and suited to woman workers, and because wages were fair and the environment good. The hiring and discharging are done by the service secretary, who is a woman, but a discharged employee may appeal to the superintendent of the plant.

When an employee is absent the case is investigated by the employment manager and, unless good excuse is given, he or she is dropped immediately or given a period of absence without pay, and is dropped at the expiration of such period upon failure to return promptly. Lay offs may occur also because of lack of material or power; and employees are dismissed for cause. A discharge means a permanent separation.

Upon inquiry as to what further methods, if any, were in effect for reducing the turnover, the statement was made that the company

endeavored to utilize almost every applicant at the employment office, assigning each to the work for which he is best fitted, in the opinion of the service secretary. Each is examined orally and an eye test is made. Girls are started to work at 18 cents an hour on a 50-hour per week basis, and after an intensive training, in an endeavor to develop speed and high efficiency against spoilage, they are put on piecework, where the wages vary from 22 to 35 cents per hour. Apparently the employment manager is given a free rein by the plant manager, to whom she reports direct. She settled the individual grievances as they came up, and no strike or walkout has occurred at the plant since operations began in 1915.

Shop conditions are exceptionally good. The plant is laid out for a correct illumination, as designed by an illuminating engineer, measurements having been taken at each operator's position to determine the intensity of illumination, which varies from 5 to 15 candles, depending upon the requirements.

Special mechanical window operators are installed throughout the building. In departments where gas fires are burned for working the glass, roof ventilators are provided. The room temperature and ventilation are in charge of the service department which conducts tests throughout the day in all parts of the plant, thermometers indicating the temperature and a whirling sling hygrometer the humidity. An effort is made to control both by means of ventilation. Attention has been given also to the matter of eliminating steam, gas, smoke, and dust. Toilets and washing facilities are of approved types. Drinking water is supplied through a system of bubblers. There is a first-aid dispensary in charge of a nurse, and a lunch room is provided.

A goodly proportion of the employees live in the vicinity of the plant, but for those who do not there are four electric lines going within three blocks.

Commenting upon the points mentioned above, an official of the company, who has given much attention to the subject of labor turnover, said that each had its bearing on the turnover, that all of them were taken into consideration in connection with the installation of the plant, as well as with its operation, that they had been in effect since the plant was opened and that it was impossible, therefore, to judge as to the relative effect that each had had on the turnover.

The last plant for consideration, tabulated as No. 13, was a hosiery and knit goods establishment. This plant also showed a turnover of only 8 per cent per month, based, however, upon data for only six months. The turnover data relate to the manufacturing departments only, for the reason that the figures for the rest of the force were unobtainable. The schedule is of more than ordinary interest

because of the fact that none but females were employed in the manufacturing departments.

The higher turnover was reported in the knitting, looping, and mating departments, due no doubt to the facts that knitting requires a learning period of from 12 to 14 weeks, that low wages are paid to loopers during the learning period, and that mating causes rather a strain upon the eyes. The lower turnover was found in all occupations of the glove department, because the learning period is not so long, and in double-sole cutting and top cutting in the knitting department and in boxing and bundling in the packing department, because these occupations are very easy to learn and because wages increase more rapidly in these two departments.

The hiring and firing is in the hands of the employment manager, who is a young woman. A discharged employee may appeal to the superintendent of the plant. When an employee is absent two days in succession, a house visit is made to ascertain the reason for the absence, and the employee is dropped from the rolls unless a satisfactory excuse is given. Lay offs occur in case of slack work. In meritorious cases, the understanding is that sick employees may return to their jobs upon recovery. An employee is regarded as permanently separated from the company's employ when discharged.

When asked as to what further methods she employed to reduce the turnover, the employment manager said that she first carefully explained to the applicant the work, the wages, hours of labor, and general shop rules. The operations upon which the applicant is to be placed are shown to her. If there is a choice of work which she might be able to do successfully, the two or three jobs are shown, and the choice is left to the applicant. The employment manager has the final word in judging as to the qualifications and fitness of the applicant for the job. An eye test is made of every one who applies for work in order to prevent misplacement on jobs requiring good eyesight.

A vestibule school is provided for all beginners on knitting and looping. This school is in charge of a competent instructor who has had both normal school and college training, and she is assisted by three or four operators chosen from the factory. The beginners on knitting and looping are under the supervision of the instructor in the school for twelve to fourteen weeks, after which time they are supposed to be able to handle their own machines and work.

The employment manager has the full support of the works manager and there are frequent consultations on wage schedules and other factory problems. A bonus is paid which amounts to about 13 per cent of the weekly wages and is based upon promptness, attendance, and application. Grievances are adjusted through the employment department.

The building is new and modern, has steam heat and indirect lighting, and the rooms are comparatively free from dust and smoke. Washrooms are provided with open sinks and running warm water. The toilets have tiled floors, with walls of white tiling to the height of 8 feet. In the dressing rooms are open framework coat racks with coat hangers and shelves for hats, parcels, etc. A dispensary and rest room are provided for the employees, with a physician in attendance three days in the week. The plant is well located, so far as transportation facilities are concerned.

RECONSTRUCTION.

CONFERENCE OF GOVERNORS AND MAYORS AT WASHINGTON TO DISCUSS LABOR CONDITIONS.

In response to a telegraphic invitation from the Secretary of Labor, at the instance of President Wilson, the chief executives of most of the States and the mayors of more than 100 representative cities of the country gathered in Washington on March 3, 4, and 5 to take up vital questions affecting business and labor, in an effort to establish a definite nation-wide policy to stimulate public and private construction and industry in general. The Federal Government is anxious to cooperate with the various States and municipalities in order to insure continued prosperity in the interests of manufacturers, merchants, and wage earners.

At the opening session on March 3 the President welcomed the State and city officials in a brief speech outlining the purpose of the conference. "We are met to discuss," he declared, "the proper method of restoring all the labor conditions of the country to a normal basis as soon as possible and to effect any such fresh allocations of labor and endeavor as the circumstances may make necessary."

Following the President, Secretary Wilson, of the Department of Labor, delivered an address in which he discussed in some detail the present labor situation, the necessity of maintaining wages, the great problem of unemployment which now confronts the country, and the desirability of Federal and State Governments proceeding at once to engage in normal improvement activities and to develop new building and construction projects. The Secretary commented upon what he characterized as a hysteria in connection with the problems of reconstruction, suggesting that "if we can take a peace-time organization and transform it almost over night into a great military machine, we can by the exercise of the same intelligence and the same energy take a military organization and transform it into a peace-time machine." Differences in phases of reconstruction questions as applicable to conditions in Great Britain and the United States were noted, it being mentioned that the former country is confronted by the necessity of obtaining raw material for her factories, while this question is not important with us since we obtain in this country nearly all the raw material that we use. Furthermore, it was pointed out, Great Britain has been troubled about the reconstruction and maintenance of her foreign trade, while this question does not enter so

much into our own problem. "Our own industries can be maintained on an active basis without reaching anywhere near as large a proportion of exportation as is necessary for Great Britain." The matter of transportation has largely been solved by the construction of a merchant marine. Setting aside these features of the reconstruction problem, the Secretary proceeded to discuss the one great phase that vitally concerns industry, both employers and wage earners—that of demobilization and provision for employment of those released from the military and industrial forces and the effect of changed conditions upon wages. The Secretary's address is quoted in full from this point:

Our reports from our community boards indicate an aggregate unemployment at the present time of 350,000 at the places from which we are getting reports. That represents about one-half of the industrial sections of the country, so that we may estimate the total amount of unemployment at the present time as 700,000. That, in itself, based upon our experiences of the past, is not an alarming amount. The cause for alarm, if any there be, is the fact that the number is continually increasing, because the men who are engaged in industry find themselves in an uncertain situation. They look upon the prices of material and the rates of wages as being abnormal, but these have been increased because of the war necessities, and that there is a likelihood of the cost of material and the rates of wages coming down; and any man engaged in manufacture who pays a common price to-day for the material used in his shop, whose competitor is in position to purchase the same kind of material to-morrow at 15, 20, or 50 per cent less than he purchases it to-day, would be at a disadvantage when he comes to market his product.

So there is a disposition to hold off on the part of the employers in the hope of prices coming down. There is a possibility of prices coming down without there being an effect upon the wage rates. During the war period it was necessary to stimulate industry to its greatest extent, and prices were fixed for the products of the factory that would enable that class of factory that could not normally operate at all to come in and add to the total product. That meant tremendous profits for those who were situated at an advantage. These extra profits can be and should be eliminated, and eliminated as soon as possible. There are difficulties in that direction, because the manufacturer realizes that if he undertakes to cut prices and his neighbor does likewise, there is a possibility of the whole structure tumbling and the prices going down below even a normal profit, and so he is cautious about quoting prices at a lower rate and he does not care to enter into association with his neighbor and arrange for the cutting of prices because he may come in contact and conflict with our laws against that kind of conduct.

The Secretary of Commerce is endeavoring to work out that phase of the problem and be as helpful as he can in getting materials down to the lowest possible working basis without affecting the wage rate. There are important reasons why the wage rate should not be seriously affected at the present time. My judgment is that it can not be very generally reduced for a considerable period. My reason for that is the fact that during the period of the war our workers received more in actual, in real wages than they had ever received at any previous time. The cost of living had gone up, but the hourly wage rate of the workers had gone up almost in the same ratio. There were some instances where the hourly wage rate had gone up in excess of the increased cost of living; there were other instances where it did not go up quite as far as the cost of living, but the average was very close to the increase in the cost of living. However, the workers had steadier employment than they had been in

the habit of receiving; they worked overtime with time and a half for the extra time they worked, and they worked Sundays, in many instances. So the aggregate they received was greater than they had ever had before. Many of them have some of that in reserve now that can be utilized, and will be utilized, against any general attempt to reduce the wage rates, and because of the disposition on the part of labor, because of the fact that any period of depression that may confront us must of necessity be a short period, and that the reaction into post-war activities, giving us a period of industrial prosperity, must come in a very brief space of time, it would be folly to engage in the conflict necessary for the reduction in the wage rates when so little return is to be had for it.

Farmers are also in the same position as the wageworkers; they have received more in real wages, in real purchasing power in return for the crops than they have ever received before, and in many instances they were handicapped in their efforts to place any considerable portion of that increase back on the farm in the way of machinery and equipment. The wageworkers and the farmers then have reserves in hand that will be used in the maintenance of their families, and in additions to the equipment. That means that when we get into a real post-war period, in the aggregate a tremendous amount of additional purchase will be made.

But furthermore, before the coming of the European war we were receiving into our country yearly approximately 1,200,000 immigrants. Of that number, 400,000 have been returned, leaving us a net increase of 800,000, in the neighborhood of 600,000 of which were people of working age. We were adding, then, 600,000 annually to our working population. Now, that has not been the case for four years. The number coming into the country from the various sources has just about been equaled by the number going out and there has, therefore, been a net decrease of some 2,400,000 in what would otherwise have been the increase in our working population. We have taken several hundred thousand workers from other lines of industry and placed them in shipbuilding operations, and they are likely to remain there for some time. We found our shipbuilding industry with a few tens of thousands of workers engaged in it, while we now have in the neighborhood of 500,000 engaged in it. It will be a year yet before our military forces are completely demobilized. Probably in a year from now we may still have a million soldiers, taken from industrial life, who are not back in industrial pursuits, and I have no doubt that after that point there will be but a gradual demobilization.

We are, therefore, short in our normal supply of labor somewhere between three million and five million workers; so if we could engage in our pre-war activities on a post-war basis immediately, there would be a shortage of the supply of labor. But we are not in a position to do that, because of the fears to which I have already made reference; and that brings us to the consideration of how we are going to provide employment, how we are going to create a buffer reservoir that will take up the surplus labor during the period of demobilization and keep it busily employed—and there is great necessity for our people being busily employed during that period.

It is not very generally known, but it is nevertheless a fact, that the strikes that took place at Seattle, at Butte, at Paterson, at Lawrence, and at a number of other places recently were not industrial, economic disputes, in their origin, no matter how much economics may have been involved in the disputes. A deliberate attempt was made to create a social and political revolution that would establish the soviet form of government in the United States and put into effect the economic theories of the Bolshevik of Russia. It failed because for two years the Department of Labor and other agencies of the Government have been fighting that false philosophy—not by the utilization of force, but by appeal to the judgment, to the reason of our people.

Nearly two years ago, in the form of the Industrial Workers of the World, we found a very general propaganda taking place upon the basis that every man is entitled to the

full social value of what his labor produces. Now, that is a very pleasant theory; to my mind a very sound one. There is where the danger lies—in the solidity of the basis that he has laid for something false that is to follow. It is an axiomatic theory which, though purely socialistic in its origin, may also be accepted by any individualist anywhere. To my mind it is a truism that every man is entitled to the full social value of what his labor produces. The difficulty, however, is that human intelligence has not as yet developed a method by which we can determine what the social value of any one's labor is; and so, because of our inability to compute the value of labor, we have been going on determining the social values of labor on a competitive basis, multiplied to a greater or lesser extent by the organizations of capital on the one side and the organizations of labor on the other side. But not satisfied with that basis, they went further and said that all property is valuable only in so far as profits can be secured from the product. Now, that also is sound. Any economist can accept that as a sound theory. If there can be no returns from a property, then, of course, people do not want it; it is of no value. They laid that down as part of the basis for their philosophy, and then came the poison. They said: "The way to destroy the profits of the property is to strike upon the job, to lay down," to "soldier," as we say in the United States; to "put sand upon the bearings," to destroy the machinery, reduce the production in any way you can bring it about and get away with it, destroy production wherever you can, and when you have reduced the amount of production and increased the cost of production, you will have eliminated the profits from the property. Then no one will have any longer a desire to retain it and the workers can take the property over and operate it themselves, thereby securing the full social value of what their labor produces.

But they had failed to take into consideration the American mind; they had failed to take into consideration our public-school system; they had failed to realize the fact that the average American workingman has at least a smattering of knowledge of industrial history, and his memory has only to be refreshed by calling his attention to the fact that prior to the birth of the inventive genius of man, prior to the development of our modern industrial system, when everything was produced by hand, there was a very much smaller production per individual per day and per year than could possibly result from any system of sabotage they could employ; and yet in those days there was profit to the employers and value to the lands. What did result was a very much lower standard of living for the wageworkers; and if these people had succeeded in putting their social and economic theories into effect, if they did succeed in putting through a wide system of sabotage, then the only result would be to lower the standard of living of the wageworkers of the United States. Employers and employees have a mutual interest; not an identical interest, mark you, but a mutual interest in securing the largest amount of production from a given amount of labor, having due regard to the health, safety, opportunities for rest, recreation, and development of the workers; for if there is nothing produced, there will be nothing to divide; if there is a large amount produced, there will be a large amount to divide; and the interests of the employer and the employee only diverge when it comes to a division of that which has been mutually produced; and if they are wise in their generation, when that divergence takes place they will sit down around the council table and endeavor to work out the problem on as nearly a just basis as the circumstances surrounding the industry will permit.

We met their philosophy in that manner all over the United States, and when the attempt was made a month ago to start their soviet revolution, the fertility of the soil that they expected to use for the propagation of their theories had been destroyed. But if you have large volumes of unemployment for long periods of time, the situation will be entirely different. You can go to a workingman who is busy, who has the opportunity of working, and point out to him that the employer and employee have a

mutual interest in securing the largest possible production; but you can not go to the idle man—the man who is willing to work but has not the opportunity of doing so—and expect to convince him that the employer and employee have a mutual interest in large production, when he does not even have the opportunity of employment.

I do not believe that any country owes any man a living; but I do believe that every country owes every man an opportunity to earn a living.

Now, during the past two or three years our public improvements have lagged. Our Federal Government has not engaged in the usual public improvements; neither have the State governments nor the municipalities. There were two reasons for that: The shortage of workmen and the inability to properly finance, because of the control that the Federal Government had to have over finances in order to make sure that its own financial situation would be secure. Both of those conditions have changed, and there is now a surplus of labor, and the Federal Government has released control of the finances so that credits are now available. To me the one great method of forming a reservoir for buffer employment is to have the Federal Government engage in its normal improvement activities, and to have every State and municipal government do likewise.

I would not ask that work be undertaken solely for the purpose of providing work. To place men at work on any job where the results from it are not needed is just so much waste of time and energy and man power. But there is a tremendous amount of work, a tremendous amount of improvement that is needed, and so that the minds of our workers will not be fertile fields for the propagation of false philosophy it is our duty to see to it that these activities are now engaged in to the fullest extent.

It was with these thoughts in mind that we asked this conference to meet here to-day. We have visions of industrial activity in the near future. All of the wars that have been engaged in from the beginning of the development of the factory system until now have been followed by periods of industrial activity. That was true of the War of 1812; there were several years of industrial activity following that war, and then, after some four or five years, reaction came. There were two or three years of activity after our little War with Mexico, there were seven or eight years of activity after the Civil War, and there were four years of industrial activity all over Europe after the Franco-Prussian War, and we had a considerable period of industrial activity after our War with Spain.

Now, with the vast amount of destruction of life and of property that has taken place in this war, as I visualize the situation, once we can get back into a regular postwar swing there will be at least a decade of industrial activity, a period in which the false philosophies of Bolshevism will find no foothold, and where we can go on working out our social problems, our economic problems, and our industrial problems after careful consideration of each of them as they are presented, and thus move onward in an evolutionary way to that higher sphere that our country is destined to occupy.

Following Secretary Wilson, the Secretary of War and the Secretary of the Navy discussed Government contracts as affecting their respective departments and the difficulties confronting them in so adjusting these contracts as to cause a minimum of dislocation to industry.

It is not deemed advisable or necessary to report the conference in full. At the Tuesday morning session Mr. Roger W. Babson, representing the Department of Labor, in an address on what the departments of the Government are doing for business, presented seven propositions, the general adoption of which would materially

assist in restoring the country to a normal industrial basis. These seven points are as follows:

- (1) Begin at once construction of all public works possible, including public buildings—especially schoolhouses.
- (2) Get behind the "build-a-home" movement by asking for a quota for your community and then publishing each week in your daily papers how you are keeping up with that quota.
- (3) Get your State to build this summer its full quota of Federal roads on the 50-50 basis and appropriate a larger sum than ever before for State roads.
- (4) See that the traction properties of your State and city receive fair treatment, remembering that the transportation system of a city determines more than any other one thing its growth and prosperity.
- (5) Urge labor to give greater service for its wages, but remember that high wages increase the home market for goods so that the more money paid in wages the more goods will be purchased, and the greater will be the prosperity of your State and city.
- (6) Get your councils of defense and safety committees to advertise as much now to get people to buy as they advertised during the war to get people to economize.
- (7) Help Secretaries Wilson, Lane, and Redfield and the other Cabinet chiefs in their efforts to provide greater opportunities for both capital and labor.

The program of the conference included addresses by Secretary Lane, of the Department of the Interior; Walker D. Hines, Director General of Railroads; Eugene Meyer, jr., managing director of the War Finance Corporation; Elwood Mead, of the United States Reclamation Service; and John Hays Hammond.

The report of the committee on resolutions was submitted by the chairman, Governor Cox, of Ohio, and adopted by the conference. Somewhat abridged, this report is as follows:

As this conference was called for the purpose of facilitating the readjustment of the industrial affairs of the country, through the coordinated councils of national, State, and community units, your committee has attempted to make only such recommendations as bear directly upon the task in hand * * *.

We are living in the most thrilling time in all history, and our resolves are centered in the contribution of our children and our children's children of that measure of human contentment, justice, and opportunity which will record us as the worthy sons of our worthy sires. Confident that we must progress from the fundamental base of American ideals conceived and vitalized by the founders of the Republic, we pledge ourselves in firm and harmonious resolution to gain inspiration from the creed of pure Americanism rather than from the disordered doctrines that find expression elsewhere. If peoples from overseas desire to live with us and become a part of the Nation's life, they must accept, in the first instance, this condition, namely, that principles of government must change through the evolution and processes of calm, human intelligence, and that the mind of the majority, rather than the violence of a minority, must be the determining factor. We have been thrilled and reassured by the militant declaration made to this conference by the Secretary of Labor, Hon. William B. Wilson, that any alien who seeks to invoke force rather than reason against our form of government must and will be treated as an enemy to our institutions and sent out of the country.

It is our expressed belief that any doctrine which inveighs against both God and government is a poisonous germ in human thought and must be treated as a menace to the morality and the progress of the world. It has been insidiously planted in

some parts where the discontent growing out of unemployment brought fertile opportunity. Government, which derives its powers from the people, must keep vigilant watch in the maintenance of public confidence, and inasmuch as the need most pressing now is to provide the means of giving every man a chance to perform the function God intended, we, as the representatives of States and municipalities, enter most happily into the suggestion that we cooperate our energies with those of the National Government. * * *

We do not favor any fixing of costs at the present time, either by statute or administrative mandate, but if the Government, in fairness to all interests concerned, approves price schedules on materials, public opinion will accomplish the rest.

We are firmly of the belief that the National Government should create some organization to serve as a guide and aid not only in its purchases but to those made by private enterprises, as well. Prices must change. There may be economic justification for some schedules, but not many; and if the Government through the operation of a committee or a commission, such as we have suggested, will invite industry to go forward in the work before us, revealing facts and figures upon which honest calculation can be made, it can then in any given line announce to the public what prices it finds to be fair and equitable.

In road building, or in the construction of homes, it would be a perfectly simple matter to determine what prices ought to be paid. Following this, public work and private enterprise would in all probability assume its normal volume, because confidence would have been established.

There is a general feeling that freight rates on all road materials should be radically reduced. In fact, we are willing to express it as our judgment that it would be a sound public policy to make a further cut in the freight rates on all building materials. * * *

There seems to be a unanimity of sentiment with reference to making any readjustments in wage scales no part of present calculations. If that is to come at all, it should be in consequence of a reduced cost of living. * * *

The attention of the conference has been called to conditions existing in many parts of the country with reference to street railway companies. During the war increases in pay were granted to employees through the intervention of the Federal Government. * * * While the operating cost has vastly increased in many instances, the rates of fare have continued without change. * * * We disclaim any disposition to trespass on the rights of municipalities, but it is our earnest recommendation that the Federal Government continue its helpful offices with the view to averting serious consequences in the financial affairs of public utilities.

The bringing to an end of governmental contracts with private industry entailed tremendous labor, and * * * we urge the highest speed possible in formalizing these readjustments, in making prompt payment of every indebtedness certified to and in thus releasing capital for other uses. * * *

It is the sense of this meeting also that the Government take steps to announce its policy as soon as possible as to the disposal of the raw materials of industry now in its hands or under its control, so that the manufacturers may determine their policy under stable conditions. * * *

* * * We recommend that the Federal Government continue its survey of the natural resources of the country in order that the useless waste of fuel might be ended and human energy directed along the lines of more modern development. * * *

We would regard the discontinuance of Federal aid in the maintenance of public employment agencies as both untimely and harmful. * * * It is our earnest hope that the President, through the War Department or some other executive branch, can continue for at least several months the cooperation of Federal with State agencies, in order that this most necessary service can be given both to labor and capital.

It is further suggested that communities be enabled to profit from Federal experience in the matter of working out the housing question, because as bases of industrial activities are changed in this transitional period, situations, quite as acute as they were during the war, are highly probable in the future.

* * * It is our recommendation that at least some committee be formed at this meeting through which community thought can clear, in its natural direction, to the several branches of the National Government.

* * * An imperative sense of public duty prompts the most earnest request that the troops be returned to the local draft boards in their resident counties. * * * Reentrance upon private life would then come under the more favorable probabilities of early employment. In our judgment nothing is more vitally necessary than this.

We regard with especial favor the practice which has been adopted in many parts of the country in establishing living and suitable memorials to the heroic deeds of war. * * * We recommend it as a helpful public policy.

Regardless of certain disordered conditions recited by delegates to this conference, its outstanding feature, nevertheless, has been a militant note of confidence in our governmental and industrial stability. The world in part is to be rebuilt. The patriotism, resource, ingenuity, and unselfish spirit of our people saved it from destruction, and what these elements have accomplished in protection they will guarantee in preservation. We face the future firm in the belief that the Almighty intends all things well, and that there remains for us and the generations to come full compensation for the service given and the sacrifice made in support of the ideals of democracy.

The following resolution was added to the committee report by the conference:

We recommend to the States that they consider means of releasing natural resources from controllers who wilfully withhold such natural resources out of use for speculative profits or for visionary future development, thus contributing to unemployment.

RECONSTRUCTION OF THE MACHINERY OF GOVERNMENT, GREAT BRITAIN.

Reconstructive changes in the administration of Government machinery in Great Britain are pertinently dealt with in a recent report of the Machinery of Government Committee.¹ This committee, which was appointed by the old Reconstruction Committee in July, 1917, and confirmed in its establishment by the Ministry of Reconstruction, had the imposed task of inquiring into the duties of the various central government departments and of suggesting in what manner the exercise and distribution of departmental functions might be improved.

The committee very frankly comments upon the overlapping and confusion which exist in the present administrative functions of the Government departments—a condition due in some instances to the fact that the purposes for which many of the departments were called into being gradually changed as the war progressed,

¹ Great Britain. Ministry of Reconstruction. Report of the machinery of government committee. London, 1918. 80 pp. Cd 6230.

creating a discrepancy in principle between the later and earlier stages of the process. In other cases the rapidity with which some departments were created precluded a definite preliminary definition of their duties; in still others the methods of organization have been such that a high standard of efficiency could not be attained.

THE CABINET.

Before the departmental organizations are considered, either generally or specifically, reference is made to the functions and procedure of the cabinet, which to a large extent directs departmental activity. Among the main duties outlined, that of "the continuous coordination and delimitation of the activities of the several departments of state" is noteworthy.

For prompt, effective work the committee advocates a small cabinet—the number limited to 10, or, at most, 12 persons—which should meet frequently; should institute an intelligence service calculated to enable it to arrive at quick, accurate decisions; should personally consult all ministers, the work of whose departments will be affected by its decisions; and which should have a "systematic method of securing that its decisions are effectually carried out by the several departments concerned."

The deliberations of the committee upon questions of policy requiring special consideration by the cabinet have led it to the belief "that in the sphere of civil government the duty of investigation and thought, as preliminary to action, might with great advantage be more definitely recognized." To this end it advises that in each department provision should be made to secure specialized information before a change of policy is made. For the initiation and coordination of investigations of more than departmental scope a ministry of research should be organized, its head a cabinet member, and the establishment of a Government department for scientific and industrial research is cited as an example which might be followed in fields where thinking is required in aid of administration. The personnel to be employed upon such work should be selected with special care, and the officials with duties of administration should have more time to devote to this phase of their work. The committee expresses the opinion that a cabinet supplied with all the intimate information possible through such sources could more fully and effectively discharge the duties of administration.

DISTRIBUTION OF DEPARTMENTAL FUNCTIONS.

The allocation of functions among the several departments is another problem which, in addition to those of the constitution and procedure of the cabinet and the institution of means for research, must be solved in order to insure the smooth working of depart-

mental machinery. "The conclusion reached by the committee from its investigation is that the principle of distributing business among administrative departments according to the nature of the service to be rendered to the community as a whole will not only occasion the least amount of confusion and overlapping, but will serve to encourage the acquisition of information and to develop specialized capacity by those in the several departments. It insists, however, upon the necessity of cooperation between departments when dealing with business of interest to each.

DEPARTMENTAL ORGANIZATION.

In its suggestions as to the organization of the departments themselves the committee confines itself to a few fundamental proposals. Special importance should be attached to securing a proper consideration of proposals for expenditure, and intradepartmental meetings are urged for a discussion of the special business of various sections. Advisory committees attached to the ministries and representing interests, industries, professions, or any other classes affected, are favored so long as their functions are purely advisory and do not impair the field of responsibility of the ministers to Parliament.

The most revolutionary suggestion is doubtless that of the employment of women in the civil service and in practically all departments. Recalling the fact that by its terms of reference it was intrusted with suggesting changes which would effect improvements in the exercise and distribution of governmental functions, the committee expresses itself as strongly of the opinion that among the changes conducive to this end the extended employment of qualified women must be included. It declares that in the public interest it is no longer expedient to exclude women, as such, from positions usually entered through competitive tests, nor even from those filled by the Class I examination. The question as to whether women can perform the duties of positions entered through the Class I examination has been answered during the experience of the last four years. Women have performed these duties, and have performed them satisfactorily.

There are, moreover, positions for which properly qualified women are naturally more suitable than men, and to which, for this reason, only they should be assigned. Other positions for which either qualified men or qualified women are equally fitted should be filled strictly according to the eligibility test without regard to sex distinction. The committee furthermore believes that the absence of women from the administrative staffs of the departments, and still more from their intelligence branches, has been a distinct loss to the service and that it will be essential to include one or more qualified women in the separate branch of the treasury which the committee unanimously advises should be set up to specialize in "establish-

ment" work and to study all questions of staff, recruitment, classification, and other matters of routine business applicable to the various departments of state. This proposed branch would be in close and constant touch with officers in other departments whose duties include such supervision of their own "establishment" work as will secure more system and an increased efficiency. It would also collect information regarding methods employed in business circles outside and in foreign countries as well.

EMPLOYMENT.

In its special recommendations for the Ministry of Labor (which it suggests should be called the ministry of employment) the committee outlines a broad program in keeping with the nature of the duties which such a ministry should render to the community. The sphere of the Ministry of Labor "is not necessarily confined to employment in private enterprise, or to manual work, but has already been tentatively extended to employment under local authorities and Government departments, and to brain workers as well as to manual workers." An enumeration of its functions should include the following:

1. The ascertainment and regulation of the conditions of employment, especially as regards wages, conciliation and arbitration, hours of labor, sanitation and safety, and special provisions relating to young persons and women;
2. The cooperation of the State with employers' associations and trade-unions in their functions connected with the conditions of employment;
3. The administration of unemployment insurance, the employment exchanges, and the mercantile marine offices, so far as seamen's employment is concerned (the latter in concert with the Board of Trade);
4. The administration of the Trade Boards Acts, the Coal Mines (Minimum Wage) Act, and the minimum wage sections of the Corn Production Act, together with the supervision of the various boards set up under these acts;
5. The administration of any provision made by the State, either directly or through local authorities, for the unemployed;
6. Such of the functions of the national service department as may be continued, so far as they relate to civil employment;
7. Advising the appropriate authorities as to the prevention of unemployment by the postponement or forestalling of works and contracts.

If the above-mentioned functions are to be discharged efficiently the Ministry of Labor must, of necessity, maintain close relations with the other departments. Matters which are of interest to it and any other department should be dealt with through a regular system of consultation between them. "The consideration of means of preventing the occurrence of unemployment could probably be facilitated by the establishment of a standing joint committee consisting of representatives of (a) all the principal spending departments together with the Ministry of Finance; and (b) the principal local authorities; or possibly separate committees of these two kinds

in order to have regard to the state of the labor market with a view to postponing or forestalling public expenditure on works and services so as to keep the aggregate national demand for labor, including that of private enterprise, approximately uniform from year to year and from season to season."

The committee believes that the Ministry of Labor should be the central authority on information regarding wages and scales of salaries in all departments, and also of the local and yearly variations in the cost of living. It should, through its exchanges and inspection service, know the demand for certain classes of labor in particular localities and the opportunities for professional employment. Other Government departments should have easy access to this information and might find it expedient to consult the Ministry of Labor upon all matters relative to the "remuneration or conditions of service of particular classes of employees." This principle should apply not only to the industrial activities of the large departments but to the civil service generally and to cases—the adjustment of teachers' wages, for instance—where the Government acts only in an advisory capacity.

The employment of young persons and the curriculum and arrangements of continuation schools and technical education should still remain matters in which the Ministry of Labor should coordinate with the board of education, and all of its information concerning the effect of scientific management, welfare work, etc., should be available to the ministry having to do with production. For the adjustment of matters between the employers' associations or the trade-unions and the Ministry of Labor special arrangements should be made, including possibly advisory committees for separate industries or for industry as a whole.

AFTER-WAR ECONOMIC CONDITIONS IN FRANCE.

From reports received by this bureau it seems that prices of commodities in France are still on the increase, and many demands for increase of wages, based on the high cost of living, have been made recently. These questions have been the subject of much consideration by the Government and municipal authorities, and by organizations of employers and employees.

REMOVAL OF FOOD RESTRICTIONS.

A recent decree,¹ issued by the Minister of Agriculture and Food Distribution rescinds in part the regulations enacted concerning the manufacture and sale of certain articles of food. These measures

¹La République Française, Paris, Jan. 5, 1919.

are a step in the direction of prewar conditions, and extend as far as circumstances at this date seem to warrant. The decree may be amended, however, and maximum prices and other regulations restored, if the lifting of restrictions leads to abuses.

The law relative to profiteering and illegal speculation remains in force.

The following is the extent of the new regulations: Condensed milk and pastry—unrestricted manufacture, and maximum price removed; eggs and tapioca—maximum price removed; rice and domestic and imported peas—abrogation of maximum price and unrestricted right to sell; vegetable meal—free manufacture; imported beans—free commerce and removal of price restriction; domestic beans—restricted sale regulation and maximum price retained.

The regulation fixing the hours restaurants and hotels are permitted to remain open is repealed, those in the interior zone and those in the military zone being under the control of the corresponding departments of the Government. Regulations concerning the price of meals, and the restrictions on butter, milk, cream, and cheese are removed; but the sugar restriction remains, and a menu showing the price per portion of food served must be placed on each table.

Liberty to sell sandwiches is granted. The manufacture and sale of biscuits, dry pastry, and pies are unrestricted, except for the restriction concerning the use of eggs, butter, and bread flour. Restrictions as to confectionery, chocolate, etc., remain in force.

Since this decree modifying food restrictions became effective, it is reported¹ that the entire country is complaining of high prices and is demanding rigorous measures against the practices which render it difficult to provide for the army and which likewise have so increased the price of foodstuffs as to render the increases in wages insufficient to provide the necessities of life. The guardian of seals proposed a bill, and requested its immediate consideration, for the purpose of regulating sales which "yield scandalous fortunes and embarrass the country." This bill was intended to prevent illegal combination among merchants or producers in withholding goods for higher prices, or other fraudulent purposes which are designed to increase prices above the normal price determined by natural competition on a free market.

COOPERATIVE STORES AND RESTAURANTS,² AND COST OF LIVING.

When the cost of food rose to such an abnormal price that wage increases availed but little in relieving the conditions said to have been due to profiteers and an unequal distribution of food supplies,

¹La République Française, Paris, Feb. 6, 1919.

²Bulletin du Ministère du Travail, Paris, Jan.-Feb., 1913.

the undersecretary of state recommended that manufacturers provide funds for the establishment of cooperative restaurants. Many cooperative associations have been in existence since before the war. These were originally designed to furnish a regular distribution at moderate prices; and profits, as far as possible, were eliminated. At present these play an important part in the cost of living.

But it appears that the cost of living is constantly increasing. In a discussion of ways and means in the Municipal Council of Paris¹ it was declared that "energetic measures must be taken to combat the gravity of the situation produced by high prices."

Refrigerated meats were but little used before the war. Under the stress of war prices meats from Argentina and New Zealand are an item of considerable importation. Prices of this class of meat are far below that of domestic origin. A few comparisons are reproduced² showing prices of refrigerated meat as regulated by city ordinance and prices of domestic meat in a controlled shop, in the latter part of April, 1918.

PRICES IN PARIS OF CERTAIN GRADES OF MEAT, FOREIGN AND DOMESTIC, IN APRIL, 1918.

Kind of meat.	Price per pound.		Kind of meat.	Price per pound.	
	Refrigerated.	Domestic.		Refrigerated.	Domestic.
Beef:			Mutton:		
Tenderloin.....	\$0.49	\$0.79	Leg.....	\$0.32	\$0.61
Rumpsteak.....	.39	.67	Chops, best.....	.32	.70
Roast.....	.37	.56	Shoulder, best.....	.23	.53
Shoulder.....	.20	.37	Stewing, best.....	.13	.39

Notwithstanding the fact that wages of municipal employees have been increased several times, prices have advanced to such an extent that further increases have been demanded. Three classes of employees, who before the war were paid respectively 1,200 francs (\$231.60), 1,800 francs (\$347.40), and 1,981 francs (\$382.33), are now being paid 4,197 francs (\$810.02) and are demanding 5,289 francs (\$1,020.78). It is reported that since this demand was made the Government has opened 15 large sheds in different parts of the city for the sale of foodstuffs at cost.³ In these sheds various classes of meats were sold at greatly reduced figures.

¹ La République Française, Paris, Feb. 9, 1919.

² Bulletin de la Statistique Générale de la France, April, 1918, p. 219.

³ Washington (D. C.) Herald, Mar. 7, 1919.

INCREASED WAGES AND OTHER DEMANDS OF RAILWAY WORKERS.

On January 25, 1919,¹ the omnibus and tramway employees made certain demands on the operators. While the demands were being considered, the employees met and by a vote of 402 to 1 decided to stop all work at 12 o'clock midnight. The following morning service on tramways and omnibuses and on the Metropolitan and North-South Railways (subways) had entirely stopped.

The omnibus and tramway employees demanded a scheme of retirement equivalent to that provided for the municipal employees, a monthly bonus of 60 francs (\$11.58) for all drivers, and an increase of wages for shop and depot employees. The company offered 50 per cent increase of retirement pay, and an increase of wages equal to 2 per cent of its receipts.

The employees of the Metropolitan and North-South Railways demanded stability of employment, an 8-hour day, increase of 2 francs (38.6 cents) a day from January 1, an annual vacation of 21 days, retirement, after 20 years' service, at 2,000 francs (\$386) a year, pay for lost time equal to that paid by the city of Paris, bonus for high cost of living equal to 3 francs (57.9 cents) a day, calculated on days paid for and not days of work, and a monthly increase of wages from July 1 of 150 francs (\$28.95) for persons under 18 years of age instead of the 3 francs (57.9 cents) a day.

The company agreed to consider these demands; to grant, beginning with January 1, 1919, to each employee retiring after 10 years' service, 700 francs (\$135.10) additional during life; and that, when the company should be authorized to increase its rates, its income having fallen 3,000,000 francs (\$579,000) below expenses, it would place 10 per cent of the revenue from such increase to the credit of the retirement fund.

It is said that the strike was far from being supported by public sentiment, because the strikers seized the opportunity when the nation was just beginning to return to normal conditions.

The Minister of Public Works, by a decree,¹ requisitioned the affected transport service, both the material and personnel, including rolling stock, buildings, shops, works, and installations of all kinds, directors, engineers, employees in offices, laborers, male and female, and placed the operation and service under military control, and warned all persons that military penalties would be invoked for refusal to perform usual duties. At the same time the employees were notified that they were absent from military duty without authority, and were ordered to report for duty at once.

The employees voted to return, but without withdrawing any of their demands. Through negotiations carried on by the minister of

¹ *La République Française*, Paris, Jan. 26, 1919.

public works¹ an agreement was reached on the following basis: Monthly salaries of less than 150 francs (\$28.95) to be increased 55 francs (\$10.62) and others 50 francs (\$9.65); retirement pay of 730 francs (\$140.89); bonus of 300 or 350 francs (\$57.90 or \$67.55), according to service, upon separation from service; pay for night work increased 50 centimes (9.7 cents) an hour. A Government decree² was then issued permitting the companies to raise fares temporarily for the purpose of meeting the foregoing increases.

On February 15, 1919, the railway workers in the Paris district made the following demands:³ Initial yearly wages of 2,400 francs (\$463.20) plus bonuses; an eight-hour day and an English week (44 hours); and the nationalization of the system (Paris railways). At last reports these demands were still under consideration and meetings of representatives of employers and employees were being held.

INDUSTRIAL TRANSITION.

The Minister of Reconstruction, responding to interpellations made in the Chamber of Deputies on measures proposed to be taken by the State in order to assure an industrial transition from the war to a peace basis, said:³

On November 11, 1918, there were employed in establishments engaged in war manufactures 1,700,000 persons, of whom 420,000 were females. Of the total war workers, 1,300,000 have already been given employment in peace work. It is admitted that there are many unemployed, and, although less than in neighboring countries, it is not necessary for me to say that there is too much unemployment.

It is necessary first of all to decentralize the over-population of certain centers where the number of employees is too great for peace industries to assimilate.

Before the war there were 16,000 persons employed in the arsenals. At the time the armistice was signed 150,000 were so employed. There are still 60,000 persons at work in them.

An organization for the repair of cars (wagons) has been effected, and by the end of April 1,500 cars per month will have been repaired, and in June 2,500. In the meantime the State foundries have been utilized in making metal parts for cars, and 800 persons are thus employed. At various other points the building of wagons in series, the manufacture of telephone and telegraph materials, and machines for the making of cigarettes, have been begun. In this latter there is no intention of competing with private enterprises.

The Government has realized the necessity of international labor legislation, and has appointed an experienced delegate as a member of the commission. From this course, it is believed, excellent results will be obtained. This commission is composed on an equal basis of employers and employees.

There is much discussion relative to the 8-hour day. Much difficulty will be encountered in adjusting this matter. I believe I am the author of the formula, "Maximum pay for maximum production in the minimum time." But the fact of our low birth rate must not be lost sight of. We are handicapped by foreign competition, and a preliminary adaptation is necessary. Much material has been lost

¹La République Française, Paris, Feb. 7 1919.

²Idem, Feb. 17, 1919.

³Idem, Feb. 15, 1919.

and exhausted. So much so that the small factory is at the mercy of transportation service

There are divergences of interest; because of financial inflation commerce finds many advocates; industry, rendered timid by reason of the war, is compelled to compete not only in domestic but in the world markets. Everywhere high prices are encountered, and industry demands that while it is manufacturing goods the prices of materials shall not be lowered. In addition it fears foreign competition and the increasing dangers of State control (*Etatsisme*). Under these conditions the argument is advanced that there is but one course open: Absolute free trade.

I have been an advocate of that doctrine for a long time, but at present I believe that it is inadvisable, and that it would increase our difficulties and confusion. My task would be simplified if I were able to open the door to all importation. But we must provide for the change.

Difficulty will be found in securing a sufficient supply of coal for industrial purposes. Electric power is being given serious consideration, and within 5 years the domestic waterfalls should be utilized. This will effect an annual saving of eight to ten millions of tons of coal, and foreign purchases amounting to 500,000,000 francs (\$96,500,000).

It is estimated that the available water power in France¹ is practically 10,000,000 horsepower. About 700,000 of this is already utilized. In the various mountain systems are to be found numerous sources. Beside these, there are the great rivers waiting to be harnessed and to furnish an inexhaustible supply of power.

One electric society using the water of the Orlu extends its supply to seven departments, supplying power to tramways, light, and numerous factories. Other large projects are in construction or have been completed. "The question assumes as much importance in this day as the construction of railways did in the last century. It is to the development of its hydroelectric power that France should first dedicate itself."

RETURN OF RAILROADS TO PRIVATE OPERATION.²

From February 10, 1919, until the cessation of hostilities, the operation of all railroads, excepting those in reconstruction work rendered necessary by total or partial destruction, and those operated by the French railway or by the Allies, shall be returned to the administrations charged with their operation in time of peace, under the conditions, agreements, and regulations and rates now in force, but under the following conditions:

(a) The Government shall have the absolute priority of right for the moving of French and allied armies as may be directed by military authority.

(b) The various systems must conform to orders or general instructions regulating transportation, issued by the Minister of Public

¹ Les Repercussions Économiques de la guerre actuelle sur la France, par Georges Renard, p. 303.

² La République Française, Paris, Feb. 3, 1919.

Works and Transports, as proposed by the general director of military transportation.

Certain regulations for the movement of merchandise either by ordinary or fast freight form part of the decree. The operators may limit the number of shipments of perishable goods, and of slow freight up to 300 kilos (660 pounds), to be shipped from one or any of the stations on the line, whether by one consignor to more than one consignee, or by one consignor to one consignee, after such restrictions shall have been approved by the State commission of railroad control.

The date of the return of such lines as are engaged in reconstruction work or continued under military control shall be determined by the minister of public works and transports, after consultation with the administrations interested.

Until the cessation of hostilities a military commissioner shall be attached to the administration of each system, in order to maintain a strict cooperation in the transportation for the Army and repairs of ways being made by military units. This commissioner shall have the powers of a chief of corps as relates to employees of the system who are under military authority, and shall be aided, if it becomes necessary, by military commissioners appointed in the offices of the heads of districts (*arondissements*). These latter are charged particularly with the maintenance of order and policing in the stations, and the transmission of reports to military authority.

PROVISION FOR THE DISABLED, AND VOCATIONAL EDUCATION.

RECONSTRUCTION MEASURES FOR VOCATIONAL TRAINING OF WOMEN IN ENGLAND.

On December 11, 1918, a subcommittee of the women's advisory committee of the Ministry of Reconstruction presented an interim report dealing with the coordination of vocational training for women.¹ The presentation of an interim report is explained on the ground that the committee was "impressed with the exigencies of the present situation and the probable immediate need of industrial training for women." With a large number already thrown out of work, and with every probability that the number would increase during the coming months, there seemed a special need for "supplying them with hopeful occupation and permanently improving their position."

During the war the Ministry of Pensions had been given special statutory powers with regard to the training of disabled men and pensionable widows. It had undertaken the training of disabled men on a large scale and in close cooperation with the Ministry of Labor, but it had done very little in the way of training widows, and that little had been carried on single handed. It is estimated that 190,000 widows will be in receipt of pensions by June, 1919. Of these only 460 had, at the time of making this report, applied for training, and in only 214 cases had training been sanctioned. There seems no overstatement in the committee's conclusion: "We gather that the ministry is not at present desirous of embarking on large schemes of training for women."

The committee points out that there are at least seven different bodies which are or may be concerned with the training of women. The Ministry of Pensions has been specially empowered to deal with the training of widows. The Ministry of Munitions has provided training for woman munition workers in large numbers during the war, and in this it has been assisted by the education authorities. The Ministry of Labor has undertaken extensive work in connection with the training of disabled men, and the machinery provided for this might well be used if the training of women is undertaken on a large scale. The trade boards set up in different industries have important statutory powers as to training. In the constitutions of

¹ Great Britain. Ministry of Reconstruction. Women's Advisory Committee. Interim report of the subcommittee on the coordination of the vocational training of women. London, 1918.

the new industrial councils (the Whitley councils) the supervision of trade instruction is in most cases set out as one of the objects of the council. And, finally, the central committee on women's employment, which was formed at the beginning of the war to deal with unemployed women, and which as part of its work formulated plans for the industrial training of women, is likely to become active again if the present prospects of unemployment among women are realized. With all these different agencies potentially in the field there is much danger of overlapping and of waste of effort if the question of training women comes practically to the front.

The committee feel that the special object of industrial training, as distinguished from education in general, is to equip the individual with knowledge and skill which shall be of immediate practical advantage. To secure this end, it is necessary, first, that the national and local demand for trained persons for each occupation shall be ascertained, and, second, that the training shall be carried on in the closest possible cooperation with those actually engaged in the industry.

If the first condition is not fulfilled, a trade may be overstocked with trained persons, to the detriment of those trained, and with a possible lowering of wages. If the second condition is not fulfilled, the employers, on the one hand, may decline to employ the persons trained, and organized labor, on the other, may refuse to recognize their status.

The committee recommends, first, that cooperation between the board of education and the local authorities, associations of employers and employed, and the Ministry of Labor be regarded as the first step in any program of training for women. Second, the actual training, so far as it is undertaken by public bodies, should be the function of the local education authorities acting under the board of education. Third, in each industry central and local advisory trade committees should be formed, representing associations of employers and employed.

The duties of these bodies should be (1) to draw up appropriate trade curricula in consultation with representatives of the education authority; (2) to decide as to the proper rates of wages to be paid at the end of the industrial course, or, in the case of part-time instruction, during that course; (3) to advise from time to time as to suitable openings in their industry; (4) to draw up lists of persons from whom the local education authority might appoint the expert members of the managing or advisory committees for individual technical institutions; (5) to recommend technical instructors for appointment.

Such advisory trade committees, it is pointed out, have already been set up to deal with the training of men, and it should not be difficult either to set up similar bodies for trades where women are concerned, or to alter the personnel of the existing committees, so as to provide for the adequate representation of women's organizations. The Ministry of Labor should be specially charged with the

task of determining the demand, both national and local, for trained persons in any particular occupations. They have already undertaken such surveys with regard to openings for disabled men, and might easily increase their work to cover openings for women. The Ministry of Pensions and the central committee on women's employment should limit their work to recommending individuals suitable for training, and assisting them either by maintenance grants or by paying the training fees. Finally, the committee recommends that the money expended during the war by the Ministry of Munitions on training should be considered as educational endowment, and that the property and equipment should become the property of the appropriate local authority.

TRAINING FOR THE BRITISH MERCANTILE MARINE.¹

When it became apparent early in the fall of 1918 that there would be a shortage of men for the merchant marine, the Board of Trade in conference with the Ministry of Shipping decided to institute a system of training English lads for this service, and the necessary arrangements were completed at Gravesend for inaugurating the scheme.

In September a crew of 40 boys made a practical start by dismantling and refitting the training ship preparatory to beginning regular work. The instruction given includes training in knotting, splicing, boat handling, rowing, swimming, heaving the lead, knowledge of the compass, steering, signaling, cleaning brass and bright work, scrubbing, preparing and serving mess, and other practical duties.

In all of this training theory and practice are combined wherever possible. For instance, instruction in steering is begun in the school and completed on the Board of Trade launch furnished for the purpose. Fine ship models loaned to the school provide an excellent opportunity for familiarization with the parts and equipment of a ship. The training of trimmers is given at the local gas works where the students by handling coke and coal in top-heavy barrows learn how to handle barrows on shipboard. They are also taught to clean fires and to stoke furnaces, and some of them receive daily instruction on board the training launch in raising and keeping steam and banking fires.

Applicants must pass a satisfactory physical examination and furnish references from their schoolmaster or clergyman and employer, if possible. Strict discipline is practiced and politeness required. Attractive surroundings are provided in the way of an

¹ Summarized from Board of Trade Journal and Commercial Gazette, London, Jan. 9, 1919, pp. 30, 31.

assembly room for reading, writing, games, and concerts, and a religious service is held Sunday morning. Good wholesome food is supplied.

In the first three months of its existence the school prepared 126 sailors for work on a variety of vessels, and the results show that with proper facilities and efficient instructors, intensive training can adequately prepare boys for this service in from six to eight weeks.

AGRICULTURAL REEDUCATION IN FRANCE.¹

According to Maj. Chatin (Medical Corps) some interesting results as to the agricultural reeducation of the war disabled have been secured at the Lyons (France) reeducation center. Generally speaking, it is less difficult for one-armed men to do agricultural work than it is for those who have lost a leg, the Gillet aluminum working arm and the Jullien apparatus for holding tools making the work possible. It has been found that the "tool-holding apparatus with a revolving ring, fastened to the working arm by a shaft of sufficient length, with an antivibratory spring inserted, is most useful."

One of the best exercises for a man who has lost an arm is digging, whether it be with a spade or with a fork. For this purpose the apparatus with a "cardan" (an appliance permitting of a free oscillating movement) is better than the revolving ring.

Inquiries show that in spite of their severe handicap a majority of the men lacking a leg who formerly worked upon the land have returned to it. For these cases a wooden leg fitted with a broad crosspiece at the bottom to facilitate walking over rough ground is the most suitable. The difficulty encountered in plowing or walking over the plowed land may be overcome by using the Canadian plow having a seat. It is almost impossible, however, for a man who has lost his left leg or his right thigh to do work of this kind. Using the scythe also is extremely difficult for men wearing artificial limbs, notwithstanding the attempts to make the work easier through the adaptation of the long-handled double curved scythe or the left-handed scythe for men with the right leg amputated.

By means of the "Lumiere" pincers each of the agriculturalists reeducated at Lyons learns to saw, nail, plane, sharpen his saw, and perform other carpentering operations useful in repairing agricultural tools.

¹War Pensions Gazette (Great Britain), January, 1919, p. 260.

PRICES AND COST OF LIVING.

RETAIL PRICES OF FOOD IN THE UNITED STATES.

The price of food for the United States shows a decline of 7 per cent on February 15 as compared with January 15, 1919. Twenty-seven articles out of the 42 on which prices are given were cheaper in February than they were in January. The greatest decreases during the month were in fresh eggs, 33 per cent; storage eggs, 22 per cent and butter, 19 per cent. Rib roast, plate beef, bread, and corn flakes show no change in price. Eleven articles increased in price ranging from less than five-tenths of 1 per cent for sirloin steak to 5 per cent in the price of onions, cabbage, and coffee.

In February, 1919, the cost of all articles of food combined was 7 per cent higher than in February, 1918. The price per pound of round steak, rib roast, and plate beef increased 24 per cent each. Sirloin steak, chuck roast, and prunes increased 23 per cent each; rice increased 21 per cent; and coffee, 20 per cent. In this same period navy beans decreased 24 per cent, and strictly fresh eggs 17 per cent.

AVERAGE RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE FEB. 15, 1919,
COMPARED WITH FEB. 15, 1918, AND JAN. 1, 1919.

Article.	Unit.	Average retail price.			Per cent of increase (+) or decrease (-), Feb. 15, 1919, compared with—	
		Feb. 15, 1918.	Jan. 15, 1919.	Feb. 15, 1919.	Feb. 15, 1918.	Jan. 15, 1919.
Sirloin steak.....	Pound....	\$0.334	\$0.411	\$0.412	+23	(1)
Round steak.....	do.....	.314	.390	.388	+24	- 1
Rib roast.....	do.....	.263	.326	.326	+24	(2)
Chuck roast.....	do.....	.227	.280	.279	+23	(3)
Plate beef.....	do.....	.177	.219	.219	+24	(2)
Pork chops.....	do.....	.336	.406	.379	+13	- 7
Bacon, sliced.....	do.....	.484	.585	.553	+14	- 6
Ham, sliced.....	do.....	.438	.536	.518	+18	- 3
Lamb.....	do.....	.314	.361	.364	+15	+ 1
Hens.....	do.....	.362	.400	.396	+10	- 1
Salmon, canned.....	do.....	.291	.321	.317	+ 9	- 1
Milk, fresh, unskimmed, delivered.....	Quart.....	.134	.156	.155	+16	- 1
Milk, evaporated (unsweetened).....	15-16 ounce can.....		.163	.164		+ 1
Butter.....	Pound....	.579	.705	.572	- 1	-19
Oleomargarine.....	do.....		.396	.392		- 1
Nut margarine.....	do.....		.364	.359		- 1
Cheese.....	do.....	.349	.445	.409	+17	- 8
Lard.....	do.....	.330	.334	.321	- 3	- 5
Crisco.....	do.....		.335	.338		+ 1
Eggs, strictly fresh.....	Dozen.....	.611	.752	.506	-17	-33
Eggs, storage.....	do.....		.599	.468		-22
Bread.....	Pound ⁴.....	.087	.098	.098	+13	(2)
Flour, wheat.....	Pound.....	.066	.066	.067	+ 2	+ 2
Cornmeal.....	do.....	.070	.062	.060	-14	- 3
Corn flakes.....	8-ounce package.....		.141	.141		(2)
Cream of Wheat.....	28-ounce package.....		.259	.251		- 3

¹ Increase of less than five-tenths of 1 per cent.

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

³ No change in price.

⁴ Baked weight.

AVERAGE RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE FEB. 15, 1919,
COMPARED WITH FEB. 15, 1918, AND JAN. 15, 1919—Concluded.

Article	Unit.	Average retail price.			Per cent of increase (+) or decrease (-), Feb. 15, 1919, compared with—	
		Feb. 15, 1918.	Jan. 15, 1919.	Feb. 15, 1919.	Feb. 15, 1918	Jan. 15, 1919.
Rice.....	Pound.....	\$0.118	\$0.138	\$0.143	+21	+4
Beans, navy.....	do.....	.181	.149	.137	-24	-8
Potatoes.....	do.....	.082	.082	.031	-3	-3
Onions.....	do.....	.049	.041	.043	-13	+5
Cabbage.....	do.....	.....	.041	.043	.....	+5
Beans, baked.....	No. 2 can.....	.....	.191	.186	.....	-3
Corn, canned.....	do.....	.....	.200	.196	.....	-2
Peas, canned.....	do.....	.....	.193	.192	.....	-1
Tomatoes, canned.....	do.....	.....	.176	.170	.....	-4
Sugar, granulated.....	Pound.....	.106	.108	.107	+1	-1
Tea.....	do.....	.609	.602	.684	+12	-1
Coffee.....	do.....	.304	.350	.366	+20	+5
Prunes.....	do.....	.165	.198	.203	+23	+3
Raisins.....	do.....	.150	.161	.162	+8	+1
Bananas.....	Dozen.....	.....	.370	.359	.....	-6
Oranges.....	do.....	.....	.515	.468	.....	-9
All articles combined.....	.....	.....	.....	.....	+7	-7

For the six-year period, February, 1913, to February, 1919, the increase in the retail prices of all articles of food combined was 79 per cent.

Since 1913, 6 articles show an increase in price of 100 per cent or over: Bacon, 117 per cent; lard, 108 per cent; ham, 105 per cent; flour, 103 per cent; pork chops, 102 per cent; and cornmeal, 100 per cent. The 13 other articles for which prices have been secured since 1913 show increases ranging from 38 per cent for butter to 97 per cent each for plate beef and lamb.

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

Article.	Unit.	Average retail price, Feb. 15—							Per cent of increase (+) or decrease (-) Feb. 15 of each specified year compared with Feb. 15, 1913.						
		1913	1914	1915	1916	1917	1918	1919	1914	1915	1916	1917	1918	1919	
Sirloin steak.....	Pound.....	Cts. 24.0	Cts. 25.4	Cts. 24.8	Cts. 25.7	Cts. 28.7	Cts. 33.4	Cts. 41.2	+6	+3	+7	+20	+39	+72	
Round steak.....	do.....	20.6	22.8	22.3	22.8	26.0	31.4	38.8	+11	+8	+11	+26	+52	+88	
Rib roast.....	do.....	18.9	19.9	19.7	20.1	22.5	26.3	32.6	+5	+4	+6	+19	+39	+72	
Chuck roast.....	do.....	14.9	16.3	16.2	16.2	18.6	22.7	27.9	+9	+9	+9	+25	+52	+87	
Plate beef.....	do.....	11.1	12.4	12.3	12.2	14.1	17.7	21.9	+12	+11	+10	+27	+59	+97	
Pork chops.....	do.....	18.8	20.9	17.9	19.3	26.1	33.6	37.9	+11	-5	+3	+39	+79	+102	
Bacon, sliced.....	do.....	25.5	26.4	26.7	27.3	30.7	48.4	55.3	+4	+5	+7	+20	+90	+117	
Ham, sliced.....	do.....	25.3	26.5	25.9	29.7	31.8	43.8	51.8	+5	+2	+17	+26	+73	+105	
Lamb.....	do.....	18.5	18.9	18.8	21.2	25.9	31.4	36.4	+2	+2	+15	+40	+70	+97	
Hens.....	do.....	20.8	22.2	20.8	22.2	26.7	36.2	39.6	+7	(7)	+7	+28	+74	+90	
Salmon, canned.....	do.....	.....	.....	19.8	20.0	21.6	29.1	31.7	.....	.....	.....	.....	.....	.....
Milk, fresh, unskimmed, delivered.....	Quart.....	8.9	9.1	8.9	8.9	10.0	13.4	15.5	+2	(7)	(7)	+12	+51	+74	
Milk, evaporated (un- sweetened).....	Can.....	.....	.....	.....	.....	.....	.....	16.4	.....	.....	.....	.....	.....	.....

No change in price.

AVERAGE RETAIL PRICE AND PER CENT OF INCREASE OR DECREASE FEB. 15, OF EACH SPECIFIED YEAR COMPARED WITH FEB. 15, 1913—Concluded.

Article.	Unit.	Average retail price, Feb. 15—							Per cent of increase (+) or decrease (—) Feb. 15 of each specified year compared with Feb. 15, 1913.					
		1913	1914	1915	1916	1917	1918	1919	1914	1915	1916	1917	1918	1919
Butter.....	Pound	Cts. 41.4	Cts. 35.9	Cts. 37.8	Cts. 37.8	Cts. 46.9	Cts. 57.9	Cts. 57.2	-13	-9	-9	+13	+40	+38
Oleomargarine.....	do.							39.2						
Nut margarine.....	do.							35.9						
Cheese.....	do.			23.5	24.8	31.5	34.9	40.9						
Lard.....	do.	15.4	15.8	15.2	17.7	21.9	33.0	32.1	+3	-1	+15	+42	+114	+108
Crisco.....	do.							33.8						
Eggs, strictly fresh.....	Dozen	31.5	36.4	33.8	34.9	50.6	61.1	50.6	+16	+7	+11	+61	+94	+61
Eggs, storage.....	do.							46.8						
Bread.....	Pound ¹	5.7	6.2	7.1	7.0	8.0	9.5	9.8	+9	+25	+23	+40	+67	+72
Flour, wheat.....	Pound	3.3	3.2	4.5	4.1	5.6	6.6	6.7	-3	+36	+24	+70	+100	+103
Corn meal.....	do.	3.0	3.1	3.3	3.3	4.1	7.0	6.0	+3	+10	+10	+37	+133	+100
Corn flakes.....	8-ounce package.							14.1						
Cream of Wheat.....	28-ounce package.							25.1						
Rice.....	Pound			9.1	9.1	9.1	11.8	14.3						
Beans, navy.....	do.			7.6	9.2	14.9	18.1	13.7						
Potatoes.....	do.	1.6	1.9	1.5	2.5	5.1	3.2	3.1	+19	-6	+56	+219	+100	+94
Onions.....	do.			3.4	4.4	12.2	4.9	4.3						
Cabbage.....	do.							4.3						
Beans, baked.....	No. 2 can							18.6						
Corn, canned.....	do.							19.6						
Peas, canned.....	do.							19.2						
Tomatoes, canned.....	do.							17.0						
Sugar, granulated.....	Pound	5.5	5.1	6.4	6.8	8.1	10.6	10.7	-7	+16	+24	+47	+93	+95
Tea.....	do.			54.6	54.6	54.6	60.9	68.4						
Coffee.....	do.			29.9	29.9	29.9	30.4	36.6						
Prunes.....	do.			13.7	13.3	14.1	16.5	20.3						
Raisins.....	do.			12.5	12.6	14.1	15.0	16.2						
Bananas.....	Dozen							35.0						
Oranges.....	do.							46.8						
All articles combined.....									+4	+4	+10	+38	+65	+77

RELATIVE RETAIL PRICES OF FOOD ON JAN. 15, 1919, AND FEB. 15, 1913 TO 1919, AS COMPARED WITH AVERAGE PRICE FOR 1913.

Article.	Unit.	Jan. 15, 1919.	Feb. 15, 1919.	Feb. 15—					
				1913	1914	1915	1916	1917	1918
Sirloin steak.....	Pound	162	162	94	99	98	101	113	131
Round steak.....	do.	175	174	93	102	100	102	117	141
Rib roast.....	do.	165	165	95	101	100	102	114	133
Chuck roast.....	do.	175	174	93	102	99	118	116	142
Plate beef.....	do.	181	181	92	102	101	100	116	146
Pork chops.....	do.	193	180	90	100	85	92	125	169
Bacon.....	do.	217	205	95	98	99	101	114	179
Ham.....	do.	199	193	94	99	96	110	118	163
Lard.....	do.	211	203	98	99	97	112	138	209
Hens.....	do.	188	186	97	104	97	104	125	170
Eggs.....	Dozen	218	147	91	106	98	101	147	177
Butter.....	Pound	184	149	108	93	98	99	122	151
Milk.....	Quart	175	174	100	102	100	100	112	151
Bread.....	Pound ¹	172	172	100	110	126	124	142	166
Flour.....	Pound	200	203	100	99	138	125	171	200
Corn meal.....	do.	207	200	98	103	110	108	136	233
Potatoes.....	do.	188	182	90	108	84	141	290	188
Sugar.....	do.	196	195	100	94	118	125	148	193
All articles combined.....		185	172	97	101	101	106	133	161

¹ Baked weight.

The prices shown in the tables following are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR FEB. 15, 1913, 1914, 1917, 1918, 1919, AND JAN. 15, 1919, FOR 19 CITIES.

Article.	Unit.	Atlanta, Ga.								Baltimore, Md.						Birmingham, Ala.						Boston, Mass.					
		Feb. 15—				Jan. 15, 1919.	Feb. 15—				Jan. 15, 1919.	Feb. 15—				Jan. 15, 1919.	Feb. 15—				Jan. 15, 1919.	Feb. 15, 1919.					
		1913	1914	1917	1918		1913	1914	1917	1918		1913	1914	1917	1918		1913	1914	1917	1918			1913	1914	1917	1918	
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.			
Sirloin steak.....	Pound..	22.6	23.6	25.8	31.4	39.2	38.8	20.7	23.4	27.4	33.4	44.5	43.9	24.9	28.0	35.2	49.7	40.5	34.5	32.9	40.8	42.4	55.1	58.3			
Round steak.....	do.	20.5	21.1	21.8	28.3	36.9	36.2	19.0	22.2	26.0	32.9	43.6	43.2	20.1	23.0	25.4	31.6	37.7	37.2	32.4	34.1	38.5	43.0	55.3	55.5		
Rib roast.....	do.	17.0	18.6	20.0	23.4	30.9	30.8	17.3	18.0	21.8	25.5	35.6	34.6	19.3	21.0	22.4	27.9	32.6	32.4	23.4	24.0	27.8	30.3	38.6	39.3		
Chuck roast.....	do.	13.0	15.3	14.9	20.3	25.9	26.1	14.7	15.2	18.0	23.7	30.8	30.6	15.6	16.5	19.3	22.5	28.3	27.9	17.0	17.8	23.0	25.4	30.4	30.7		
Plate beef.....	do.	9.8	9.5	10.6	16.0	20.5	20.2	11.6	13.3	15.0	18.6	25.1	24.4	10.0	11.5	13.3	17.0	22.5	21.5	.....	.....	.....	.....	.....	.....
Pork chops.....	do.	19.5	22.1	26.3	32.7	39.4	35.4	17.3	18.8	25.2	34.4	41.0	39.2	19.4	21.9	26.3	33.9	40.2	34.3	20.6	22.6	27.8	34.5	41.0	38.3		
Bacon, sliced.....	do.	30.0	30.4	31.0	49.1	63.9	60.0	21.3	23.0	26.8	44.9	54.3	49.9	31.3	34.0	35.0	52.0	62.4	58.9	24.6	25.0	30.0	46.0	53.0	50.6		
Ham, sliced.....	do.	28.5	30.0	33.8	44.6	56.0	54.7	30.0	29.0	35.0	47.9	58.7	57.2	30.0	32.0	34.2	44.0	53.5	53.0	28.3	31.4	35.8	46.0	58.1	55.3		
Lamb.....	do.	20.0	19.8	27.3	32.1	35.6	41.0	18.0	18.0	27.0	33.2	38.5	38.2	18.8	22.0	26.0	35.0	38.0	37.5	21.8	21.7	29.1	33.3	40.2	40.2		
Hens.....	do.	20.0	20.8	23.3	34.3	39.6	37.1	19.8	22.8	28.0	40.3	42.0	43.9	19.3	20.3	22.0	30.0	36.9	35.8	22.8	24.4	29.7	38.0	43.3	41.1		
Salmon, canned.....	do.	.....	.....	16.4	22.8	28.5	28.0	.....	.....	17.3	26.1	28.9	29.2	.....	.....	21.3	26.7	31.8	31.2	.....	.....	20.6	30.8	32.3	32.2
Milk, fresh.....	Quart.	10.0	10.6	12.3	17.7	21.7	21.7	8.8	8.7	9.2	13.0	17.0	16.0	10.3	10.0	12.8	15.2	20.0	20.0	8.9	8.9	10.5	14.5	16.5	16.5		
Milk, evaporated ¹ (²)	do.	.....	.....	.....	.....	16.6	16.9	.....	.....	.....	16.7	16.6	.....	.....	.....	.....	15.1	17.1	.....	.....	.....	16.9	17.1	.....	.....
Butter.....	Pound..	41.7	38.6	46.0	58.7	74.8	60.0	42.3	37.7	49.3	60.4	77.4	61.3	44.0	40.0	50.0	59.0	77.2	59.9	38.9	36.7	45.4	56.0	71.1	56.7		
Oleomargarine.....	do.	.....	.....	.....	.....	41.5	40.7	.....	.....	.....	.....	38.6	36.6	.....	.....	.....	.....	42.0	40.5	.....	.....	.....	38.9	39.0	.....	
Nut margarine.....	do.	.....	.....	.....	.....	40.1	38.9	.....	.....	.....	.....	33.6	35.8	.....	.....	.....	.....	40.3	39.3	.....	.....	.....	35.6	35.6	.....	
Cheese.....	do.	.....	.....	31.0	35.7	47.3	39.7	.....	.....	32.5	35.7	47.3	43.0	.....	.....	35.0	36.3	47.8	40.8	.....	.....	29.4	33.6	39.3	41.1
Lard.....	do.	14.8	15.2	20.9	.....	34.9	33.8	13.5	14.5	21.0	32.6	33.0	30.5	15.4	16.3	21.1	32.1	33.1	32.1	15.3	15.6	22.3	33.5	33.3	32.3	
Crisco.....	do.	.....	.....	.....	.....	36.3	33.3	.....	.....	.....	.....	32.4	32.3	.....	.....	.....	.....	33.7	33.3	.....	.....	.....	33.6	33.3	.....	
Eggs, strictly fresh.....	Dozen..	28.0	28.6	47.6	47.7	70.2	44.2	27.1	35.2	49.7	65.5	73.8	52.8	28.0	30.5	51.0	52.2	74.3	43.0	37.5	45.3	60.3	74.8	90.2	62.1		
Eggs, storage.....	do.	25.0	.....	.....	40.0	59.3	.....	23.0	32.0	.....	49.0	60.7	43.0	25.0	27.5	45.0	.....	69.5	40.0	25.2	35.8	47.0	59.0	58.8	49.9
Bread.....	Pound ³	6.0	5.9	8.3	10.0	10.0	10.0	5.4	5.5	7.4	9.0	9.7	9.7	5.0	5.6	8.9	10.0	11.7	10.8	5.9	6.0	7.7	8.5	9.1	9.1		
Flour.....	do.	3.6	3.4	5.5	6.9	6.9	7.0	3.2	3.2	5.6	6.7	6.8	6.7	3.8	3.8	5.9	6.7	7.2	7.3	3.7	3.7	6.1	7.3	6.8	6.7		
Corn meal.....	do.	2.4	2.7	3.2	5.2	5.8	5.6	2.4	2.5	3.4	6.0	5.9	5.7	2.1	2.6	3.4	5.5	.....	5.0	3.5	3.6	4.7	7.9	6.8	6.6	
Corn flakes.....	do.	.....	.....	.....	.....	14.2	14.1	.....	.....	.....	.....	13.5	13.5	.....	.....	.....	.....	14.8	14.6	.....	.....	.....	13.8	13.8	.....	
Cream of Wheat.....	(⁴)	.....	.....	.....	.....	23.8	23.1	.....	.....	.....	.....	23.4	23.1	.....	.....	.....	.....	25.2	25.3	.....	.....	.....	24.2	24.3	.....	
Rice.....	Pound..	.....	.....	7.3	11.9	14.1	13.3	.....	.....	9.8	11.5	13.6	13.4	.....	.....	9.0	12.1	13.4	13.4	.....	.....	9.7	12.2	14.0	14.1
Beans, navy.....	do.	.....	.....	14.6	18.6	17.1	16.3	.....	.....	14.7	18.2	15.8	14.5	.....	.....	16.5	18.8	17.4	15.8	.....	.....	15.2	18.6	15.4	13.5
Potatoes.....	do.	2.0	2.2	5.6	4.0	4.2	4.2	1.7	1.8	5.3	3.6	3.4	3.3	1.9	2.3	5.8	3.9	4.3	3.9	1.7	2.1	5.3	3.8	3.3	2.9		
Onions.....	do.	.....	.....	11.4	5.8	5.6	5.2	.....	.....	12.5	4.9	3.8	4.2	.....	.....	13.0	5.8	4.6	4.8	.....	.....	12.0	5.4	3.8	3.9
Cabbage.....	do.	.....	.....	.....	.....	4.9	5.5	.....	.....	.....	.....	4.1	4.4	.....	.....	.....	.....	4.7	5.2	.....	.....	.....	4.1	4.3	
Beans, baked.....	(⁶)	.....	.....	.....	.....	19.3	19.3	.....	.....	.....	.....	17.3	17.0	.....	.....	.....	.....	20.5	20.3	.....	.....	.....	20.1	20.3	.....	
Corn, canned.....	(⁶)	.....	.....	.....	.....	21.7	21.3	.....	.....	.....	.....	20.4	20.0	.....	.....	.....	.....	20.6	20.0	.....	.....	.....	21.2	21.2	.....	
Peas, canned.....	(⁶)	.....	.....	.....	.....	22.3	20.9	.....	.....	.....	.....	18.7	18.2	.....	.....	.....	.....	20.6	20.8	.....	.....	.....	21.1	21.3	.....	
Tomatoes, canned.....	(⁶)	.....	.....	.....	.....	16.0	14.6	.....	.....	.....	.....	16.2	16.0	.....	.....	.....	.....	16.6	15.7	.....	.....	.....	20.3	20.2	.....	
Sugar, granulated.....	Pound..	6.0	5.3	8.1	10.1	11.1	11.2	5.0	4.7	7.5	9.0	10.4	10.3	5.3	5.2	8.6	9.4	10.9	11.0	5.4	5.1	7.9	9.8	10.7	10.6		
Tea.....	do.	.....	.....	64.0	84.7	89.9	88.3	.....	.....	55.0	64.4	73.2	74.7	.....	.....	70.0	76.2	83.7	82.9	.....	.....	60.0	63.1	66.0	66.6
Coffee.....	do.	.....	.....	28.8	27.8	34.0	33.4	.....	.....	23.5	28.2	33.8	34.4	.....	.....	31.0	32.0	35.8	39.1	.....	.....	34.6	34.1	38.9	41.1
Prunes.....	do.	.....	.....	14.4	17.0	18.5	20.5	.....	.....	12.7	16.6	19.4	20.1	.....	.....	14.0	16.1	18.4	20.5	.....	.....	14.7	17.0	20.5	20.5
Raisins.....	do.	.....	.....	14.8	15.7	18.2	18.2	.....	.....	13.0	15.1	17.8	16.0	.....	.....	14.9	15.8	18.2	16.9	.....	.....	14.2	15.0	15.9	15.9
Bananas.....	Dozen..	27.7	29.8	30.0	29.5	39.1	39.2	33.8	41.3		
FRASER.....	do.	39.3	41.3	46.2	46.3	44.8	44.5	52.6	45.8		

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Article	Unit.	Buffalo, N. Y.					Chicago, Ill.					Cleveland, Ohio.					Denver, Colo.								
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.				
Sirloin steak.....	Lb.	20.3	21.5	26.3	32.1	39.1	39.3	20.9	24.1	27.3	30.4	37.5	37.9	22.3	24.9	28.2	31.6	37.8	38.1	22.5	22.9	23.5	30.3	36.9	36.5
Round steak.....	do.	18.3	19.2	23.5	29.9	36.8	36.5	18.6	21.1	23.6	27.2	34.0	34.4	18.8	22.3	25.2	29.9	35.5	34.5	18.4	20.7	21.3	28.2	34.0	34.4
Rib roast.....	do.	17.0	16.8	20.0	25.3	32.1	31.6	18.1	19.3	22.8	25.1	31.1	32.0	18.0	20.0	22.3	25.2	29.6	29.8	15.9	17.1	19.1	23.6	28.6	28.5
Chuck roast.....	do.	14.7	15.5	17.8	23.0	28.6	27.5	13.9	15.6	17.6	21.4	27.5	27.8	14.7	17.0	19.7	23.6	27.6	27.9	14.5	15.8	16.4	20.9	25.2	25.7
Plate beef.....	do.	10.7	11.8	14.8	17.9	23.1	21.5	11.0	11.8	13.7	16.6	20.7	20.7	10.6	12.3	14.2	17.7	20.7	21.0	9.1	10.0	10.5	15.1	19.1	18.6
Pork chops.....	do.	19.3	20.5	28.8	32.1	41.4	37.7	16.3	18.7	25.0	30.1	35.2	33.3	18.3	21.4	28.5	32.6	39.5	37.9	16.5	18.6	23.6	32.5	40.0	35.4
Bacon, sliced.....	do.	20.3	20.7	26.0	43.8	52.9	48.6	29.0	30.3	33.6	49.9	61.6	57.1	24.3	27.6	31.9	47.7	58.7	55.8	26.3	27.0	31.7	48.3	51.3	59.1
Ham, sliced.....	do.	24.0	25.0	34.4	44.8	53.1	50.2	29.5	31.0	35.4	44.8	55.3	52.1	32.0	33.5	36.5	45.5	57.6	56.1	27.0	29.2	33.3	47.5	59.3	57.8
Lamb.....	do.	17.5	16.4	24.0	29.4	32.9	32.4	19.1	19.7	25.2	30.6	34.2	36.3	18.7	18.7	28.6	31.1	33.6	35.8	15.5	15.4	21.8	29.2	30.4	30.2
Hens, canned.....	do.	20.0	22.4	27.5	36.0	41.5	40.5	19.4	19.4	26.4	35.2	33.5	35.9	20.6	22.6	29.9	37.3	39.1	40.6	20.0	20.1	22.5	33.8	35.8	34.6
Salmon, canned.....	do.			18.7	28.6	28.9	28.8			24.3	30.3	31.6	31.6			19.7	28.1	30.6	30.4			19.4	27.9	32.5	32.0
Milk, fresh.....	Qt.	8.0	8.0	10.0	14.0	16.0	15.0	8.0	8.0	9.0	11.9	14.0	14.0	8.8	8.0	10.0	13.0	15.0	14.0	8.4	8.4	8.3	11.5	12.6	12.3
Milk, evaporated ¹	(2)					16.8	16.7					16.0	16.2					16.6	16.6					17.3	17.0
Butter.....	Lb.	41.2	33.9	45.7	58.5	75.5	55.5	39.9	32.9	46.6	54.7	71.3	53.5	43.6	36.2	51.8	57.8	76.0	57.3	40.0	34.3	38.8	56.0	73.3	50.8
Oleomargarine.....	do.					39.0	39.2					37.4	36.6					39.7	39.2					39.2	38.5
Nut margarine.....	do.					33.7	33.6					34.6	33.7					35.2	35.0					35.9	35.5
Cheese.....	do.					30.0	34.2	39.8			32.9	37.7	43.9	38.9			31.3	34.2	42.6	42.4			32.5	36.1	43.1
Lard.....	do.	13.9	14.2	20.0	31.8	31.5	29.7	14.7	15.0	20.6	31.7	41.9	30.4	15.8	16.4	22.7	32.2	32.7	32.4	16.3	16.3	22.1	34.1	34.2	33.6
Crisco.....	do.					31.6	31.0					33.1	32.8					32.7	32.7					32.9	32.1
Eggs, strictly fresh	Doz.	31.0	35.6	55.0	69.0	51.8	27.3	32.9	50.3	59.3	69.5	46.1	31.8	36.2	58.1	70.2	77.9	53.3	29.0	33.6	43.8	60.0	74.8	47.7	
Eggs, storage.....	do.	22.2	30.5	46.7	57.3	64.8	37.0	22.6	44.0	53.0	56.4	38.7				59.3	60.2	45.0				48.3	58.8		
Bread.....	Lb. ³	5.6	5.2	8.2	8.7	9.7	9.4	6.1	6.1	8.2	9.6	10.2	10.2	5.5	5.6	7.9	8.8	10.0	9.6	5.3	5.4	8.0	10.0	11.9	11.8
Flour.....	Lb.	2.9	3.0	5.3	6.3	6.2	6.2	2.8	2.9	5.1	6.3	6.1	6.2	3.2	3.2	6.1	6.8	6.7	6.7	2.7	2.5	4.6	5.4	6.0	5.9
Corn meal.....	do.	2.5	2.6	3.9	7.5	5.8	5.4	2.9	2.9	4.1	6.9	5.8	5.6	2.8	2.9	4.1	6.9	6.2	6.0	2.5	2.5	3.2	5.6	5.6	5.6
Corn flakes.....	(4)					13.2	13.4					12.7	12.6					13.9	14.2					14.8	14.6
Cream of Wheat.....	(5)					24.5	24.4					24.2	24.0					24.7	24.5					25.2	25.3
Rice.....	Lb.			9.3	12.1	13.7	13.3			9.4	12.1	13.7	13.3			9.2	12.1	14.4	13.8			9.2	11.6	14.2	14.3
Beans, navy.....	do.			14.2	18.6	13.8	12.2			15.3	18.5	14.1	12.8			15.2	17.7	13.9	11.7			13.8	17.4	14.7	13.9
Potatoes.....	do.	1.4	1.7	5.3	3.1	2.7	2.6	1.2	1.7	5.0	2.9	2.7	2.4	1.4	1.9	5.5	3.1	3.1	3.0	1.1	1.5		5.2	2.7	2.4
Onions.....	do.			12.9	5.3	3.6	3.9			12.9	4.6	3.5	3.5			13.8	4.8	3.4	3.8			10.6	4.4	4.1	4.2
Cabbage.....	(6)					3.0	3.2					3.7	4.7					3.6	4.1					3.7	3.8
Beans, baked.....	(6)					16.7	15.7					17.3	17.5					18.2	17.0					20.1	18.8
Corn, canned.....	(6)					20.5	20.1					18.0	17.5					20.5	20.3					18.7	18.6
Peas, canned.....	(6)					18.3	17.9					17.0	16.9					19.4	19.5					19.5	19.1
Tomatoes, canned	(6)					17.9	17.3					17.0	16.1					17.7	17.4					15.7	15.3
Sugar, granulated.	Lb.	5.3	5.0	7.8	9.7	10.7	10.6	5.0	5.0	7.4	8.7	10.4	10.2	5.5	5.2	8.1	9.4	10.9	10.7	5.4	5.0	7.9	9.0	11.6	11.4
Tea.....	do.			47.5	56.7	63.9	63.3			55.0	59.1	64.0	62.6			47.5	58.0	64.8	68.1			48.8	57.5	65.6	67.2
Coffee.....	do.			28.5	30.6	34.4	35.6			30.0	28.2	32.7	33.4			28.8	29.1	34.8	35.9			28.8	30.0	35.8	38.0
Prunes.....	do.			13.2	17.2	20.7	20.9			14.0	16.5	20.0	21.2			14.0	17.2	20.2	20.1			13.8	17.1	20.5	20.0
Raisins.....	do.			12.2	14.1	14.7	14.6			15.0	15.1	15.9	15.9			13.9	14.6	15.7	14.7			13.1	15.3	16.8	16.6
Bananas.....	Doz.					40.0	38.8					35.5	34.1					41.4	40.8					43.2	41.0
Oranges.....	do.					56.2	52.4					49.3	41.9					58.7	46.3					55.4	45.2

¹ Unswetened.

² 15-16 ounce can.

³ Baked weight.

⁴ 6-ounce package.

⁵ 28-ounce package.

⁶ No. 2 can.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR FEB. 15, 1913, 1914, 1917, 1918, 1919, AND JAN. 15, 1919, FOR 19 CITIES—Concluded.

Article.	Unit.	San Francisco, Calif.						Seattle, Wash.						Washington, D. C.					
		Feb. 15—				Jan. 15, 1919.	Feb. 15, 1919.	Feb. 15—				Jan. 15, 1919.	Feb. 15, 1919.	Feb. 15—				Jan. 15, 1919.	Feb. 15, 1919.
		1913	1914	1917	1918			1913	1914	1917	1918			1913	1914	1917	1918		
Sirloin steak.....	Pound.	Cts. 20.3	Cts. 21.0	Cts. 23.4	Cts. 26.4	Cts. 32.8	Cts. 33.3	Cts. 22.0	Cts. 24.0	Cts. 23.8	Cts. 30.0	Cts. 36.2	Cts. 36.9	Cts. 25.9	Cts. 27.5	Cts. 30.0	Cts. 38.0	Cts. 51.4	Cts. 50.0
Round steak.....	do.	19.0	19.7	22.7	25.8	32.0	32.4	20.0	20.9	22.4	28.5	35.4	35.6	21.8	23.4	28.2	36.0	48.4	47.5
Rib roast.....	do.	20.7	22.0	22.8	24.9	30.9	31.2	18.4	19.4	21.0	25.1	31.3	31.3	20.0	21.3	24.8	29.6	40.9	40.9
Chuck roast.....	do.	14.6	15.5	16.2	19.1	23.8	24.0	15.0	15.1	16.6	21.4	26.9	26.8	15.6	17.0	20.4	25.7	34.9	33.9
Plate beef.....	do.	12.5	15.0	15.6	18.2	22.2	22.4	11.4	12.8	12.5	18.3	21.8	21.8	10.7	12.4	16.2	20.2	23.8	23.3
Pork chops.....	do.	23.0	25.0	28.0	35.1	43.4	43.8	23.4	24.0	26.8	38.8	47.0	45.2	19.3	21.0	28.6	37.8	45.9	44.4
Bacon, sliced.....	do.	32.8	33.9	37.5	53.8	62.2	60.0	30.0	32.1	33.4	53.5	62.6	60.8	23.3	24.3	29.2	48.5	56.3	52.6
Ham, sliced.....	do.	30.0	32.0	40.0	49.4	58.6	58.3	29.2	30.0	33.0	46.9	57.5	56.1	28.2	28.6	32.5	47.3	58.3	58.1
Lamb.....	do.	17.2	18.3	24.3	29.3	34.7	34.7	18.3	18.7	25.4	32.7	36.2	36.6	21.0	20.7	29.6	34.6	44.5	42.5
Hens.....	do.	23.8	24.8	28.7	41.8	48.9	48.6	24.3	24.7	27.0	35.9	44.1	43.2	21.3	22.6	29.0	39.1	45.4	45.3
Salmon, canned.....	do.	.....	.....	19.6	25.4	28.0	27.9	.....	.....	21.1	28.3	30.9	31.2	.....	.....	18.0	28.7	34.2	34.4
Milk, fresh.....	Quart.	10.0	10.0	10.0	12.1	14.0	14.0	9.1	9.5	10.0	12.6	15.7	15.7	9.0	9.0	10.0	14.0	17.0	17.0
Milk, evaporated ¹	(2)	.....	.....	.....	16.4	16.0	.....	.....	.....	.....	.....	16.0	15.3	.....	.....	.....	.....	16.7	16.9
Butter.....	Pound.	40.7	33.6	43.3	58.9	72.3	62.7	42.6	39.7	46.6	58.8	73.3	58.4	44.0	37.6	49.6	60.5	78.4	60.2
Oleomargarine.....	do.	.....	.....	.....	39.0	36.8	.....	.....	.....	.....	.....	42.3	42.0	.....	.....	.....	.....	38.2	37.4
Nut margarine.....	do.	.....	.....	.....	36.3	36.9	.....	.....	.....	.....	.....	40.5	39.6	.....	.....	.....	.....	35.7	35.8
Cheese.....	do.	.....	.....	26.7	32.9	41.9	37.4	.....	.....	27.8	30.8	43.2	42.2	.....	.....	31.6	35.7	46.2	43.7
Lard.....	do.	17.6	17.4	22.8	33.4	33.7	33.3	17.9	16.2	21.9	32.7	33.8	34.2	14.4	14.8	21.4	33.6	33.9	31.8
Crisco.....	do.	.....	.....	.....	34.8	34.6	.....	.....	.....	.....	.....	35.3	35.7	.....	.....	.....	.....	33.8	33.3
Eggs, strictly fresh.....	Dozen.	25.0	28.9	39.0	48.9	65.7	44.4	30.0	36.6	40.7	52.8	73.5	53.5	26.3	35.6	53.8	67.1	78.3	53.9
Eggs, storage.....	do.	.....	.....	.....	38.3	57.0	.....	22.5	.....	.....	47.5	43.0	20.5	.....	.....	.....	61.7	63.0	.....
Bread.....	Pound.	5.7	5.9	7.1	10.0	10.0	10.0	5.4	5.7	9.0	9.9	10.3	10.3	5.5	5.6	8.0	8.5	10.0	10.0
Flour.....	Pound.	3.3	3.4	5.1	6.2	7.0	7.2	3.0	2.9	4.7	5.8	6.5	6.5	3.7	3.7	5.6	6.9	6.2	6.7
Corn meal.....	do.	3.4	3.4	4.4	6.9	7.3	7.0	3.1	3.3	4.0	7.2	7.2	7.1	2.5	2.5	3.2	6.3	5.5	5.2
Corn flakes.....	(1)	.....	.....	.....	14.2	14.0	.....	.....	.....	.....	.....	14.7	14.8	.....	.....	.....	.....	14.2	14.1
Cream of Wheat.....	(2)	.....	.....	.....	24.8	24.7	.....	.....	.....	.....	.....	27.6	27.3	.....	.....	.....	.....	24.2	24.4
Rice.....	Pound.	.....	.....	8.8	11.9	13.6	13.9	.....	.....	8.7	11.7	14.5	14.2	.....	.....	9.6	12.7	14.2	14.0
Beans, navy.....	do.	.....	.....	14.6	15.8	13.0	12.5	.....	.....	14.4	16.8	14.8	14.0	.....	.....	15.2	19.6	14.5	13.7
Potatoes.....	do.	1.5	1.8	4.3	2.3	3.0	2.9	.9	1.3	3.8	1.7	2.3	2.2	1.5	1.9	5.3	3.6	3.1	3.0
Onions.....	do.	.....	.....	12.3	3.4	2.7	3.1	.....	.....	9.7	4.2	4.0	3.9	.....	.....	13.6	5.0	3.3	3.8
Cabbage.....	do.	.....	.....	.....	5.0	1.7	.....	.....	.....	.....	.....	4.8	5.3	.....	.....	.....	.....	3.6	4.1
Beans, baked.....	(8)	.....	.....	.....	21.2	20.4	.....	.....	.....	.....	.....	23.3	22.8	.....	.....	.....	.....	18.6	17.3
Corn, canned.....	(9)	.....	.....	.....	19.0	19.7	.....	.....	.....	.....	.....	20.4	21.1	.....	.....	.....	.....	20.7	20.6
Peas, canned.....	(6)	.....	.....	.....	18.6	18.6	.....	.....	.....	.....	.....	19.7	19.9	.....	.....	.....	.....	20.7	20.3
Tomatoes, canned.....	(6)	.....	.....	.....	15.9	15.6	.....	.....	.....	.....	.....	19.7	20.2	.....	.....	.....	.....	17.4	18.4
Sugar, granulated.....	Pound.	5.3	5.2	7.5	8.7	10.6	10.6	6.1	5.7	7.9	9.1	10.4	10.9	5.2	4.8	8.6	8.9	10.4	10.2

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Tea.....	do.....	51.7	54.3	57.2	56.9	50.0	56.4	62.7	62.6	53.2	63.7	75.9	77.1
Coffee.....	do.....	31.7	30.1	34.1	36.4	32.6	31.2	35.4	36.4	29.4	29.3	33.5	34.4
Prunes.....	do.....	12.4	14.2	17.5	18.4	13.0	14.6	18.9	19.3	15.0	17.5	22.4	22.2
Raisins.....	do.....	13.5	12.8	14.5	14.7	13.1	14.7	15.4	15.6	13.9	15.6	16.0	15.9
Bananas.....	Dozen.....			35.0	36.7			46.1	45.0			40.5	40.8
Oranges.....	do.....			49.0	50.9			59.5	52.8			48.8	48.8

¹ Unsweetened

² 15-16 ounce can.

³ Baked weight.

⁴ 8-ounce package.

⁵ 28-ounce package.

⁶ No. 2 can.

[14071]

RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 SELECTED CITIES ON JAN. 15 AND FEB. 15, 1919.

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.		Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.		Kansas City Mo.		
		Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	Jan. 1919	Feb. 1919	
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	52.1	51.4	38.2	36.0	38.5	37.7	35.2	35.5	37.8	37.8	39.6	42.8	58.3	59.5	36.3	37.9	36.5	37.0	42.2	41.1	37.8	37.3	37.0
Round steak	do	50.5	48.6	33.9	33.2	39.2	36.8	34.2	34.1	36.0	36.3	38.2	41.8	50.4	50.0	35.2	38.2	36.6	36.4	39.7	38.6	34.6	35.0	35.0
Rib roast	do	38.6	38.6	30.2	28.6	32.5	32.0	29.5	30.3	31.7	31.6	34.0	35.8	35.1	35.6	28.3	30.8	28.2	27.6	33.3	31.2	27.9	27.4	27.4
Chuck roast	do	33.0	32.5	25.1	24.1	27.3	26.4	24.8	24.6	27.5	27.9	29.0	32.4	28.4	29.5	26.3	27.9	25.6	26.2	28.7	27.8	24.0	24.5	24.5
Plate beef	do	21.4	22.2	18.0	16.9	22.5	21.4	21.9	22.7	21.5	22.3	25.0	26.8	.....	.....	24.6	24.8	21.2	20.6	21.1	20.9	19.8	20.4	20.4
Pork chops	do	40.9	37.1	42.0	36.2	47.1	40.6	35.5	35.1	38.1	33.8	43.0	38.5	38.8	35.3	41.7	37.4	37.9	37.1	41.6	38.6	36.5	33.6	33.6
Bacon, sliced	do	62.5	58.9	66.3	61.7	64.5	58.3	54.6	52.6	55.0	50.6	67.3	62.2	55.1	51.9	68.3	63.2	55.7	52.8	61.6	58.1	60.9	58.3	58.3
Ham, sliced	do	62.9	59.6	57.9	52.5	64.5	52.1	54.0	52.7	55.8	53.6	57.3	56.9	54.9	53.7	51.7	62.8	57.4	55.1	54.7	54.6	55.3	54.4	54.4
Lamb	do	38.5	37.4	35.5	32.1	41.1	40.0	32.8	34.0	35.0	30.7	40.0	43.6	36.0	36.2	38.3	38.8	37.5	45.0	35.8	35.4	32.5	33.6	33.6
Hens	do	42.8	41.1	39.3	38.4	46.3	47.1	39.5	41.9	37.0	36.4	33.6	33.3	44.3	44.2	35.0	38.5	33.3	34.1	44.1	39.1	33.8	34.4	34.4
Salmon, canned	do	37.2	37.1	38.9	40.5	31.4	30.5	28.5	29.2	28.9	30.0	32.1	31.6	31.0	31.3	31.2	31.3	27.1	26.4	30.5	30.8	32.7	32.7	32.7
Milk, fresh	Quart	16.0	16.0	15.5	15.5	20.0	21.0	14.0	14.0	15.0	15.0	19.0	19.0	16.0	16.0	19.8	19.7	14.0	13.7	18.0	18.0	16.0	16.0	16.0
Milk, evaporated ¹	Quart	16.4	16.6	17.5	17.1	17.3	17.3	15.6	15.5	15.7	15.9	16.5	16.3	15.6	15.6	17.3	16.5	16.8	16.6	15.5	16.7	17.2	17.6	17.6
Butter	Pound	69.7	57.0	70.7	53.5	73.4	58.5	74.0	54.9	76.4	55.5	69.3	56.2	70.7	55.5	74.2	56.4	74.8	53.3	77.5	62.3	73.2	55.6	55.6
Oleomargarine	do	39.2	38.2	.....	43.0	42.0	41.5	38.1	37.8	38.3	37.8	38.3	36.8	37.7	38.5	39.2	39.3	40.4	40.3	41.8	40.8	38.1	38.1	38.1
Nut margarine	do	36.1	35.9	.....	41.0	40.3	40.3	35.9	35.1	35.1	35.0	38.0	38.6	35.9	35.6	38.8	38.3	36.7	35.9	38.3	38.3	35.3	35.1	35.1
Cheese	do	42.5	42.5	46.4	43.6	46.3	42.4	45.5	38.9	44.0	41.3	45.9	42.2	40.0	40.9	45.0	37.5	46.4	40.6	46.9	42.5	46.3	40.7	40.7
Lard	do	32.4	32.0	33.9	32.1	35.9	33.9	29.6	28.6	31.3	29.6	35.5	34.5	31.9	30.8	34.0	30.9	32.4	31.7	35.5	33.3	35.2	34.5	34.5
Crisco	do	33.4	33.0	37.6	35.7	34.0	34.1	32.5	31.9	32.9	31.9	34.4	33.4	32.4	31.8	33.0	32.0	30.7	33.5	33.4	33.8	35.4	35.2	35.2
Eggs, strictly fresh	Dozen	89.9	87.7	90.0	49.5	76.5	55.3	68.4	44.0	67.2	42.4	75.3	40.6	62.6	50.0	60.8	.....	.....	56.3	79.1	49.1	71.2	45.4	45.4
Eggs, storage	do	61.9	50.5	66.7	.....	67.6	.....	55.0	.....	55.7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bread	Pound	10.0	10.0	10.0	10.0	10.0	10.0	9.8	9.7	9.6	9.5	10.0	10.0	10.0	10.0	9.1	8.8	9.9	9.9	10.0	10.0	9.3	9.3	9.3
Flour	Pound	6.6	6.3	6.9	6.8	7.1	7.1	6.4	6.3	6.3	6.6	6.9	7.0	6.7	6.7	6.9	7.0	6.5	6.6	7.2	7.1	6.4	6.4	6.4
Cornmeal	do	7.4	7.5	8.2	7.7	5.1	5.0	5.3	5.1	5.7	5.7	6.7	6.4	7.1	7.4	6.2	5.9	5.4	5.3	5.4	5.1	6.3	6.4	6.4
Corn flakes	(5)	13.8	13.7	14.7	13.9	14.8	14.9	13.5	13.3	14.3	14.3	15.8	15.8	14.6	14.7	14.6	14.4	14.4	14.4	14.4	14.4	14.9	14.9	14.9
Rice	(6)	24.0	24.0	31.7	30.0	25.0	25.0	25.2	24.9	25.9	26.5	25.7	25.6	24.7	25.3	24.8	24.7	25.1	25.2	25.4	25.5	25.5	25.0	25.0
Cream of Wheat	(6)	14.3	14.0	14.1	12.7	12.5	12.5	14.1	13.6	13.1	12.8	13.3	13.5	13.5	13.4	12.4	12.0	14.5	14.2	12.8	12.4	13.8	13.4	13.4
Beans, navy	Pound	16.4	15.5	15.3	13.5	17.9	16.4	13.6	11.6	12.8	11.8	16.0	14.7	15.4	13.9	16.2	14.7	13.6	11.1	16.2	15.3	15.6	14.0	14.0
Potatoes	do	3.4	3.3	2.1	1.9	3.8	3.8	3.3	3.3	3.0	3.4	3.7	3.4	3.3	3.2	3.8	3.3	3.0	2.7	4.0	3.8	3.2	2.8	2.8
Onions	do	4.3	4.4	4.4	3.9	4.7	4.9	3.7	3.6	3.7	4.3	5.3	5.1	4.3	4.6	4.6	4.8	4.1	4.3	5.3	5.4	4.7	4.7	4.7
Cabbage	do	4.4	4.3	4.0	5.6	4.6	4.6	3.4	3.3	4.2	4.2	5.5	4.9	4.0	4.1	4.6	3.6	4.5	4.4	5.7	5.3	4.7	4.4	4.4
Beans, baked	(5)	18.7	17.3	25.6	23.3	19.2	18.3	17.3	16.8	17.7	18.3	22.8	21.4	19.0	18.3	20.2	19.7	19.5	19.4	18.7	19.3	16.5	16.6	16.6
Corn, canned	(5)	21.3	21.5	20.0	18.9	22.3	22.0	18.1	17.8	15.8	16.2	20.9	20.6	20.8	20.8	19.3	18.6	19.4	19.4	22.5	21.5	18.0	17.8	17.8
Peas, canned	(5)	21.0	21.2	19.8	19.1	22.7	22.7	17.3	17.0	16.1	16.5	21.7	20.4	19.7	19.6	19.7	19.6	17.9	17.9	22.7	21.5	18.2	17.7	17.7
Tomatoes, canned	(5)	19.1	18.9	20.0	19.0	16.1	15.7	16.3	15.6	14.8	15.3	18.1	17.8	20.2	18.9	15.5	14.6	17.1	17.6	16.7	15.6	17.9	17.4	17.4
Sugar, granulated	Pound	16.6	10.5	11.9	11.9	10.7	10.6	10.5	10.5	11.0	10.7	11.3	11.2	10.8	10.8	10.9	10.8	11.0	11.0	11.0	10.9	11.3	11.3	11.3
Tea	do	60.7	67.1	80.0	76.8	73.7	74.7	68.7	67.9	82.2	82.7	78.3	78.1	61.3	62.1	57.6	60.7	83.3	83.1	81.1	81.4	77.5	79.7	79.7
Coffee	do	35.4	35.9	42.2	44.5	33.0	35.7	32.6	34.8	35.7	36.5	38.3	39.3	35.0	37.2	32.4	32.9	37.0	37.9	38.5	40.5	33.9	37.1	37.1
Prunes	do	20.9	21.5	17.8	18.1	21.5	22.6	19.2	19.9	21.9	21.2	19.8	20.9	19.3	18.4	19.0	19.7	18.5	18.3	21.0	21.6	18.5	19.0	19.0
Raisins	do	16.8	16.5	15.3	15.5	16.6	16.6	16.8	16.0	14.9	15.1	17.1	17.1	16.4	15.8	17.2	17.3	17.5	17.8	17.9	18.3	17.7	18.2	18.2
Bananas	Dozen	36.3	35.6	46.3	46.7	40.8	40.0	38.1	34.0	38.9	38.9	36.7	37.1	33.6	28.8	34.0	31.7	28.5	26.2	35.0	33.3	43.3	41.4	41.4
Oranges	do	48.0	48.4	52.2	49.1	44.4	45.0	39.4	38.9	49.4	44.8	51.4	47.8	49.3	40.9	55.0	45.2	49.5	45.9	36.7	40.5	59.7	52.3	52.3

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Federal Reserve Bank of St. Louis

Article.	Unit.	Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.		Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.		Norfolk, Va.		Omaha, Nebr.	
		Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.
		Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.	Cts.
Sirloin steak	Pound	40.8	41.3	37.7	37.7	55.8	53.6	39.2	39.2	31.5	33.5	35.0	35.3	47.7	47.3	56.5	55.3	46.8	46.7	37.2	37.0
Round steak	do	38.3	38.8	36.2	36.2	49.8	48.1	36.8	36.7	30.0	31.4	34.7	35.1	48.2	47.6	51.5	49.5	42.2	42.0	35.6	35.3
Rib roast	do	35.2	34.2	31.3	31.3	34.0	33.2	30.0	30.9	25.9	28.1	31.6	30.7	37.1	40.2	39.5	38.4	39.5	37.2	28.4	28.3
Chuck roast	do	27.9	28.7	27.8	27.6	30.4	29.8	26.6	26.8	22.3	23.9	27.3	25.8	34.0	33.8	33.9	33.6	31.0	31.3	24.9	25.0
Plate beef	do	23.5	24.1	23.5	23.1	.....	.....	22.5	23.0	17.4	18.7	24.8	22.7	25.6	25.3	.....	.....	22.9	22.8	18.6	18.8
Pork chops	do	39.0	38.3	38.3	34.9	38.2	35.5	38.1	35.7	35.7	33.9	46.9	41.0	41.8	39.4	39.0	36.5	40.3	36.2	36.8	33.3
Bacon, sliced	do	60.8	60.0	59.9	57.9	54.4	51.0	62.5	57.8	57.5	43.3	60.6	62.5	53.6	49.9	61.2	57.9	57.8	56.6	60.3	58.4
Ham, sliced	do	53.3	53.3	55.4	53.8	54.2	49.1	55.0	51.5	52.2	52.5	52.9	55.0	60.0	55.0	61.1	58.4	50.0	42.2	55.6	55.0
Lamb	do	35.0	40.0	38.8	40.0	38.0	37.2	35.6	36.9	29.5	31.6	34.6	36.1	41.8	40.3	40.2	40.1	41.4	43.2	32.1	29.4
Hens	do	34.1	34.7	40.3	41.3	46.6	43.8	34.5	34.0	32.6	33.7	40.6	39.4	42.3	41.6	44.4	41.4	43.7	46.2	33.1	33.9
Salmon, canned	do	30.1	30.5	30.4	30.4	30.8	30.9	35.4	33.7	35.9	36.7	29.0	30.9	36.0	34.7	37.4	34.3	32.2	34.1	32.5	31.4
Milk, fresh	Quart	18.5	18.5	15.0	15.0	15.4	15.0	18.0	18.0	13.0	13.0	18.3	18.3	15.0	18.0	16.0	18.0	18.0	18.0	14.8	15.0
Milk, evaporated ¹	(2)	17.2	16.3	15.1	15.2	17.5	18.1	16.5	16.5	14.9	15.0	16.6	17.6	15.4	15.5	15.8	15.7	17.3	16.8	17.5	17.0
Butter	Pound	72.9	54.3	76.1	56.8	75.1	59.7	75.9	58.9	65.7	50.8	76.4	59.3	77.9	61.4	69.6	57.2	73.6	62.3	72.6	52.5
Oleomargarine	do	39.9	39.4	40.8	40.6	38.4	38.2	41.8	41.3	37.1	36.4	42.3	41.0	39.8	39.6	39.6	39.3	43.8	43.8	40.2	39.5
Nut margarine	do	39.0	40.0	36.0	35.0	36.0	35.2	41.3	40.0	32.8	31.8	.....	.....	35.9	36.0	37.2	36.6	39.5	39.5	36.0	36.2
Cheese	do	47.4	40.5	48.6	39.9	39.8	40.1	47.4	39.1	43.2	35.5	47.2	42.3	42.6	43.5	42.6	42.9	44.9	41.2	45.3	39.5
Lard	do	34.5	33.2	32.4	30.2	33.0	31.9	33.9	32.8	31.9	31.0	33.7	33.7	34.1	32.8	33.7	31.7	35.6	34.5	34.3	33.5
Crisco	do	33.5	34.4	32.6	32.4	33.8	33.8	31.7	32.8	33.6	33.2	33.6	34.0	32.0	32.2	34.4	34.0	34.3	33.6	32.9	33.6
Eggs, strictly fresh	Dozen	69.6	43.5	68.3	43.2	87.3	63.5	43.7	60.6	41.8	74.2	64.6	85.5	63.8	93.3	68.5	73.4	49.8	70.8	44.7	.....
Eggs, storage	do	.....	.....	62.5	51.8	60.0	.....	50.4	.....	68.3	47.5	60.0	54.0	59.5	49.0	63.3	.....	59.3	.....	59.3	.....
Bread	Pound	10.0	10.0	9.8	9.8	9.3	9.3	10.0	10.0	9.2	9.2	9.7	9.7	9.7	9.7	10.2	10.0	9.9	9.9	10.0	10.0
Flour	do	6.7	6.9	6.8	6.8	6.9	6.7	7.0	7.2	6.2	6.2	7.1	7.2	6.7	6.8	6.5	6.3	6.9	6.9	6.3	6.3
Corn meal	do	5.4	5.4	4.9	4.9	7.5	7.5	5.5	5.1	5.6	5.3	5.7	5.9	6.8	6.9	7.7	7.8	6.0	5.6	5.6	5.9
Corn flakes	(4)	14.8	14.8	13.5	13.8	15.0	15.0	14.5	14.5	15.0	14.3	14.6	14.7	12.7	12.8	14.1	14.1	14.9	14.0	14.8	14.7
Cream of Wheat	(5)	25.5	25.0	25.4	25.3	24.8	25.0	24.5	24.5	25.1	25.2	25.3	25.3	23.9	25.6	24.6	24.6	25.5	24.8	25.4	25.4
Rice	Pound	13.1	13.0	13.6	13.3	13.5	13.1	13.0	12.3	13.8	13.6	12.7	12.9	14.4	14.2	14.4	14.3	15.1	14.2	14.1	14.1
Beans, navy	do	14.9	13.8	14.8	13.9	14.9	14.0	15.2	13.5	12.6	9.8	15.8	15.7	15.2	13.8	16.0	15.2	16.0	14.3	14.2	13.3
Potatoes	do	3.4	3.4	2.7	2.4	3.1	2.7	3.4	3.1	2.3	2.4	4.1	4.1	4.0	3.9	3.4	3.2	3.2	3.0	2.7	2.6
Onions	do	4.7	5.0	3.9	4.1	3.9	4.1	4.4	4.6	2.7	3.2	4.2	4.8	4.7	4.9	5.1	5.2	4.8	5.2	3.8	4.2
Cabbage	do	4.7	5.2	4.1	4.9	2.8	3.5	4.0	4.2	2.6	2.8	4.7	4.8	3.6	3.9	4.2	4.3	5.6	5.6	3.9	4.2
Beans, baked	(6)	20.0	20.3	18.1	17.6	20.6	19.5	19.9	19.6	20.4	18.6	19.6	19.8	16.6	16.8	19.2	18.9	18.1	15.2	21.6	21.8
Corn, canned	(6)	19.8	19.4	19.4	19.6	22.3	22.2	19.5	18.7	15.2	16.3	19.4	20.0	21.9	21.9	20.9	21.5	22.4	23.4	19.3	18.5
Peas, canned	(6)	19.9	19.1	19.1	19.2	20.9	21.2	18.1	18.2	16.0	15.4	18.9	19.6	19.5	19.8	21.2	21.8	22.3	22.9	20.1	19.7
Tomatoes, canned	(6)	17.7	17.6	16.3	15.6	21.9	22.8	15.8	15.1	16.4	16.3	14.9	15.2	28.5	17.5	18.3	18.3	19.1	16.4	18.4	18.0
Sugar, granulated	Pound	10.9	10.9	10.9	10.8	10.7	10.7	10.8	10.8	11.1	11.0	10.7	10.9	10.1	10.0	10.5	10.3	10.7	10.4	11.0	10.8
Tea	do	86.3	80.8	80.6	79.0	63.3	62.7	82.8	83.1	60.0	58.9	66.5	73.3	58.6	59.2	64.3	61.3	84.4	84.4	71.4	72.6
Coffee	do	38.3	39.2	34.9	37.0	37.3	39.8	37.4	38.3	35.4	38.6	30.9	34.2	34.2	34.4	36.0	35.5	36.9	39.9	37.4	38.3
Prunes	do	16.0	17.2	18.1	19.7	18.9	19.5	21.3	20.8	20.2	22.2	20.7	21.4	21.4	21.8	23.0	24.4	24.6	21.3	20.9	20.8
Raisins	do	17.9	18.0	17.2	15.7	16.5	16.5	17.7	16.8	15.1	15.2	19.7	20.0	15.4	15.5	16.4	16.4	16.4	16.1	17.5	17.2
Bananas	Dozen	38.5	35.6	38.3	36.7	.....	32.5	35.4	33.8	40.0	35.6	33.0	30.0	38.3	37.7	34.3	33.8	36.7	35.8	45.0	40.0
Oranges	do	51.5	56.7	40.8	41.2	52.9	46.9	46.4	45.2	55.4	46.0	42.2	45.7	53.1	50.0	59.7	53.5	48.8	48.6	57.0	49.2

¹ Unsweetened.² 15-16 ounce can.³ Baked weight.⁴ 8-ounce package.⁵ 28-ounce package.⁶ No. 2 can.

RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 SELECTED CITIES ON JAN. 15 AND FEB. 15, 1919—Concluded.

Article.	Unit.	Peoria, Ill.		Portland, Me.		Portland, Oreg.		Providence, R. I.		Richmond, Va.		Rochester, N. Y.		St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
		Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.	Jan., 1919.	Feb., 1919.
Sirloin steak.....	Pound.....	Cts. 34.9	Cts. 42.1	Cts. 58.3	Cts. 58.1	Cts. 32.8	Cts. 33.6	Cts. 66.1	Cts. 65.6	Cts. 44.9	Cts. 44.4	Cts. 39.3	Cts. 39.2	Cts. 35.4	Cts. 36.4	Cts. 34.0	Cts. 34.1	Cts. 47.1	Cts. 46.5	Cts. 34.4	Cts. 33.1
Round steak.....	do.....	34.1	33.3	50.5	49.7	31.4	31.6	53.9	53.1	41.7	41.8	37.9	37.3	31.6	31.9	32.7	32.7	43.2	42.3	33.8	33.1
Rib roast.....	do.....	26.7	26.5	34.3	33.9	29.1	29.9	42.5	42.5	36.1	35.2	31.8	32.2	29.0	29.2	28.0	27.9	38.2	38.0	28.4	27.8
Chuck roast.....	do.....	24.5	24.4	29.6	29.3	24.2	23.9	36.2	36.5	40.1	31.6	29.8	29.8	25.4	26.0	24.3	24.0	32.6	31.8	24.9	24.9
Plate beef.....	do.....	19.1	19.4			18.9	19.2			26.1	25.6	22.9	30.2	19.3	18.6	18.8	18.7	23.2	22.8	20.4	20.4
Pork chops.....	do.....	35.4	33.1	41.1	38.6	42.9	41.1	42.4	41.2	44.0	36.8	48.8	38.1	35.8	32.0	42.3	40.5	43.8	39.8	37.9	34.3
Bacon, sliced.....	do.....	59.0	57.9	55.5	52.4	58.7	57.3	55.7	52.7	57.1	51.1	50.4	49.6	56.3	53.3	61.7	60.0	62.7	60.0	55.6	53.8
Ham, sliced.....	do.....	55.7	54.6	56.8	54.8	55.9	54.9	62.5	60.9	52.6	49.0	55.8	51.6	54.6	52.5	53.8	52.3	60.6	58.9	50.8	49.1
Lamb.....	do.....	34.2	35.5	36.7	36.1	32.4	34.6	42.0	41.2	43.0	40.7	33.8	35.7	29.6	29.8	29.6	29.8	39.5	40.3	35.8	35.4
Hens.....	do.....	33.2	34.0	44.8	43.3	42.1	40.3	44.8	43.6	44.2	42.9	43.5	43.7	35.1	33.7	35.2	35.7	45.3	45.1	30.0	32.0
Salmon, canned.....	do.....	39.9	30.5	29.9	29.9	36.9	32.7	35.6	35.2	28.4	30.9	30.9	31.6	31.7	34.2	32.7	32.4	32.2	32.7	32.0	32.0
Milk, fresh.....	Quart.....	11.9	11.9	16.0	16.0	15.6	15.5	16.5	16.4	15.7	15.5	15.0	14.0	13.7	13.0	12.5	12.5	15.0	14.0	14.3	14.3
Milk, evaporated ¹	do.....	17.6	18.0	15.6	15.9	16.9	16.1	16.4	16.3	15.5	15.5	16.5	16.8	15.0	14.9	17.3	16.6	15.7	15.2	17.4	17.4
Butter.....	Pound.....	70.2	54.1	74.5	60.2	72.8	56.2	72.9	57.3	79.2	61.7	73.8	57.6	69.7	51.9	70.3	54.4	70.6	56.9	75.6	56.0
Oleomargarine.....	do.....	40.3	39.9	39.1	39.0	43.7	41.5	36.9	36.9	40.7	40.4	40.1	40.8	38.5	37.9	40.0	40.0	39.3	38.9	41.4	40.2
Nut margarine.....	do.....	37.9	36.3	35.8	35.6	39.9	38.0	34.1	33.6	38.8	37.8	34.4	33.5	35.0	33.9	39.2	39.3	36.2	35.5	37.4	37.4
Cheese.....	do.....	45.7	40.6	41.4	41.9	46.6	42.8	39.9	40.7	43.8	43.1	41.7	40.9	44.2	38.0	44.2	38.3	41.8	41.4	47.8	41.0
Lard.....	do.....	34.3	32.1	33.5	31.9	35.0	34.2	33.5	32.4	34.9	33.5	33.2	32.5	33.1	31.7	37.6	34.5	34.0	32.3	33.9	32.2
Crisco.....	do.....	34.2	33.2	34.4	33.6	35.8	35.7	33.9	34.7	34.1	33.3	32.9	32.8	34.3	34.3	36.8	36.1	33.5	33.4	35.2	34.4
Eggs, strictly fresh.....	Dozen.....	69.8	40.0	88.1	62.6	72.0	49.8	88.5	69.9	73.0	49.9	83.4	54.3	65.1	41.4	75.4	48.1	78.6	57.0	72.3	42.3
Eggs, storage.....	do.....	58.8		62.5	56.7	61.0		60.5	47.8	63.3		61.0		51.7	30.7	61.7	40.0	65.0	59.2		
Bread.....	Pound ³	10.0	10.0	10.0	10.0	9.9	9.8	10.0	10.0	10.0	10.0	10.0	10.0	8.7	8.6	10.2	10.0	10.0	10.0	10.0	10.0
Flour.....	Pound.....	6.9	7.0	6.6	6.6	6.7	6.6	6.6	6.5	6.8	6.5	6.5	6.3	6.3	5.6	5.6	6.9	7.0	6.5	6.7	6.7
Corn meal.....	do.....	6.2	6.0	6.7	6.6	7.5	7.3	6.5	6.1	5.9	5.7	6.4	6.3	6.0	6.0	7.6	7.5	7.0	6.4	6.5	6.6
Corn flakes.....	do.....	14.9	14.9	13.8	13.8	15.0	14.7	14.1	13.9	14.9	14.6	13.9	13.6	13.2	14.8	14.8	14.8	14.0	14.1	14.9	14.7
Cream of Wheat.....	do.....	25.1	26.2	25.1	25.1	28.3	28.9	24.1	24.3	25.0	24.8	23.9	24.3	26.0	25.8	25.7	25.7	23.8	24.7	27.6	26.8
Rice.....	Pound.....	13.9	14.0	13.7	14.0	14.2	13.8	13.8	13.3	14.9	14.7	14.3	14.0	14.1	14.0	13.8	13.7	13.5	13.2	13.9	13.8
Beans, navy.....	do.....	15.0	13.8	15.0	13.4	13.5	12.7	15.1	13.5	16.4	15.3	14.2	13.4	13.0	11.8	14.7	14.2	16.2	15.4	14.3	13.6
Potatoes.....	do.....	2.7	2.7	3.1	2.8	2.4	2.2	3.3	2.9	3.4	3.3	2.7	2.5	2.2	2.1	2.2	2.1	2.8	2.7	3.2	3.0
Onions.....	do.....	4.6	4.6	3.6	4.1	3.3	3.3	3.8	4.1	5.1	5.2	3.1	3.4	3.0	3.3	4.5	4.6	4.1	4.2	4.1	3.9
Cabbage.....	do.....	4.1	4.4	2.4	2.5	4.2	4.7	3.2	3.7	4.6	4.7	3.7	4.5	3.3	3.5	5.1	5.2	3.5	3.6	4.0	4.2
Beans, baked.....	do.....	19.5	19.6	21.8	21.9	25.0	24.3	18.5	17.6	18.7	16.9	17.6	16.9	16.4	17.5	20.9	20.9	17.9	16.5	19.1	19.3
Corn, canned.....	do.....	17.3	17.2	21.8	21.6	20.8	20.8	20.0	19.4	20.4	20.4	21.4	21.4	18.9	19.2	18.5	18.3	20.5	20.3	17.7	17.6
Peas, canned.....	do.....	18.7	19.0	20.4	19.9	20.4	21.0	19.9	19.7	21.5	21.2	19.5	19.2	17.2	16.8	18.3	17.9	18.5	18.1	17.8	18.0
Tomatoes, canned.....	do.....	17.1	18.1	20.6	20.6	17.9	18.6	19.4	18.7	18.6	18.2	20.3	19.7	18.7	18.8	16.8	15.7	20.2	18.9	18.7	17.6
Sugar, granulated.....	Pound.....	11.2	11.1	10.6	10.5	10.8	10.8	10.6	10.6	11.0	10.9	10.6	10.4	11.2	11.1	11.4	11.4	10.7	10.6	11.0	10.9
Tea.....	do.....	69.0	71.4	64.0	64.7	60.8	62.3	62.7	62.5	79.2	78.9	60.4	61.1	58.5	58.3	67.4	68.0	63.5	64.6	79.5	80.0
Coffee.....	do.....	35.6	36.2	35.5	37.5	36.3	38.0	38.4	40.0	32.9	35.5	33.3	34.4	35.4	36.3	37.0	40.4	35.0	36.3	33.9	36.3
Prunes.....	do.....	21.9	21.0	19.3	20.3	15.5	14.8	20.5	20.1	19.6	18.9	20.8	21.2	20.2	19.4	16.2	17.5	18.8	19.5	17.8	18.6
Raisins.....	do.....	16.4	16.8	15.4	15.2	15.6	15.6	15.3	15.5	16.0	16.1	15.2	15.1	15.2	15.4	15.0	15.2	14.5	14.7	17.7	17.2
Bananas.....	Dozen.....	10.2	7.9	36.9	35.0	44.4	43.5	35.0	35.0	40.0	41.5	37.3	39.8	46.3	40.0	44.4	45.7	33.3	31.8	42.5	36.0
Oranges.....	do.....	58.2	47.5	64.2	55.4	56.7	53.3	56.1	52.2	44.6	44.6	60.5	47.3	57.3	45.4	59.3	48.8	50.5	45.9	58.6	49.3

[1050]

² 15-16 ounce can.

Baked weight.

⁴ 8-ounce package.

⁵ 28-ounce package.

⁶ No. 2 can.

⁷ Per pound.

RETAIL PRICES OF DRY GOODS IN THE UNITED STATES.

The following table gives the average retail prices of 10 articles of dry goods for May 15 and October 15, 1918, and for February 15, 1919. The averages given are based on the retail prices of only standard brands.

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15 AND OCT. 15, 1918, AND ON FEB. 15, 1919.

Article.	Unit.	Atlanta, Ga.			Baltimore, Md.			Birmingham, Ala.		
		1918		Feb. 15, 1919.	1918		Feb. 15, 1919.	1918		Feb. 15, 1919.
		May 15.	Oct. 15.		May 15.	Oct. 15.		May 15.	Oct. 15.	
Calico, 24 to 25 inch.....	Per yard.	\$0.200	\$0.250	.....	\$0.235	\$0.350	\$0.215	\$0.210	\$0.210	\$0.177
Percale.....	do.	.299	.400	\$0.384	.316	.409	.361	.305	.370	.310
Gingham, apron, 27 to 28 inch.....	do.	.267	.320	.274	.276	.292	.253	.258	.279	.260
Gingham, dress, 27-inch.....	do.	.306	.383	.369	.290	.394	.323	.287	.413	.358
Gingham, dress, 32-inch.....	do.	.....	.521	.543	.....	.521	.472	.....	.503	.518
Muslin, bleached.....	do.	.321	.338	.280	.345	.384	.289	.250	.331	.262
Sheeting, bleached, 9-4.....	do.	.730	.788	.744	.798	.890	.809	.639	.698	.622
Sheets, bleached, 81 by 90.....	Persheet.	1.964	2.004	1.935	2.077	2.268	1.899	1.594	1.838	1.742
Outing flannel, 27 to 28 inch.....	Per yard.	.306	.377	.337	.300	.392	.298	.287	.349	.355
Flannel, white, wool, 27-inch.....	do.	.....	.750	.750	.....	.945	.945	.....	.990	.....
Blankets, cotton, 66 by 80.....	Per pair.	4.792	5.490	.....	.....	5.938	5.175	.....	5.310	5.475
		Boston, Mass.			Bridgeport, Conn.			Buffalo, N. Y.		
Calico, 24 to 25 inch.....	Per yard.	\$0.197	\$0.220	\$0.190	\$0.147	\$0.190	\$0.190	\$0.193	\$0.263	\$0.218
Percale.....	do.	.325	.397	.346	.250	.395	.338	.316	.384	.363
Gingham, apron, 27 to 28 inch.....	do.	.305	.301	.275	.260	.290	.260	.277	.307	.268
Gingham, dress, 27-inch.....	do.	.310	.368	.289	.350	.377	.325	.328	.360	.355
Gingham, dress, 32-inch.....	do.	.....	.504	.516	.....	.544	.529	.....	.579	.578
Muslin, bleached.....	do.	.309	.378	.302	.290	.357	.280	.328	.346	.288
Sheeting, bleached, 9-4.....	do.	.751	.834	.798	.723	.870	.797	.784	.854	.793
Sheets, bleached, 81 by 90.....	Persheet.	1.950	2.164	2.026	1.668	2.155	1.990	1.925	2.108	1.993
Outing flannel, 27 to 28 inch.....	Per yard.	.391	.368	.311	.235	.338	.320	.355	.377	.343
Flannel, white, wool, 27-inch.....	do.	.....	1.125	1.000	.....	.760	.783	.....	.917	.886
Blankets, cotton, 66 by 80.....	Per pair.	.....	5.650	5.783	.....	6.950	4.003	.....	6.124	6.194
		Butte, Mont.			Charleston, S. C.			Chicago, Ill.		
Calico, 24 to 25 inch.....	Per yard.	\$0.150	\$0.168	\$0.174	\$0.220	\$0.253	\$0.159	\$0.183	\$0.246	\$0.195
Percale.....	do.	.300	.329	.330	.338	.388	.356	.355	.350	.310
Gingham, apron, 27 to 28 inch.....	do.	.250	.250	.250	.258	.286	.228	.250	.268	.212
Gingham, dress, 27-inch.....	do.	.317	.363	.310	.326	.350	.333	.343	.363	.323
Gingham, dress, 32-inch.....	do.	.....	.533	.400	.....	.413	.428	.....	.614	.626
Muslin, bleached.....	do.	.333	.363	.313	.303	.312	.275	.307	.343	.300
Sheeting, bleached, 9-4.....	do.	.725	.839	.808	.670	.831	.745	.822	.801	.762
Sheets, bleached, 81 by 90.....	Persheet.	2.000	2.242	2.000	1.796	2.016	2.032	2.040	2.140	1.932
Outing flannel, 27 to 28 inch.....	Per yard.	.250	.349	.317	.318	.368	.294	.349	.364	.353
Flannel, white, wool, 27-inch.....	do.	.....	.850	.925	.....	.650	.....	.....	.900	.....
Blankets, cotton, 66 by 80.....	Per pair.	.....	5.990	5.817	.....	5.160	.....	.....	5.433	5.433
		Cincinnati, Ohio.			Cleveland, Ohio.			Columbus, Ohio.		
Calico, 24 to 25 inch.....	Per yard.	\$0.233	\$0.238	\$0.194	\$0.201	\$0.233	\$0.155	\$0.196	\$0.230	\$0.180
Percale.....	do.	.283	.319	.295	.320	.387	.315	.336	.383	.348
Gingham, apron, 27 to 28 inch.....	do.	.253	.270	.254	.267	.307	.227	.250	.307	.285
Gingham, dress, 27-inch.....	do.	.290	.314	.298	.300	.352	.297	.350	.371	.308
Gingham, dress, 32-inch.....	do.	.....	.588	.589	.....	.545	.430	.....	.592	.566
Muslin, bleached.....	do.	.269	.303	.268	.338	.358	.253	.309	.348	.267
Sheeting, bleached, 9-4.....	do.	.726	.798	.702	.776	.829	.733	.769	.836	.781
Sheets, bleached, 81 by 90.....	Persheet.	1.743	1.999	1.901	1.965	2.124	1.650	1.906	2.047	1.919
Outing flannel, 27 to 28 inch.....	Per yard.	.343	.388	.337	.360	.362	.304	.361	.424	.341
Flannel, white, wool, 27-inch.....	do.	.....	.650	.875	.....	1.175	.....	.....	1.125	.....
Blankets, cotton, 66 by 80.....	Per pair.	.....	6.400	6.375	.....	5.938	5.475	.....	6.567	6.370

AVERAGE RETAIL PRICES OF 10 ARTICLES OF DRY GOODS ON MAY 15 AND OCT. 15, 1918, AND ON FEB. 15, 1919—Continued.

Article.	Unit.	Dallas, Tex.			Denver, Colo.			Detroit, Mich.		
		1918		Feb.	1918		Feb.	1918		Feb.
		May 15.	Oct. 15.	15, 1919.	May 15.	Oct. 15.	15, 1919.	May 15.	Oct. 15.	15, 1919.
Calico, 24 to 25 inch.....	Per yard.	\$0.198	\$0.217	\$0.183	\$0.229	\$0.238	\$0.158	\$0.210	\$0.202	\$0.227
Percalé.....	do.	.330	.358	.338	.450	.490	.467	.326	.392	.336
Gingham, apron, 27 to 28 inch.....	do.	.225	.250	.233	.300	.342	.250	.268	.287	.257
Gingham, dress, 27-inch.....	do.	.310	.325	.330	.350	.360	.339	.275	.326	.332
Gingham, dress, 32-inch.....	do.	.....	.538	.549	.....	.638	.717	.....	.540	.510
Muslin, bleached.....	do.	.282	.291	.263	.361	.370	.309	.345	.366	.291
Sheeting, bleached, 9-4.....	do.	.672	.756	.704	.939	.953	.855	.771	.840	.793
Sheets, bleached, 81 by 90.....	Per sheet.	1.628	1.925	1.866	2.397	2.359	2.377	2.083	2.188	2.019
Outing flannel, 27 to 28 inch.....	Per yard.	.276	.340	.404	.390	.396	.408	.320	.361	.336
Flannel, white, wool, 27-inch.....	do.	.....	.788	.788	.....	.979	1.067	.....	1.025	.....
Blankets, cotton, 66 by 80.....	Per pair..	.....	6.483	5.920	.....	5.950	5.958	.....	4.696	5.000
		Fall River, Mass.			Houston, Tex.			Indianapolis, Ind.		
Calico, 24 to 25 inch.....	Per yard.	\$0.190	\$0.190	\$0.170	.....	\$0.203	\$0.188	\$0.200	\$0.257	\$0.142
Percalé.....	do.	.363	.373	.357	.....	.350	.400	.314	.368	.328
Gingham, apron, 27 to 28 inch.....	do.	.266	.290	.277	.....	.268	.270	.245	.304	.228
Gingham, dress, 27-inch.....	do.	.310	.316	.284	.....	.329	.360	.277	.349	.305
Gingham, dress, 32-inch.....	do.	.....	.520	.510	.....	.512	.625	.....	.508	.439
Muslin, bleached.....	do.	.304	.350	.301	.....	.301	.285	.302	.326	.289
Sheeting, bleached, 9-4.....	do.	.727	.835	.863	.....	.755	.713	.752	.829	.767
Sheets, bleached, 81 by 90.....	Per sheet.	1.690	2.080	1.883	.....	1.883	1.695	1.688	2.054	1.951
Outing flannel, 27 to 28 inch.....	Per yard.	.240	.373	.303	.....	.360	.275	.326	.378	.328
Flannel, white, wool, 27-inch.....	do.	.....	1.057	.....	.....	.615	.670	.....	.835	.923
Blankets, cotton, 66 by 80.....	Per pair..	.....	5.435	.....	.....	7.467	6.125	.....	5.988	5.893
		Jacksonville, Fla.			Kansas City, Mo.			Little Rock, Ark.		
Calico, 24 to 25 inch.....	Per yard.	\$0.193	\$0.254	\$0.180	\$0.235	\$0.247	\$0.190	\$0.229	\$0.201	\$0.169
Percalé.....	do.	.329	.442	.427	.350	.436	.438	.317	.361	.322
Gingham, apron, 27 to 28 inch.....	do.	.300	.314	.290	.295	.316	.273	.233	.250	.248
Gingham, dress, 27-inch.....	do.	.343	.368	.350	.326	.390	.386	.285	.325	.291
Gingham, dress, 32-inch.....	do.	.....	.524	.445	.....	.538	.562	.....	.495	.463
Muslin, bleached.....	do.	.338	.348	.307	.319	.359	.311	.284	.309	.249
Sheeting, bleached, 9-4.....	do.	.740	.831	.775	.790	.894	.818	.700	.806	.788
Sheets, bleached, 81 by 90.....	Per sheet.	2.003	2.035	2.000	1.760	2.229	1.915	1.703	1.915	1.759
Outing flannel, 27 to 28 inch.....	Per yard.	.317	.351	.330	.310	.400	.370	.291	.336	.270
Flannel, white, wool, 27-inch.....	do.	.....	.775	.....	.....	.....	.890	.....	1.128	.764
Blankets, cotton, 66 by 80.....	Per pair..	.....	5.995	6.500	.....	6.108	6.480	.....	4.910	4.531
		Los Angeles, Calif.			Louisville, Ky.			Manchester, N. H.		
Calico, 24 to 25 inch.....	Per yard.	.....	\$0.255	\$0.207	\$0.180	\$0.244	\$0.160	\$0.223	\$0.279	\$0.161
Percalé.....	do.	\$0.329	.439	.439	.325	.410	.348	.305	.398	.358
Gingham, apron, 27 to 28 inch.....	do.	.280	.350	.263	.263	.299	.248	.300	.284	.261
Gingham, dress, 27-inch.....	do.	.297	.400	.371	.322	.403	.401	.353	.353	.318
Gingham, dress, 32-inch.....	do.	.....	.549	.538	.....	.583	.559	.....	.512	.492
Muslin, bleached.....	do.	.339	.360	.317	.292	.341	.263	.334	.355	.275
Sheeting, bleached, 9-4.....	do.	.740	.812	.769	.689	.778	.739	.777	.834	.734
Sheets, bleached, 81 by 90.....	Per sheet.	1.944	2.066	1.968	1.818	1.961	2.064	2.101	1.958	1.774
Outing flannel, 27 to 28 inch.....	Per yard.	.350	.397	.392	.377	.403	.374	.283	.388	.275
Flannel, white, wool, 27-inch.....	do.	.....	1.100	1.350	.....	.....	.....	.....	1.285	.....
Blankets, cotton, 66 by 80.....	Per pair..	.....	5.969	6.417	.....	5.960	6.125	.....	4.926	4.779
		Memphis, Tenn.			Milwaukee, Wis.			Minneapolis, Minn.		
Calico, 24 to 25 inch.....	Per yard.	\$0.235	\$0.259	\$0.221	\$0.180	\$0.209	\$0.170	\$0.183	\$0.226	\$0.156
Percalé.....	do.	.333	.424	.389	.316	.430	.335	.313	.387	.357
Gingham, apron, 27 to 28 inch.....	do.	.280	.293	.263	.258	.278	.249	.220	.273	.239
Gingham, dress, 27-inch.....	do.	.333	.352	.330	.280	.345	.323	.306	.346	.336
Gingham, dress, 32-inch.....	do.	.....	.549	.553	.....	.549	.542	.....	.606	.610
Muslin, bleached.....	do.	.322	.348	.285	.313	.335	.304	.313	.340	.285
Sheeting, bleached, 9-4.....	do.	.736	.854	.788	.752	.825	.814	.750	.812	.741
Sheets, bleached, 81 by 90.....	Per sheet.	1.981	2.164	1.978	2.248	2.133	1.981	1.905	2.163	1.950
Outing flannel, 27 to 28 inch.....	Per yard.	.288	.360	.331	.320	.331	.313	.328	.408	.319
Flannel, white, wool, 27-inch.....	do.	.....	1.350	.....	.....	.830	.600	.....	.800	.....
Blankets, cotton, 66 by 80.....	Per pair..	.....	6.033	5.777	.....	6.079	6.520	.....	5.782	5.497

179 to 173. A smaller decrease was shown for articles classed as miscellaneous. In the groups of fuel and lighting and house-furnishing goods no changes in the index occurred, while lumber and building materials registered a slight increase.

Among important commodities whose wholesale prices averaged lower in February than in January were cotton, barley, corn, oats, rye, hay, hops, peanuts, beans, butter, cheese, eggs, corn meal, bacon, fresh beef, hams, veal, milk, rice, potatoes, cotton and woolen goods, bar iron, copper, pig lead, bar silver, zinc, alum, glycerin, acids, jute, rubber, wood pulp, coke, linseed oil, turpentine, and rosin. Flaxseed, calfskins, hogs, sheep, poultry, tobacco, apples, lard, lamb, rope, whisky, cement, lime, lumber, shingles, leather, and raw silk averaged higher in price, while wheat, packers' hides, cattle, canned goods, coffee, wheat flour, prunes, glucose, sugar, salt, tea, cabbage, vinegar, nails, pig iron, steel, paper, laundry soap, coal, petroleum, and brick remained practically unchanged in price.

In the 12 months from February, 1918, to February, 1919, the index number of farm products increased from 207 to 215, that of food, etc., from 186 to 193, and that of cloths and clothing from 213 to 221. During the same time the index number of fuel and lighting increased from 171 to 181, that of lumber and building materials from 137 to 162, and that of house-furnishing goods, which is built on a limited number of tableware articles, from 188 to 233. The index number of miscellaneous articles, including such important commodities as cottonseed meal, jute, malt, lubricating oil, newsprint paper, rubber, starch, soap, plug tobacco, and wood pulp, increased from 181 to 205. On the other hand, the index number of metals and metal products decreased from 175 to 167, and that of chemicals and drugs from 217 to 173.

INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED MONTHS, 1913 TO FEBRUARY, 1919, BY GROUPS OF COMMODITIES.

[1913=100.]

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
1913.										
Average for year....	100	100	100	100	100	100	100	100	100	100
January.....	97	99	100	99	107	100	101	100	100	99
April.....	97	96	100	99	102	101	100	100	99	98
July.....	101	101	100	100	98	101	99	100	102	101
October.....	103	102	100	100	99	98	100	100	100	101
1914.										
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
October.....	103	107	98	87	83	96	109	103	95	99

INDEX NUMBERS OF WHOLESALE PRICES IN SPECIFIED MONTHS, 1913 TO FEBRUARY, 1919, BY GROUPS OF COMMODITIES—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.
1915.										
January.....	102	106	96	86	83	94	106	101	98	98
April.....	107	105	98	84	91	94	102	101	97	99
July.....	108	104	99	84	102	94	107	101	96	101
October.....	105	104	103	90	100	93	121	101	99	101
1916.										
January.....	108	114	110	102	126	99	140	105	107	110
April.....	114	117	119	105	147	102	150	109	111	116
July.....	118	121	126	105	145	98	143	111	122	119
October.....	136	140	137	128	151	101	135	114	132	133
1917.										
January.....	147	150	161	170	183	106	144	128	137	150
February.....	150	160	162	178	190	108	146	129	138	165
March.....	162	161	163	181	199	111	151	129	140	160
April.....	180	182	169	178	208	114	155	151	144	171
May.....	196	191	173	187	217	117	164	151	148	181
June.....	196	187	179	193	239	127	165	162	153	184
July.....	198	180	187	183	257	132	185	165	151	185
August.....	204	180	193	159	249	133	198	165	156	184
September.....	203	178	193	155	228	134	203	165	155	182
October.....	207	183	194	142	182	134	242	165	164	180
November.....	211	184	202	151	173	135	232	175	165	182
December.....	204	185	206	153	173	135	230	175	166	181
1918.										
January.....	205	188	209	169	173	136	216	188	178	185
February.....	207	186	213	171	175	137	217	188	181	187
March.....	211	178	220	171	175	142	217	188	184	187
April.....	217	179	230	170	176	145	214	188	193	191
May.....	212	178	234	172	177	147	209	188	197	191
June.....	214	179	243	171	177	148	205	192	199	193
July.....	221	185	249	178	183	152	202	192	192	198
August.....	229	191	251	178	183	156	207	227	191	202
September.....	236	199	251	179	183	158	206	233	195	207
October.....	233	199	253	179	186	157	204	233	197	204
November.....	219	203	253	182	186	163	201	233	207	206
December.....	221	207	246	183	183	163	182	233	204	206
1919.										
January.....	220	204	231	181	172	160	179	233	206	202
February.....	215	193	221	181	167	162	173	233	205	197

¹ Preliminary.

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

The index numbers of retail prices published by several foreign countries have been brought together with those of this bureau in the subjoined table after having been reduced to a common base, viz, prices for July, 1914, equal 100. This base was selected instead of the average for the year 1913, which is used in other tables of index numbers compiled by the bureau, because of the fact that in some instances satisfactory information for 1913 was not available. For Great Britain, Norway, and Sweden the index numbers are reproduced as published in the original sources, while those for Austria have been rounded off to the nearest whole number from

the latest available figures, as published in the British Labor Gazette. All these are shown on the July, 1914, base in the source from which the information is taken. The index numbers here shown for the remaining countries have been obtained by dividing the index for July, 1914, as published, into the index for each month specified in the table. As indicated in the table, some of these index numbers are weighted and some are not, while the number of articles included differs widely. They should not, therefore, be considered as closely comparable one with another.

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

[July, 1914=100.]

Year and month.	United States: 22 foodstuffs; 45 cities. Weighted.	Australia: 46 foodstuffs; 30 towns. Weighted.	Austria: 18 foodstuffs; Vienna. Weighted.	Canada: 29 foodstuffs; 60 cities. Weighted.	France: 13 foodstuffs	
					Cities over 10,000 population (except Paris). Weighted.	Paris only. Weighted.
1914.						
July	100	100	100	100	¹ 100	100
October	103	99	104	108		
1915.						
January	101	107	121	107	¹ 110	120
April	97	113	166	105		114
July	98	131	179	105	¹ 123	120
October	101	133	217	105		118
1916.						
January	105	129		112	¹ 133	134
April	107	131	222	112	¹ 137	132
July	109	130		114	¹ 141	129
October	119	125		125	¹ 146	135
1917.						
January	125	125	272	138	¹ 154	139
February	130	126		141		
March	130	126		144		
April	142	127	275	145	¹ 171	147
May	148	127	288	159		
June	149	127	312	160		
July	143	126	337	157	¹ 184	183
August	146	129	315	157		
September	150	129		157		
October	154	129		159	¹ 200	184
November	152	129		163		
December	154	128		165		
1918.						
January	157	129		167	¹ 211	191
February	158	130		169		
March	151	131		170		
April	151	131		169	¹ 232	218
May	155	132		171		
June	159	132		172		
July	164	131		175		206
August	168	128		181		
September	175	128		179		
October	177	131		182		
November	179	133		182		
December	183			184		

¹ Quarter beginning that month.

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

Year and month.	Great Britain: 21 foodstuffs; 600 towns. Weighted.	Italy: 7 foodstuffs; 40 cities (variable). Not weighted.	Netherlands: 29 articles; 40 cities. Not weighted.	New Zealand: 59 foodstuffs; 25 towns. Weighted.	Norway: 22 foodstuffs (variable); 20 towns (variable). Weighted.	Sweden: 21 articles; 44 towns. Weighted.
1914.						
July.....	100	100	¹ 100	100	100	100
October.....	112	104	¹ 107	102	.....	107
1915.						
January.....	118	108	114	111	.....	¹ 113
April.....	124	113	123	113	.....	¹ 121
July.....	132 ³	120	131	112	.....	¹ 124
October.....	140	127	128	112	⁴ 129	¹ 128
1916.						
January.....	145	133	135	116	.....	¹ 130
April.....	149	132	142	118	.....	¹ 134
July.....	161	132	150	119	⁵ 161	¹ 142
October.....	168	132	158	120	⁴ 166	¹ 152
1917.						
January.....	187	144	165	127	.....	160
February.....	189	154	165	126	.....	166
March.....	192	161	169	126	183	170
April.....	194	164	170	127	.....	175
May.....	198	167	180	128	197	175
June.....	202	171	184	128	.....	175
July.....	204	172	188	127	.....	177
August.....	202	178	.....	127	214	181
September.....	206	188	.....	129	.....	187
October.....	197	.....	.....	130	.....	192
November.....	206	.....	.....	130	230	200
December.....	205	.....	.....	132	.....	212
1918.						
January.....	206	190	.....	133	241	221
February.....	208	221	.....	134	.....	227
March.....	207	247	.....	134	253	235
April.....	206	236	.....	137	.....	247
May.....	207	.....	.....	139	264	258
June.....	208	239	.....	139	271	261
July.....	210	253	.....	139	279	268
August.....	218	.....	.....	141	284	280
September.....	216	.....	.....	141	.....	284
October.....	229	.....	.....	142	.....	310
November.....	233	.....	.....	.....	.....	.....
December.....	229	.....	.....	.....	.....	.....

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

BOARD TO READJUST PRICES FOR BASIC MATERIALS.

A plan to lower and stabilize prices in the United States was announced by the Secretary of Commerce in the Official United States Bulletin for February 25, 1919, after having received the approval of the President. The plan, as outlined, calls for the creation in the Department of Commerce of a board composed of representative men from industry, labor, and the Government who are to "put into practical effect a program for the readjustment of prices for basic materials in such a fashion as to create a firm foundation on which the consumer can base his future purchases, and the producer can form necessary estimates." The former vice chairman of the War Industries Board, George N. Peek, has been designated as chairman of this board, the remaining members being

Samuel P. Bush, Columbus, Ohio, president, Buckeye Steel Castings Co.; Anthony Caminetti, Washington, D. C., Commissioner General of Immigration, Department of Labor; Thomas K. Glenn, Atlanta, Ga., president, Atlantic Steel Co.; George R. James, Memphis, Tenn., president, William R. Moore Dry Goods Co.; T. C. Powell, Cincinnati, Ohio, director, capital expenditures, Railroad Administration; William M. Ritter, West Virginia, president, W. M. Ritter Lumber Co. The board has the assistance of the Council of National Defense.

In explaining the work to be accomplished by the board, the Secretary points out that there exists at the present time a condition of stagnation of business and industrial activity, resulting in widespread unemployment and consequent distress. A striking feature of the situation is the high prices demanded for practically all articles of trade and commerce. Living costs are abnormally high and will continue so until substantial reductions in the prices of necessary food staples are made. Money is abundant, but is not being used to employ labor and to purchase goods and materials.

These unusual conditions are attributable, it is believed, to the dislocation of industry brought about by the war, which caused a complete suspension of the ordinary operation of the law of demand and supply by diverting the country's energies into new and unnatural channels in order to mobilize all efforts possible in winning the war. It is apparent, the Secretary states, that the trouble resulting in the present unsatisfactory condition of industry is due to the continuance of the high prices of war times, which were in many instances agreed to by agencies of the Government functioning for war purposes, and not to any unhealthy general condition. Abnormal prices still remain because, up to the present time, no agency has been provided to bring about the necessary reductions. These reductions, it is held, should be made at once.

The procedure to be followed in seeking to obtain a return to normal price levels is summarized by the Secretary as follows:

1. It is believed that a remedy for these conditions can be had by a comparatively simple program. As the President has approved my appointing a board which will make a study of the subject and take action thereon, and as it will be made plain that the Department of Commerce and its board has the support of the President, there can be no doubt that industry generally will be glad to cooperate with the board in an endeavor to arrive at a solution of the difficulties.

2. Therefore one of the first steps which the board should take would be to call into consultation and conference the leaders of industry in such numbers and by such groups as it may be felt is wise. Probably the first of these conferences should be with representatives of industries producing basic materials, such as iron, steel, lumber, textiles, cement, copper, brick, and other construction materials, and from time to time thereafter such others as may be deemed proper. It is believed, however, that industries dealing in finished products will be able to largely (if not entirely) adjust their prices in line with the above policy without material aid from the committee.

3. At such conferences the general situation or conditions outlined above, and as they may change up to the time of the conference, should be considered and carefully understood, and the above-mentioned principles which ought to apply and govern the solution of the problems should also be fully understood and appreciated. It is believed that these principles and views will be readily accepted by the great majority of those called into conference, and further, that if any of those who come into conference question these principles and views, a discussion thereof in the conference will without any considerable delay lead to a unanimous acceptance thereof.

4. In addition to giving assistance to industry in reaching satisfactory price bases the board ought to be able to give valuable advice in regard to such questions as the disposal of surplus war materials, it being desirable to accomplish this in such a way as to have as little detrimental effect as possible upon private industrial activities.

It will be the endeavor of the board to act promptly by consulting and interchanging views with these representatives of industry in the fullest and freest manner possible, with a view to aiding and assisting industry in general to resume activities to the fullest practicable extent. The immediate object is to bring about such reduced prices as will bring the buying power of the Government itself, including the railroads, telephones, and telegraphs, into action and make it possible for the Government to state that it is willing to be a buyer for its needs at the reduced prices. If these conferences result in such an understanding on the part of the Government with respect to the important basic industries concerning proper prices and bases for prices at which purchases may be made by it, and these are approved by the board, it is believed that upon announcement thereof to the country in general the public will feel justified in promptly beginning a program of extensive buying.

Such a procedure will in substance establish immediately a basis upon which to resume activities, and in this way the law of supply and demand will be enabled to come into play and from that time forward it will control the changes and readjustments in selling prices of materials and the trend of prices, it is believed, will be upward and not downward.

In a statement published in the Official United States Bulletin for March 10, possible objections to the proposed plan for governmental action in the matter are answered as follows:

Objection (a): Business resents governmental interference and control, which is to be avoided rather than encouraged. Let conditions alone and the law of supply and demand will cure all evils.

Answer: The war developed a new thing in Government, cooperation and mutual help between Government and industry, in which Government appeared not as a policeman and not as a jealous guardian of a suspicious character but as a friend and helper. The idea proved itself. What is proposed is not governmental control. The board has no power of control. It is proposed to provide a forum in which industry can meet and agree on a policy for itself at the instance and with the approval of Government, which will help the law of supply and demand over the gap between hold-over war prices and a stable level.

Objection (b): Business and industry will not come into a governmental conference unless there is a power of compulsion.

Answer: The experience of the War Industries Board utterly disproves this criticism. It has been argued that patriotism impelled business and industry to the War Industries Board. Patriotism is not adjourned with the closing of the war.

Objection (c): War prices were fixed at such a level as to insure the production of many high-cost and inefficient producers. What is proposed would shut off this production.

Answer: This production is not needed in peace. The American people can not be expected to support inefficiency in the enterprises that serve them with the necessities of life or to maintain production not normally needed. Inflated production above that which would be supported by the law of supply and demand must cease.

Objection (d): Such readjustment must necessarily require redistribution and readjustment of labor.

Answer: This is quite true. It is necessary. The distribution and allocation of labor to war industries has upset the normal pattern in this country for four years. What is proposed is a stimulated peace industry which will employ as much or more labor as did war industries, especially considering the loss of man power, due to decreased immigration, loss by influenza, war, and probably increased Army and Navy. That it will employ them in different places and at different tasks is inevitable, whether the proposed step is taken or not.

Objection (e): A general reduction in selling prices now will force industry and commerce to take a loss on products purchased at war prices.

Answer: This is true and inevitable, whether the proposed plan is attempted or not, but under the proposed plan better adjustments are possible; buying will begin immediately, the overhead of continuing high-cost operation through a period of stagnation is eliminated, and, finally, much of the loss will be recouped by buying at fair prices and selling in the inevitably increasing market that will result from the normal operation of the law of supply and demand under prosperous conditions.

In conclusion, the statement points out that it is expected that the activities of the board will be only temporary, since the aim is merely to give governmental assistance to aid the law of supply and demand in resuming its normal functions. The splendid cooperation of American industry during the war leads to the belief that it will be continued during the trying period of reconstruction and readjustment upon which the country is now entering.

NEW PRICES OF IRON AND STEEL FIXED BY INDUSTRIAL BOARD.

Under the plan outlined the iron and steel industry was the first basic industry to be considered by the industrial board with a view to regulating prices so as to revive and stabilize business. After careful consideration and full discussion of the cost of production and all other facts relating to the iron and steel industry, a new schedule of proposed reduced prices was submitted to the board by representatives of the industry, and, after some changes, approved in March, 1919. In establishing these new prices it has been the purpose of the board and of the industry to fix prices at such a level as would be satisfactory to the consuming public and yet yield a moderate and reasonable profit to the investors. The importance of not disturbing wage rates or wage agreements has also been borne in mind, and it is believed that under the new schedule opportunities for employment will actually be increased because of the added volume of business that will follow an encouragement to operate mills and furnaces to capacity as a result of stabilized prices. To the em-

ployee the announcement of the board that present wage rates are to stand will prove highly gratifying. The new prices became effective upon approval.

The price list and reductions in iron and steel as submitted to the industrial board and approved by it are shown in the following table:

NEW PRICES OF IRON AND STEEL AS COMPARED WITH PRICES ON NOV. 11, 1918, AND PRESENT PRICES.

Iron and steel.	Price on Nov. 11, 1918.	Present price.	New price.	Reduction from—	
				Price on Nov. 11, 1918.	Present price.
Pig iron, basic.....	\$33.00	\$30.00	\$25.75	\$7.25	\$4.25
Billets, 4-inch.....	47.50	43.50	38.50	9.00	5.00
Billets, 2-inch.....	51.00	47.00	42.00	9.00	5.00
Sheet bars.....	51.00	47.00	42.00	9.00	5.00
Slabs.....	50.00	46.00	41.00	9.00	5.00
Skelp, sheared.....	3.25	3.00	2.65	3 12.00	3 7.00
Skelp, universal.....	3.15	2.90	2.55	3 12.00	3 7.00
Skelp, grooved.....	2.90	2.70	2.45	3 9.00	3 5.00
Merchant bar—base.....	2.90	2.70	2.35	3 11.00	3 7.00
Sheared plates.....	3.25	3.00	2.65	3 12.00	3 7.00
Structural base.....	3.00	2.80	2.45	3 11.00	3 7.00
Wire rod.....	57.00	57.00	52.00	5.00	5.00
Plain wire.....	3.25	3.25	3.00	3 5.00	3 5.00
Nails.....	3.50	3.50	3.25	3 5.00	3 5.00
Black sheets No. 28.....	5.00	4.70	4.35	3 13.00	3 7.00
Blue annealed No. 10.....	4.25	3.90	3.55	3 14.00	3 7.00
Galvanized sheets No. 23.....	6.25	6.05	5.70	3 11.00	3 7.00
Tin plate No. 100, box.....	7.75	7.35	7.00	3 15.00	3 7.00
Tubular products.....	(⁵)	(⁵)	(⁴)	(⁵)	(⁵)
Hoops, base.....	3.50	3.30	3.05	3 9.00	3 5.00
Light rails.....	3.00	2.70	2.45	3 11.00	3 5.00
Rails, standard Bessemer.....	55.00	55.00	45.00	10.00	10.00
Rails, standard, open hearth.....	57.00	57.00	47.00	10.00	10.00
Ore.....	(⁶)				

¹ Gross tons.

² Hundredweight.

³ Net tons.

⁴ Three and one-half points off card.

⁵ No change.

COOPERATION.

MUTUAL AND COOPERATIVE ASSOCIATIONS IN ARGENTINA.¹

The national law of Argentina relative to the formation of mutual or cooperative associations is very simple. It requires the adoption of a constitution, of a name, and a statement whether the association is limited or unlimited. The constitution shall determine the conditions of membership, of withdrawal from membership, and of exclusion of members, and the minimum capital and method of constituting it. Shares must be issued in the name of the member, who has one vote regardless of his holdings. Recent developments require that the law be broadened and modernized to meet present conditions.

The history of mutual associations in Argentina dates from 1852, though intermittent efforts in this direction, which, owing to political conditions, were not productive of permanent results, date as far back as 1825. The combined membership of mutual and cooperative associations in the country in the fiscal year 1914-15 was 593,172.

MUTUAL ASSOCIATIONS.

On December 31, 1913, there were 1,205 mutual associations in operation, 3 of which were mutual life insurance associations. The remaining 1,202 associations had a membership of 507,637, of whom 431,806 were adult males, 61,126 adult females, and 14,705 children. Their capital amounted to \$14,099,782. Receipts amounted to \$4,143,165, and disbursements for aid and pensions to \$2,268,592. Of these associations 41 were founded during the period 1854-1870, 107 in the next decade, 220 from 1881 to 1890, 275 from 1891 to 1900, and 559 during the period 1901-1913.

Data relative to the nationality of membership seem not to have been available, but of the total associations reported 172 were Argentine² and had a membership of 65,188. The 463 Italian associations had a membership of 166,086; the 250 Spanish associations had a membership of 110,040; the 181 cosmopolitan associations, composed principally of Argentines, Italians, and Spanish, had a membership of 150,004; the 92 French associations had a membership of

¹ La mutualidad y el cooperativismo en la República Argentina, por Dr. Domingo Bórea, Buenos Aires, Talleres Gráficos de L. J. Rosso y Cía, 1917.

² Associations in which all or nearly all are citizens of Argentina.

12,311; and the 44 associations of various nationalities had a membership of 4,008.

While it may not be true that the percentage of foreign members is greater than that of Argentines, it is certainly true that the percentage of foreigners affiliated with these associations, as compared with the total foreign population, exceeds the percentage of Argentines affiliated. According to the last census the population was 7,903,662, of which 2,357,952 were citizens of foreign countries, especially Italians (929,863) and Spanish (829,701).

The three insurance associations, two founded in 1901 and one in 1907, have a membership of 38,343, with a capital of \$5,813,521. In 1913 the amounts paid as pensions (by 1 association, with 36,342 members) totaled \$63,827 and for insurance (by 2 associations, with 2,001 members) totaled \$36,789.

COOPERATIVE ASSOCIATIONS.

Cooperative associations are classed as either urban or rural.

Urban associations.—During the year 1913-14 there were 40 urban cooperative associations in operation, of which 9 were cooperative banks, 6 building and loan societies, 10 consumers, 4 distributors, and 11 producers. Of the banks, one had been in operation since 1887 and had 3,505 members, with a total actual capital of \$6,711,669, and outstanding loans for building purposes amounting to \$14,618,397.

The membership of the 40 associations numbered 27,661. The nominal capital was \$17,696,344, of which \$14,389,220 was subscribed and \$12,061,694 paid up, with a reserve amounting to \$3,047,274. The total operations are summarized as follows: Value of articles sold \$1,599,379; value of articles manufactured, \$522,347; credits granted in 1913-14, \$20,482,620; total for the year, \$22,604,347.

Rural associations.—In 1914-15 the rural mutual and cooperative associations numbered 73, with a membership of 22,351, and an actual capital of \$2,589,238, or \$115.84 per member. Excluding the 10 insurance and 4 irrigation associations, the total operations in purchases and sales, credits, bank deposits, etc., amounted to \$5,074,990, which the report says "is a very modest amount of business in consideration of the capital, \$1,167,706," and which could have been increased to two or three times the amount had the banks shown a more liberal spirit.

The following is a résumé of the operations of these societies, exclusive of 11 "Raiffeisen funds," having in 1914-15 22,351 members and a capital of \$2,589,239:

OPERATIONS OF RURAL MUTUAL AND COOPERATIVE ASSOCIATIONS IN ARGENTINA
IN SPECIFIED YEARS.

Item.	1898-99 to 1911-12.	1912-13	1913-14	1914-15	1898-99 to 1914-15.
Sales, purchases, existing credits, deposits, etc.....	\$5,261,429	\$2,082,987	\$3,457,729	\$5,076,185	\$15,878,331
Insurance against hail:					
Number of insured.....	33,647	7,122	5,158	7,136	53,063
Number of policies.....	36,953	7,665	5,525	7,744	57,887
Acres insured.....	15,505,505	3,384,481	2,312,030	3,455,206	24,657,224
Amount of insurance.....	\$89,779,656	\$18,512,768	\$11,843,232	\$17,678,798	\$137,834,454
Premiums received.....	\$4,168,747	\$872,728	\$571,785	\$858,835	\$6,472,098
Losses paid.....	\$2,331,468	\$430,310	\$328,042	\$631,111	\$3,720,931
Fire insurance:					
Policies issued.....	1,104	164	81	260	1,609
Amount of insurance.....	\$1,464,887	\$229,496	\$131,579	\$259,587	\$2,085,549
Premiums received.....	\$96,527	\$15,422	\$9,800	\$14,316	\$136,066
Losses paid.....	\$61,888	\$5,113	\$5,862	\$5,130	\$77,994

It is stated that "69 per cent of all crop insurance is carried by stock companies." Of the balance, 31 per cent, the Mutual "La Protectora," of San Juan, carries much the larger part. From 1898 to 1915, inclusive, it issued 55,257 policies to 50,754 persons, insuring 24,618,133 acres planted in grain. The value of crops insured was \$133,022,074, premiums received \$6,218,419, and damages paid \$3,582,593. From which it is deduced that the amount paid for damages was 2.69 per cent of total insured value, average value of an acre insured was \$5.40, insurance cost per acre was \$0.25, and the average premium charged was 4.67 per cent of insured value.

According to the data available, it would seem that the business of this association has increased year by year. The period covered by the above summary is 17 years. A comparison of corresponding data for the year 1914-15 shows that one-seventh of this business was done in the last year, when 7,066 policies were issued to 7,652 agriculturists, insuring 3,452,181 acres of seeded land, valued at \$17,530,309, on which premiums were paid amounting to \$850,820, and damages to crops compensated for by the payment of \$630,710.

One of the most important rural associations is the Rural Association of Argentina, founded in 1866 for the purpose of assisting in agricultural development and progress, stock raising, and derivative industries, and in aiding all plans which might be profitable in these branches; proposing improved methods of farming and stock breeding, providing for exhibitions, encouraging technical studies and scientific investigations, stimulating private initiative, lending aid to public authorities, and in general providing for better agricultural

conditions. Since 1866, the year the association was organized, the value of live stock in the country has increased from \$77,683,500 to \$849,000,000 and the land under cultivation from 741,300 acres to 61,775,000 acres.

It would be impossible to ignore the influence of the Rural Association of Argentina in this rapid and remarkable evolution. Its counsel has been effective in abolishing the old and useless, preserving the useful, and modernizing it so as to render it adaptable to present conditions. In fact, its influence has tended to accentuate and establish progressive agricultural methods. It has become a moral, economic, educational, and financial force in the nation.

EMPLOYMENT AND UNEMPLOYMENT.

MAKING NEW OPPORTUNITIES FOR EMPLOYMENT.

BY BENTON MACKAYE.

LEGISLATIVE PROGRAMS FOR PUBLIC WORKS AND LAND DEVELOPMENT.

The Sixty-fifth Congress, during its last session ending March 4, 1919, had before it a number of legislative measures affecting the employment of labor. This was appropriate, for the net surplus of labor in the country during this session had been rising at the average rate approximately of 100,000 a week. The bills introduced related to employment on public works and to the development of farm lands and other natural resources. None of these measures was enacted into law, and they would now have only historical interest were it not that they will, in all likelihood, be presented, in one form or another, to the next Congress for action. A comparison of these programs, therefore, is pertinent in connection with the present labor situation in the United States.

The more important of the measures referred to are the following:

(1) The original Kelly bill,¹ introduced in the House of Representatives, December 17, 1918, by Representative M. Clyde Kelly, of Pennsylvania, providing for permanent employment opportunities to returned soldiers and other workers in the settlement and development of agricultural, forest, and mineral lands.

(2) The Kenyon bill,² introduced in the Senate, January 21, 1919, by Senator W. S. Kenyon, of Iowa, providing for emergent employment on public works during the period of industrial readjustment.

(3) The revised Kelly bill,³ introduced in the House, February 5, 1919, by Representative M. Clyde Kelly, of Pennsylvania, providing for emergent employment for returned soldiers and other workers on post roads and public works, and for permanent employment in the settlement and development of agricultural, forest, and mineral lands.

(4) The Taylor bill,⁴ introduced in the House, February 15, 1919, by Representative E. T. Taylor, of Colorado, providing for "the rural settlement of soldiers, sailors, and marines, and to promote the reclamation of lands" under the direction of the Secretary of the Interior.

(5) The mineral land bill,⁵ passed in a former session in a different form by both Houses and reported from conference for passage in February, 1919, providing for the sale or lease of coal, oil, and other mineral lands on the public domain.

¹ H. R. 13415.

² S. 5397.

³ H. R. 15672.

⁴ H. R. 15993.

⁵ S. 2812, introduced by Senator Thomas J. Walsh, of Montana, Aug. 20, 1917.

DEVELOPMENT POLICY OF THE SECRETARY OF LABOR.

To carry out the development policy of the Secretary of Labor the original Kelly bill, above mentioned, was introduced.

This bill (H. R. 13415) creates a "National Emergency Board for Soldier Employment," to consist of the Secretaries of Labor, Agriculture, and Interior, this board to act through a "National Director of Soldier Employment."

A "United States Construction Service" is to be organized by the board to carry out, as far as practicable, all projects provided for in the bill.

A program for general colonization and development is provided for, including agricultural settlement and permanent forest and coal-mining communities, as well as the building of roads and public improvements in connection with such development.

Provision is made for Federal and State cooperation in any of these activities.

Announcement of the Secretary's policy of developing natural resources for the purpose of "making new opportunities for employment" was first made in his annual report for 1915, as follows:¹

It will not be enough to hunt "manless jobs" for "jobless men." Any efficient public employment service of a national character must go beyond that. Unless it does, "manless jobs" giving out while "jobless men" remain, the causes of involuntary unemployment will continue to express themselves to the great prejudice of the wageworkers of the United States and consequently to the harm of all industrial interests. In my opinion, therefore, the labor-distribution work of this department should extend to some such development of the natural resources of this country as will tend to make opportunities for workers greater than demands for work and to keep them so.

This announcement was followed by the introduction in the House of Representatives by Hon. Robert Crosser, of Ohio, in February, 1916, of the so-called National colonization bill,² designed to carry out the Secretary's ideas. Public hearings on this bill were held before the House Committee on Labor in May, June, and December, 1916, at which a number of important authorities spoke for the bill. The Secretary of Labor appeared and indorsed the measure in principle.

Reference to the policy recommended by the Secretary in his 1915 report has been made in each subsequent annual report, and the most recent statement goes into the matter at some length. Foremost in the Secretary's latest recommendations is his suggestion regarding "employment for returning soldiers,"³ about which he says:

The department * * * believes that the problem of providing profitable employment for our returned soldiers is its first duty. To believe otherwise would be

¹ Third Annual Report, 1915, pp. 41-43.

² Sixth Annual Report, 1918, pp. 219, 220.

³ H. R. 11329, 64 Cong., 1st sess.

to violate the spirit of the organic act of the department. "The purpose of the Department of Labor," says this act, "shall be to foster, promote, and develop the welfare of the wage earners of the United States, to improve their working conditions, and to advance their opportunities for profitable employment."

Development of Agricultural Lands.

This "first duty" is not left with a general statement. Specific principles and methods by which it should be carried out are set forth, and these are embodied in the provisions of the Kelly bill. This program first goes into the subject of agricultural development—providing for community settlement and ready-made farms, for determining what is and what is not "agricultural land," and for security of land tenure against speculation.

COMMUNITY SETTLEMENT AND READY-MADE FARMS.

The desirability of preparing ready-made farms and of developing community units is outlined by the Secretary of Labor as follows:¹

Judging from the experience of the Australian and other countries, a vast amount of false motion can be saved by the preparation of ready-made farms and through the development of areas by means of the community unit rather than the isolated farm unit. Demonstration farms, run by the State and located at the center of the colonies, form an important feature of the Australian system. On these farms pure-bred cattle and other live stock may be raised and sold at cost to the settlers. These farms are used, too, for training new settlers under the direction of an agricultural adviser. * * *

It seems to be common opinion that community life should be required for the returned soldier. He can not be expected to settle down in a needless rural isolation. The soldier settler must be provided with modern facilities for cooperative effort. These apply to marketing, purchasing, and his other needs.

The principles here referred to by the Secretary are made applicable in section 4 of the Kelly bill.

SPECIFIC TEST FOR DETERMINING WHAT IS "AGRICULTURAL LAND."

The test stipulated by the Secretary of Labor for determining what land is truly agricultural is its capacity to render "profitable employment" for the man who does the farming. On this point he says:²

It goes without saying that no colony should be established on land which can not be profitably farmed. The specific test for such land is the estimated yearly compensation to be obtained by the settler for his own use as a result of his labor. This compensation amounts to the difference between the gross money return and all fixed expenses. The latter include interest and amortization charges for reclamation and improvements, payment of taxes and the use of land, and general running costs. If the compensation over and above these expenses amounts at least to a fair wage, then the labor of farming the land amounts to profitable employment. Otherwise, it does not.

This test is provided for in section 4 of the Kelly bill, as follows:

No land shall be allotted for settlement until, in the opinion of the board and upon the basis of expert surveys and estimates, a reasonable presumption exists that the

¹ Sixth Annual Report, 1918, pp. 143, 144.

² *Idem*, p. 144.

average yearly money return obtainable from farming the said allotment shall be sufficient to yield, in addition to the necessary yearly fixed charges for the use of land, and for reclamation, improvements, and normal running expenses, a compensation to the settler for his labor, which shall be not less than the equivalent of the local wage rate, as determined in section three; and the said charge for the use of land shall be fixed by the board so as to allow to the settler, out of estimated gross returns, not less than the compensation aforesaid.

SECURITY OF LAND TENURE AGAINST SPECULATION.

The opportunity to the individual settler of using land without paying tribute is fundamental in the department's land policy. The utilization of this opportunity requires the elimination of another opportunity—that of speculating in the right to use land. And the only practicable way of eliminating such speculation seems to be to hold the land under such control that the individual title thereto is dependent upon occupancy and use. Otherwise this title will become in the future, as it has in the past, an object of barter and commerce; and payment for rent or its equivalent over and above legitimate returns is exacted by the land owner from the land user. Such payment amounts to tribute paid for skill, or luck, in speculation; it is collected by the holder of the fee simple title.

If, then, the settler himself holds the fee title (and without encumbrance) he is secure from the tribute described. But the same device—individual fee simple—that protects the owner from paying tribute enables him to impose it upon others. There is nothing to prevent him from renting his land to another and exacting an unreasonable rental. And this is the too common practice. The system of individual fee simple is the basis of tenancy or the equivalent of tenancy. This system is general throughout the United States, and so is tenancy (or the equivalent thereof). Any colony or community settlement based on individual fee titles is doomed at the start: it is only a question of time—and no long time—when it will disintegrate into individual earldoms. The way to preserve its integrity and maintain a uniform system of individual use is for the colony itself, or the State, to hold the title and thus control the individual use.

Individual title dependent on use is a vital part of the Secretary's land policy. He makes this point clear in the following language:¹

Settlers should * * * be protected from the evils of land speculation. The liberal grants of former years to soldiers were of almost no value to the supposed beneficiaries, because of the speedy transfer to persons who were primarily interested in the resale of such lands at higher prices. Speculation and inflation are evils which it has been found possible to correct in the experience of our associated belligerents. I therefore favor the adoption of some form of tenure which will lay less stress upon titles and more upon actual use by occupants. The absolute tenure does not seem to

¹Sixth Annual Report, 1918, p. 221.

be well adapted to public colonization since it is useless to the working settler and attractive to the speculator. There are several other forms of tenure including the perpetual leasehold, better adapted for our purposes.

This vital principle of eliminating speculation is included in the Kelly bill. With respect to Federal projects it provides in section 4 as follows:

The fee simple title to all land reserved or purchased for the purposes of this act shall remain forever in the United States. Farm lands shall be allotted in areas sufficient for family use, and during such period only as the settler shall continue to reside on and use such land. Regulations for determining under varying conditions what amounts to residence and use shall be made by the national board. In case of the termination of any allotment the settler shall be reimbursed for improvements made at his own expense, the value of said improvement to be appraised by the board.

Provision is then made for payments, in lieu of taxes, by the United States to the individual State, or local government, for land thus colonized under Federal management.

With respect to cooperative projects between the Federal and State Governments, the Kelly bill provides that title shall be held in one or the other jurisdiction. Section 8 in part provides:

That the national board is hereby authorized to make written, specific cooperative agreements, in the case of any State, with any particular State official (or any State board or commission) who (or which) shall be authorized by the State, through appropriate official action, to make equally specific agreements with the national board: *Provided*, * * * That the absolute title to all land reserved or acquired, and to all permanent and fixed improvements constructed for any of the purposes aforesaid shall be retained permanently in public hands (either vested in the United States or in the particular State according as the one or the other method may be agreed upon.)

Development of Forest Communities.

The Secretary's program for "making new opportunities for employment" is not limited to the development of the country's agricultural resources; it includes also the utilization of the forest and mineral resources of the country. On the big subject of forest development the Secretary says:¹

Forest land presents another fundamental opportunity for profitable employment. Permanent forest areas, outside of farm limits, cover one-fifth of the United States, including the estimated area for farm wood lots, they will cover nearly one-fourth of the country. These lands form the basis not only of logging and saw-milling, but of the manifold woodworking industries as well. But the forest industry, in order to realize its full value as an opportunity for American workers—whether returned soldiers or otherwise—must be handled in accordance with the principles of forestry as against those of old-time lumbering; it must be placed upon a cultural instead of an exploitation basis; timber culture must replace "timber mining."

Lumbering as now generally practiced is a migratory industry; it is therefore a breeder of migratory labor and hoboism. By placing each logging unit under forestry so as to obtain therefrom a continuous timber yield, the lumber camp and the "bunk

¹Sixth Annual Report, 1918, pp. 144, 145.

house" can be converted into a forest community. The woods worker could then have a home as permanent at least as that of his fellow workers in other industries, and the so-called "wobbly" would be in process of extinction.

This change can not, of course, be accomplished all at once. But a beginning can be made in time to benefit soldiers now returning from the war. The opportunity for this beginning is offered in the 150,000,000 acres or more of our national forests. Forest management of the kind required could be carried on in some cases through the present system of "timber sales"; in other cases it has been suggested that the Government conduct its own logging operations. This policy has already been initiated by the United States forest regiments, not only in France but on our own Pacific coast where spruce has been cut for airplane stock. The problems of marketing thus arising would have to be taken up in each case. One important market will consist of the coming needs of the Government itself for vast quantities of timber.

This part of the Secretary's program is provided for in section 5 of the Kelly bill.

Development of Mining Communities.

The possibilities for the development of mining communities exist principally in the coal lands of the public domain in the western United States and in Alaska. On this point the Secretary says: ¹

Mineral land which may be utilized as an opportunity for the employment of American soldiers now returning consists for the most part of the coal fields which still remain in the public domain. Some of these are located in the Western States. The most important, however, lie in the Territory of Alaska. These Alaskan fields have been permanently reserved, part of the coal to be mined under a leasing system and part to be retained for Government use. A Government railroad has been built into the Matanuska coal fields, and these under present law can be further developed in a way to set fair labor standards in the mining industry and for those seeking employment in this northern land.

Speaking of the general resources of Alaska and of the possibilities of colonizing the Territory, the Secretary says: ²

Alaska offers, in addition to her coal resources, what may prove to be one of the best fields of opportunity for Americans of a pioneering spirit. And this spirit will not be absent among the men returning from the front. Some 65,000,000 acres of potential agricultural and grazing land await development in the several main valleys of the Territory. The Susitna Valley will be opened, probably next year, with the completion of the Government line of railroad from Seward into the interior. In area, latitude, and climate Alaska is comparable with Scandinavia, and almost all of the land to be settled is still in the public domain. An opportunity might therefore be offered our Government in this Territory to establish a modern colonization policy.

Under present law the coal lands of the public domain in the Western States are not operated under lease, but are for sale at their appraised value. In Alaska, however, under the law of October 20, 1914, title to the coal lands is reserved in the United States and provision is made for operating such lands either through lease or through direct Government operation. The Kelly bill, in section 6, makes provision for utilizing the coal-leasing system in Alaska for establishing a series of mining communities.

¹ Sixth Annual Report, 1918, p. 145.

² *Idem*, pp. 145, 146.

A public hearing on the Kelly bill was held on January 17, 1919, before the House Committee on Labor. The Secretary of Labor was unable to attend in person, but sent the Assistant Secretary, Mr. Louis F. Post, to represent him and to indorse in principle the provisions of the measure.

THE KENYON BILL—AN EMERGENCY EMPLOYMENT MEASURE.

The Kenyon bill (S. 5397), to provide for emergent employment on public works during the period of industrial readjustment, creates a "United States Emergency Public Works Board," consisting of officers from certain executive departments, together with two citizens of the United States to be appointed by the President.

The sum of \$100,000,000 is appropriated to the board to enable Federal agencies to proceed with public work for which the existing appropriation is insufficient, in cases in which the Secretary of Labor certifies that there exists unemployment which would be affected by such public work.

The War Finance Corporation is authorized to advance to State governments up to \$300,000,000 at any one time to enable any State (or any political subdivision thereof) to carry on necessary public work in places where unemployment may exist.

The Federal public works here referred to are those already authorized by Congress, and Senator Kenyon proposed that the appropriations for this work, up to \$100,000,000, should be made immediately so as to put the money into use and thereby alleviate unemployment conditions which were becoming daily more acute. The other main provision of the bill is to turn \$300,000,000 over to State and municipal authorities to spend on local public works in such manner as they shall elect, provided only that the money be returned to the Federal Treasury with interest.

The program here proposed makes no attempt to provide for permanent opportunities for employment; it is a measure designed to relieve a temporary or recurrent condition of unemployment.

THE REVISED KELLY BILL—A COMPLETE EMPLOYMENT MEASURE.

On account of the radical changes occurring in the employment situation during the congressional session, Representative Kelly decided to remodel his bill to meet the new conditions. During the month of December, 1918, a net shortage of labor in the country turned into a net surplus. On January 30, Secretary Wilson, appearing before a joint meeting of the Labor Committees of the Senate and House, pointed out that a permanent land development policy should be adopted, but that the inauguration of such a policy could not be started in time to meet the present needs for employment. Consequently work on roads and public improvements should be started in the meantime.

Two problems in employment were thus presented: (1) That of relieving an acute condition (provided for in the Kenyon bill); (2) that of making permanent opportunities (provided for in the Kelly bill). The latter measure was accordingly revised so as to meet both problems, and was introduced in the House on February 5.

The revised bill (H. R. 15672) appropriates \$100,000,000 to the President to carry out the provisions of the act, this to be done through a "Director of Public Construction" to be appointed by the President, and through a "National Board of Public Construction," to consist of the President (or the director) as chairman, and of the Secretaries of Labor, Agriculture, Interior, War, and the Postmaster General.

The President (or the director) is to organize a "United States Construction Service" to carry out the projects provided for in the act.

A Federal post road program is to be carried out "in accordance with existing plans of the Post Office Department, or otherwise," and in connection therewith a motor transport service between producer and consumer will be established. Authorized public works are also to be extended, and the housing projects of the Emergency Fleet Corporation and of the United States Housing Corporation are to be carried out by the board.

In addition to this immediate work, provision is made for permanent employment through a series of experiments in establishing, in connection with the post roads, or otherwise, one or more actual communities on agricultural, forest, and mineral lands.

Federal, State, and municipal cooperation is provided for with regard to these activities.

The Immediate Program.

The new Kelly bill provides for the equivalent of everything contained in the Kenyon bill, including the immediate extension of authorized public works. It provides also for cooperation with the States and municipalities and sets forth the manner in which the work shall be carried on.

In addition to this the bill provides for the immediate prosecution of a project for building post roads, which has been carefully worked out in the Post Office Department. This project calls for the construction and maintenance of 15,000 miles of roads extending throughout the country, on which, it is estimated, many thousands of men could be started at work within a short time. It is wholly a Federal program and would not have to wait upon State action.

In connection with this project for extending new roads, provision is made for utilizing roads already built by establishing thereon motor transport postal routes. About 36 of these routes have already been

established. A great saving is effected if small parcels are carried short distances in motor trucks instead of being sent by rail. But the important feature of this service is that it provides a ready access between the producer on the farm and the consumer in the city. The utilization of this motor truck service for marketing purposes has already been started. Trucks are at work carrying farm provisions of various kinds from the country districts in Maryland, Pennsylvania, and Virginia into the city of Washington. In this city at the Park View schoolhouse, which is also a postal station, farm produce is delivered from the various rural communities and distributed at cost to the local city consumers.

This system could be indefinitely extended throughout the country wherever good post roads have been made. The War Department has several thousand motor trucks which could be used for this service and many of these have been turned over to the Post Office Department for this purpose. Under the terms of the Kelly bill these trucks and all other war equipment no longer suitable for the War Department would be turned over to the President for carrying out the various projects provided for. By a simple extension of this motor-truck service many men could be set at work immediately and the unemployment situation could thereby be instantly relieved. In addition a start could be made upon a permanent policy for reducing the high cost of living.

A road-building project was proposed in an amendment to the recent Post Office bill, and was adopted by Congress in the last session. A series of appropriations were made for rural post roads, these to be constructed in cooperation with the several States under the terms of the Bankhead road bill of July 11, 1916. A total of \$200,000,000 was thus appropriated, to be spent during the next three years. The actual spending of this money, however, will await action by the respective State authorities, and it can not be made available in sufficient amount and in sufficient time to be of much immediate service in the present unemployment emergency. Neither does the employment herein provided lead to any permanency for the workers involved.

The Permanent Program.

The permanent program of the revised bill comprises the essentials of the general program of the original bill. The President, through the director and the board, is authorized to establish upon an experimental basis one or more actual farming communities in parts of the country having good marketing facilities. As far as possible these would be placed along the motor-truck postal routes already established. The bill provides also for establishing one or more actual forest communities within the National Forests, and one or

more actual mining communities on the coal lands of the public domain.

The construction work involved in any of these projects would be carried on, as in the original bill, by a "United States Construction Service." In this service men desiring work would be able to enroll immediately, though on an absolutely voluntary basis. Nothing of militarism is contemplated in this service. Its object is to be a reservoir in times of labor surplus, and a diluter in times of labor shortage. In periods of unemployment, as now, the service would be used in "buffer employment" for carrying on the various kinds of public works. In periods of labor shortage, such as existed a year ago, dilution of labor could take place through this service so as to distribute the available skilled men in such manner as to be most effective.

Through the agency of such a construction service as here provided for the immediate program for employment could tie up intimately with the permanent one. A "job" on the roads could be made to lead directly to a living on the land. Farm building would naturally follow road building. "Buffer" work could broaden into permanent work, and a truly effective land policy be thereby initiated.

THE TAYLOR BILL FOR RECLAIMING AND IMPROVING FARM LANDS.

The Taylor bill (H. R. 15993) provides for employment and the securing of rural homes for those honorably discharged from the armed forces of the United States by authorizing the Secretary of the Interior to acquire property (by condemnation and otherwise), to withdraw and utilize public lands, to carry on various kinds of reclamation work and farm improvement, to advance short-term loans to settlers, to subdivide and dispose of land to ex-service men "upon such terms and conditions as he may deem proper, and subject to the terms of this act," and to make general regulations for the settlement of such ex-service men on the lands thus acquired and improved.

The Secretary "may cooperate with any State irrigation or drainage district, or municipal corporation, in connection with any project located therein upon such terms as may be agreed upon."

All moneys expended "shall be fully reimbursed to the United States, the State, or others entitled thereto." Deferred payment shall be amortized within not exceeding 45 years, with interest at $4\frac{1}{2}$ per cent.

Lands may be "dedicated for schools, churches, and other public purposes, and town sites may be developed and opened for sale on such terms * * * as the Secretary may determine."

Ex-service men, so far as practicable, shall be preferred in the investigation and construction of projects provided for.

The Secretary of War is authorized to transfer to the Secretary of the Interior any war material useful for reclamation purposes and no longer useful for Army purposes.

The sum of \$100,000,000 is authorized to be appropriated to carry into effect the provisions of the act.

Although the Taylor bill gives sufficient authority to allow of the preparation of ready-made farms, no provision seems to be made for community organization with respect either to marketing or other essential activities. Provision is made for schools, churches, and town sites, but nothing suggests community form of development or cooperative colonization.

No provision is made for land classification nor for any expert means of distinguishing profitable agricultural from nonagricultural land. This leaves the interest of the settler worker unguarded.

Under the Taylor bill lands withdrawn or acquired may be disposed of by the Secretary of the Interior "upon such terms and conditions as he may deem proper, and subject to the terms of this act." Under this provision an absolute fee-simple title could pass and the individual thus be exposed to the evils of speculation in the way which has been described. Under the act land can be acquired by condemnation. Hence the title could be taken away from one owner and turned over to another.

THE MINERAL LAND BILL.

The mineral land bill (S. 2812) provides for disposing of coal, oil, and other mineral lands on the public domain. Three classes of minerals are involved: (1) Coal; (2) oil, oil shale, and gas; (3) phosphate and sodium.

Since all three of these affect industrial processes, provisions regarding their disposal affect the labor situation. The coal lands, however, are more directly related than are the other classes of lands to the immediate problems of the Department of Labor as to present and prospective employment. Comment will, therefore, be limited in this article to the coal-land provisions of the bill.

Need of Controlling Labor Conditions in the Coal Industry.

Along with the "timber wolf" of the logging camp the underground worker of the mining camp deserves the special and serious attention of those whose duty it is to advance the welfare of American wage earners. This is recognized in the department's policy with respect to the use of the forest and the mineral resources. In the great extractive industries of lumbering and mining the community must replace the "camp" if the citizen with a family is to replace the "bum without a blanket." In none of the industries is it more important to standardize labor conditions than in these.

Whether or not conditions in the mining industry are sufficiently realized by the public, they are understood by the workers themselves and by some at least of the operators. Mr. Francis S. Peabody, of Illinois, who was chairman of the committee on coal production of the Council of National Defense, in speaking at a hearing on this mineral land bill before the Senate Committee on Public Lands, on June 13, 1917, said:

We have the cheapest production of coal in the world * * * and have used it like drunken men. We have wasted our substance by taking the nearest coal because we could produce it cheapest. We have had no thought of conservation of life. We kill three men in this country for every one man killed on the other side, with more dangerous mining conditions on the other side.

Methods of Handling Coal Lands on the Public Domain.

The original method of dealing with coal lands on the public domain consisted of outright sales of such lands at prices per acre not lower than the minimum prescribed in the law. This method applied both in the United States and in Alaska. The consequent tendency was for lands to be sold at or near the minimum value rather than at their true value. The result was speculation and attendant ills.

A check was placed on this old-time method. James R. Garfield, Secretary of the Interior from 1906 to 1909, introduced a new method of handling coal lands by selling them at their actual appraised value. He had the coal lands of the public domain classified by the Geological Survey and their actual value appraised upon the basis of the estimated tonnage of coal contained in such lands. Areas like those which formerly sold at the minimum price per acre of \$10 or \$20 were often sold for \$500 per acre. This method has been used ever since. The result has been the reduction, if not the prevention, of speculation in coal lands on the public domain.

But this Garfield system was unsatisfactory from two points of view: The conservationists considered it a makeshift. They maintained that the method of alienating the fee-simple title to natural resources of this kind was fundamentally wrong. Instead of selling the lands they should be utilized under a leasing system in which the ultimate control of such lands, and of the industry to be conducted thereon, should be in the Government itself. Instead of selling the lands, even upon the basis of an appraisal, the product of such land, namely, the mineral itself, should be disposed of by means of a royalty of so much per ton. Only in this way could the true, natural values be collected for the public benefit. Only in this way, they maintained, could public control be exercised over the industry involved. The speculating interests, on the other hand, desired a reversion to the pre-Garfield system of getting absolute control through fee simple and of buying the lands at or near the minimum price required in the law.

These contending forces fought bitterly for nearly a decade. Early in this fight, in 1907, the coal lands in Alaska—those without claims—were withdrawn from entry by presidential proclamation. This was done in order to give Congress an opportunity to settle upon some permanent policy with regard to their utilization. Previous to this withdrawal, and thereafter, the attempt was made to get a monopoly control of Alaskan coal through certain valuable holdings. This attempt, however, was exposed and defeated. And the issues involved constituted an important feature of the so-called Ballinger-Pinchot controversy, which held national attention 10 years ago.

The main part of the fight here referred to took place in the Taft administration. But no action was taken until early in the present administration when the first coal-land law embodying a leasing system was passed by Congress. This is the present Alaskan coal law signed by President Wilson on October 20, 1914.

The Alaskan Coal Leasing Law, 1914.

Under this law the President is directed to reserve—not only from sale but lease—certain coal lands for Government and public purposes. These lands “may be mined under the direction of the President when in his opinion the mining of such coal in such reserved areas, under the direction of the President, becomes necessary by reason of an insufficient supply of coal at a reasonable price” for the Government railroads and other works, for the Navy and national protection, and for “relief from monopoly or oppressive conditions.” These reserved lands shall not exceed 12 square miles in the Matanuska coal field, nor 8 square miles in the Bering River field, nor one-half of the coal land area elsewhere in the Territory.

Aside from these lands the Secretary of the Interior is directed to lease any or all other coal lands in blocks, to any one lessee, not to exceed 4 square miles in area. A royalty shall be charged on a tonnage basis and an annual rental (to be credited against the royalties as they accrue in any one year) of \$0.25 per acre for the first year, \$0.50 per acre per annum for the next four years, and \$1 per acre each year thereafter. In this way the full natural value of the coal deposits is obtainable to the Government, and a method provided to prevent the holding of lands out of use. The values collected are to be spent for the benefit of the Territory of Alaska.

Coal for local and domestic use is provided for free of charge under certain reasonable limitations.

Definite labor standards are stipulated, including the eight-hour day for underground workers and provision for their safety while working.

The Alaskan coal-land law is the first constructive measure, on this particular matter, to be passed by Congress. It has been in operation

a little more than four years. During this time a European war has been waging, work upon the Alaskan railroad has had to be restricted, and Alaska in general has had to be considered as "non-essential territory." It is stated by the Department of the Interior that only three coal-land leases were in force at the beginning of the present calendar year, two of these being in the Matanuska field and the other in the Bering River field.

The obvious need for development in Alaska is to get a market and a population. The Alaskan railroad is not yet completed between Fairbanks and the coast but this road will probably be finished within the next year or two. Upon its completion a big opportunity will be afforded for the growth of Alaska along modern lines. The comments of the Secretary of Labor on this opportunity have already been given.

Some definite and aggressive policy for the development of this distant Territory seems important both for national and international purposes. Workers form the bulk of every population, and workers will not go to far-away Alaska unless favorable working conditions are going to be provided for them when they get there. This requires that the natural resources upon which the workers depend for employment shall be controlled not by speculators but by the Government itself. The present Alaskan coal-leasing law, by holding control in Government hands, is basic in carrying out the permanent employment policy of the Secretary of Labor regarding natural resources.

This policy could be carried out on coal lands in western United States, as well as in Alaska, if the leasing system were made to apply there. But such an opportunity would be effectively eliminated were the coal-land provisions of the mineral land bill to become law.

Coal-land Provisions of the Mineral Land Bill (S. 2312).

The coal-land provisions of the mineral land bill are contained in sections 2 to 8, inclusive.

Section 2 provides that any qualified person shall "have the right to enter by legal subdivisions any quantity of vacant coal lands" on the public domain in the United States outside of Alaska upon payment of not less than \$10 per acre for lands situated more than 15 miles from a completed railroad, and \$20 per acre for lands within 15 miles from a completed railroad. The Secretary of the Interior "shall offer such lands and award the same through advertisement and competitive bidding, reserving the right to reject any and all bids which he may deem to be unfair." Development work aggregating not less than \$8 per acre per annum is required for two years, at the end of which period patent shall issue for such lands.

Section 3 provides that the "Secretary of the Interior is authorized to, and upon the petition of any qualified applicant shall, divide any of the coal lands * * * owned by the United States outside of the Territory of Alaska, unless previously entered under section 2 of this act, into leasing tracts of 40 acres each, or multiples thereof," up to an area of 4 square miles (2,560 acres).

The next five sections (4 to 8, inclusive) provide for leasing coal lands under the same conditions substantially as those provided for in the Alaskan coal-land law except that the lease is indeterminate instead of being limited to 50 years.

Hence six out of the seven sections of the act which deal with coal lands consist of leasing provisions, these being taken almost word for word from the Alaskan coal-land law. The measure is therefore put forward as a "leasing bill." The leasing provisions, however, would in all likelihood never be actually carried out. They apply to lands "*unless previously entered under section 2 of this act.*" And since section 2 provides in substance for the sale of land in accordance with the methods in vogue before the Garfield days, the chances are that most if not all of the more valuable areas would be "previously entered" under the inviting sale terms of the said section. Under these terms coal lands would be sold on an acreage basis, and without official tonnage estimates, whereas now—under the method started by Garfield—they are sold on a tonnage basis, officially estimated.

The enactment of this measure, by alienating control of the mineral lands, would prevent the application of the Secretary of Labor's policy for developing these lands as an opportunity for the permanent employment of returned soldiers and other workers. It would eliminate, on the lands to which it applied, any such effective control by the Government as that provided in the Alaskan coal-leasing law for stabilizing labor conditions in the coal-mining industry.

Attempt to Make Bill Applicable to Alaska.

The mineral-land bill was passed in a previous session by both Houses of Congress, though in somewhat different form in each House. It therefore was submitted to conferees appointed by each House to be adjusted, and while in conference the attempt was made to make the measure applicable to Alaska. This would have repealed the present Alaskan coal-leasing law and would have undone the valuable work accomplished, during many years, in developing a constructive leasing program.

The bill as passed by the House of Representatives carefully confined the coal provisions of the act to public lands "outside of the Territory of Alaska." The Senate bill contained this same phrase as to all coal-leasing provisions, although applying the sale provisions to "any State or Territory of the Union." Based on these wordings

the conferees made the new bill, both as to the leasing and the sale features, apply to all public lands, "including the Territory of Alaska." In this manner the conferees reshaped a measure, designed by both Houses to have no relation whatever with the Alaskan coal-leasing system, in such a way as to effect the abolition of this system.

The reversal thus made was discovered in the Senate and the bill was sent back to conference on a point of order. Alaska was then eliminated from the coal provisions of the bill, and the conference report thus amended was presented again to each House. The bill in its new form passed the House of Representatives but did not come to a vote in the Senate. Fortunately, therefore, the opportunity still remains both in Alaska and in the Western States for carrying into effect the coal-land development policy of the Secretary of Labor.

SOME OBVIOUS POINTS SOMETIMES FORGOTTEN.

In the various programs which have been suggested for dealing with the employment of returned soldiers and other workers certain obvious points are sometimes forgotten which, for practical reasons, should be mentioned.

Mere "Jobs" not Enough.

The man who has been dislocated from industry by the war has the right to demand that he be relocated in industry after the war. And this means something more than getting the "handout" of a mere job, whether on public or on private work. He should have the opportunity of making a permanent living, of establishing a family, and of developing a career in some steady occupation. Hence the need of a comprehensive industrial development, based on the community unit, such as the Secretary of Labor has suggested.

Opportunity, not Labor, should be Increased.

The Secretary has emphasized the absurdity of creating work for work's sake. No problem in labor is solved by the mere making of labor. To move a pile of rocks from one lot to another and then back again is no solution of unemployment. On the contrary, labor should be saved. To conserve natural resources is useful only as it conserves human energy. At no time is this precious energy to be thrown away—least of all at this time when the man power of the world has been reduced by tens of millions.

Efficiency means saving labor. This is done by improved machines or improved methods. Improved processes of industry may be utilized to reduce the time or the effort of doing a given piece of work. And if such processes are not thus utilized they do not save labor. Where increase of efficiency is used to decrease hours of labor, without lessened pay, the result is a double advantage. First, the toiling time is shortened and the leisure time lengthened; second, unem-

ployment (or the danger thereof) is thereby reduced. How far the shortening of the day's work should go should depend of course upon how much of the world's work is truly essential. But one thing seems certain, the shortening process should continue long enough at least to absorb the involuntary unemployed.

It is evident that there is in this country, at this time, full need of a vast amount of development work. Here, then, is an opportunity for legitimate employment. This opportunity should be made available. But in so doing the principle of saving labor should be maintained. Otherwise no true opportunity is created. And so long as unemployment continues, increase of efficiency should be made, as far as practicable, to reduce the working day and absorb the labor surplus. Opportunity for work, not work itself, should be increased.

USE OF WATER RESOURCES AS A LABOR-SAVING POLICY.

The water resources here considered comprise the rivers and streams of the country. Stream flow is useful for four main productive purposes—sanitation, irrigation, navigation, and power. The potential utility, for these several purposes, of the country's stream flow has been thus far only meagerly developed. Much of this flow expends itself each year in destructive flood waves. The storage and control of this surplus water and its use for the above named purposes could, under proper direction, be made to save untold labor effort and human energy.

In the use of water for sanitation and allied purposes, in household and city, the labor saved in the modern system of "running water" over the primitive system of "hauling water" needs only to be mentioned. Through the process of irrigation, where fertile soil can get water in the time and quantity needed, the product of the farmer's labor on an area is far beyond that where this process is lacking. Transportation of a given tonnage by water as well known requires far less labor, both in original construction and in maintenance, than that by rail; and where speed is not essential, the waterway should as far as possible be made to relieve the railway.

Water power is the rival of coal in the generation of electrical energy for the latter's varied uses. It bids fair to be the main potential source for lighting, heating, and mechanical industry in the household, the farm, and the factory. The supply of coal is definitely limited; the power in a stream goes on forever. The labor required in mining coal is arduous and dangerous. The labor required in utilizing the stream is in large measure limited to that of original construction. By substituting wherever possible the "white coal" of falling water for the black coal from the underground, the

latter is left for the smelting and other uses for which it alone will suffice, and a vast energy, requiring in the long run almost insignificant labor effort, can be placed at the service of mankind.

The horsepower capable of being developed under present conditions in the rivers and streams of the United States is estimated to be in the neighborhood of 60,000,000. This power could be greatly increased through the storage of flood waters. Thus far only about 8,000,000 horsepower have been made actually available. A project to develop this unused latent power would require a vast amount of construction on reservoirs and other works. This would provide many opportunities for employment and yet would result ultimately in a great saving of human labor.

There is grave danger, however, that a large part, if not the greater part, of the labor conservation thus made possible would be lost unless the control of this great public utility be kept in public hands. Fortunately as yet most of the country's potential water power remains in public hands; its control is vested in the United States Government. But if the Government were divested of this control the opportunity for proper public development would be practically lost.

Comprehensive plans for the public development of our waters have been made from time to time by the Interior, Agricultural, and War Departments, and the Kelly bill provides for extending and coordinating the plans here started.

TO PROVIDE ALTERNATIVE EMPLOYMENT.

"Some such development of the natural resources of this country as will tend to make opportunities for workers greater than demands for work"—this is the suggestion of the Secretary of Labor, made in 1915, for making new opportunities for employment. By making more jobs than men we relieve the pressure of men on jobs. This would be done by offering alternative employment in a comprehensive construction program for developing the country's natural resources. This program would be carried out, under Representative Kelly's proposed legislation, through a public "Construction Service" in which proper standards of labor would be maintained. By no one single stroke, perhaps, could so much be done to stimulate healthy labor standards in American industry generally.

The other programs suggested in Congress are substitutes for different features of this Kelly labor program. The Kenyon bill would provide for immediate employment. The Kelly plan would provide for immediate employment and ultimately for permanent employment. The Taylor bill would place men on waste lands, but makes no specific provision for community life, for securing

profitable farm land, nor for retaining title as a means of protecting the settler against speculation. The Kelly plan makes specific provision for each of these matters. The mineral-land bill would eliminate the opportunity, provided for in the Kelly plan, to develop the coal industry on the public domain under public control and proper labor standards.

Here, then, in the Kelly proposal is a comprehensive labor policy, the result of three years' work by the Labor Department. Along with it are the various measures which have been described. Congress thus far has taken no action affecting the employment of returned soldiers and workers. Neither the department's program nor any substitute therefor has been adopted. What these unemployed men are going to do about it remains to be seen. But whatever they do their rights are clear. The various plans submitted to the last Congress will probably be submitted to the next. The choice by Congress of an inadequate or a backward-looking policy in this matter may well prove worse than no action at all. The imperative need is a program that goes to the roots of this problem—not a makeshift that irritates its surface.

REVIEW OF THE ACTIVITIES OF THE UNITED STATES EMPLOYMENT SERVICE.¹

One of the results of the entrance of the United States into the war has been the development of a nation-wide public Employment Service. When the United States entered the war the only agencies in this country which could be utilized to marshal the industrial forces were the small employment service maintained by the Federal Department of Labor as a part of its Immigration Bureau, and several State employment systems.

During the first five months of our participation in the world conflict the recruiting of the industrial army—the manning of the growing shipyards, munition plants, and other war projects—was a haphazard affair. War industries stole labor from one another. Plants took on 500 men on Monday morning only to lose 400 the next Saturday. Some manufacturing districts were crippled as to output because of labor shortage, while others had a surplus of workers. Thus was forced upon the country general recognition of the urgent necessity for a central agency of the Government which would assemble and distribute the labor power of the country and stabilize employment conditions.

Opportunity was given for the development of such a central agency when on October 6, 1917, Congress appropriated \$250,000 for it. Later the President gave \$875,000 more for the purpose from his national security and defense fund. Early in January, 1918, the Secretary of Labor separated the Employment Service from the Bureau of Immigration and made it a separate arm of the Department of Labor.

The task confronting the Employment Service was twofold. It had to build up a network of employment offices and recruiting agents throughout the country and a clearance system to connect shortage and surplus, and at the same time supply hundreds of thousands of men monthly to war industries. This had to be accomplished with a minimum of disturbance to the industrial field and to the people themselves. In a few months approximately two and a half millions of men were drawn from their peace occupations and established in war work.

¹ This account of the work of the Employment Service is compiled from articles appearing in the United States Employment Service Bulletin. Since this article was prepared the Employment Service has been compelled to release most of its personnel, thereby greatly limiting its activities, owing to failure of Congress to provide funds for carrying on the work.

The following table gives a summary of the 14 months' activity of the United States Employment Service:

SUMMARY OF 14 MONTHS' ACTIVITIES OF THE UNITED STATES EMPLOYMENT SERVICE.

Year and month.	Registra- tions.	Help wanted.	Referred.	Placed.
1918.				
January	82,253	89,002	62,642	51,183
February	92,452	92,594	70,369	58,844
March	144,156	177,831	118,079	100,446
April	195,578	320,328	171,306	149,415
May	206,181	328,587	179,821	156,284
June	246,564	394,395	221,946	192,798
July	282,294	484,033	250,152	217,291
August	555,505	1,227,705	500,510	395,530
September	531,226	1,476,282	513,662	362,696
October	594,737	1,588,975	606,672	455,931
November	744,712	1,724,943	748,934	558,469
December	549,593	1,024,330	525,486	392,934
1919.				
January	587,306	730,881	514,436	372,186
February	510,952	504,114	422,541	212,743
Total	5,323,509	10,164,000	4,906,556	3,776,750

PUBLIC SERVICE RESERVE.

During the war an essential part of the work of the Employment Service, that of finding men for war industries, was performed by the Public Service Reserve.

This division, with 15,000 volunteer enrollment agents, has furnished thousands of men—engineers, technical experts, and the like—to the Army, Navy, and Government departments, and even to the Emergency Fleet Corporation.

Among the various services performed by the Public Service Reserve might be mentioned the enlistment of 1,500 motor mechanics for the Aviation Service; the submission for enlistment of the names of 4,500 men for the railways, of 470 for the Tank Corps, and of 472 for tower men for the Navy. Altogether the reserve registered and indexed for service nearly half a million men, skilled and unskilled.

BOYS' WORKING RESERVE.

The Boys' Working Reserve, corresponding, among boys from 16 to 21, to the Public Service Reserve, early became a vital factor in food-crop production. This branch of the service concerned itself mainly with the mobilization and training of boys 16 to 21 years of age, and placing them in essential occupations, principally on farms. Central farm-training camps were established in various States, and in these camps, under proper supervision and moral influences, thousands of uniformed boys received intensive training in agriculture. From these central camps they were sent out to smaller camps whence they were taken each morning by farmers who had need of their services. It is a matter of record that many crops doomed to

disaster from lack of labor were saved by the boys so organized and trained, and in one instance the entire beet crop of a State was saved by them. Reports from various directors show that more than 95 per cent of the boys so placed on farms proved themselves efficient.

FARM SERVICE DIVISION.

Another division that had to do with the food production of the country is the Farm Service Division. By this unit, conditions were studied at first hand, needs diagnosed, plans prepared, and cooperation with other divisions touching farm problems was sought. The result was a system through whose operations the wheat crops of the West and Middle West were saved at a time when they were in peril of almost total loss. Preparations for the wheat drive began early last April with the establishment of employment offices in Oklahoma, Kansas, Nebraska, the Dakotas, Minnesota, Iowa, and Missouri, to which later were added temporary offices in these States to assist in the harvest work. Daily reports kept the assistant director informed as to conditions. A land army of nearly 10,000 men was built up, and the wheat crop was saved. In this drive the Employment Service had the cooperation of newspapers, motion-picture manufacturers, the National Grange, and rural telephone companies. The Postmaster General placed at the service of the Employment Service the cooperation of 98,000 third and fourth class postmasters and rural carriers.

CENTRALIZATION OF LABOR RECRUITMENT.

As the work of the Employment Service progressed the necessity of centralizing all recruiting of industrial labor became apparent, and the War Labor Policies Board decided that such recruiting should be done through or in accordance with methods authorized by the United States Employment Service. In June was begun the organization of State advisory boards, community labor boards, and State organization committees, which brought into practical cooperation employers, employees, and the United States Employment Service, for the purpose of recruiting unskilled labor for war work. It was also a part of the plan to extend the machinery of the service to all parts of the United States.

This necessitated a readjustment of the Employment Service, consisting principally of the centering of the responsibility for field organization in the Federal directors of employment for the States; the institution of uniform methods of office operation; and the readjustment of the work of the director general's office in Washington into five divisions, each in charge of a director.

FINDING EMPLOYMENT FOR RETURNED SOLDIERS AND WAR WORKERS.

With the signing of the armistice, on November 11, two new problems arose: First, that of returning men to their former or to similar industries; second, that of finding suitable jobs for men of the Army and Navy.

At a conference held in Washington on December 5, 1918, by a plan of cooperative action, the national and local machinery of the national welfare organizations was linked with the United States Employment Service. By this action thousands of agencies, such as the local units of the Council of National Defense, the 10,000 home service committees of the Red Cross, and tens of thousands of churches, social, civic, and other bodies, were brought to the aid of the Federal Employment Service.

Up to the present approximately 2,000 placement bureaus for returning soldiers and sailors have been established by the Employment Service and cooperating welfare organizations in towns and cities throughout the country. In addition the Employment Service has a qualified representative stationed at each demobilization camp. Twenty-four hours before the men are discharged they are taken to the employment office and a record is made of each man.

They are then classified into groups, and each man is questioned as to the kind of work he desires and is best fitted for. He is then furnished a card, directing him to some "opportunity" open, to the employment office in his home city, or to one of the 2,000 labor community boards which are assisting the Employment Service in the placement of the returned soldier and sailor.

If the man is sent to the United States employment office duplicate cards are made out, one copy of which is given to him, the other being sent to his home office, with a letter asking that he be placed in his line of work. These cards are sent out a day or so before the man is discharged, so that the employment office will be able to place him by the time he arrives or shortly thereafter. Follow-up cards are used and efforts on the part of the Employment Service to place the man do not stop until he is in employment.

ACTIVITY OF THE DIVISION OF OPERATIONS.

But aside from meeting the present emergency of replacing the Nation's fighters and war workers in industry, commerce, and agriculture, and serving as one of the chief preventives of widespread unemployment, the Employment Service has undertaken since the signing of the armistice several lines of work centered in its Division of Operations, which will mean a more efficient America in the future.

The junior section is concerned with giving vocational guidance to boys and girls between 16 and 21. Its field organization is working in cooperation with State, county, and municipal authorities.

A professional and special section with two zone offices, one in Chicago and the other in New York, and numerous offices through the States under the Federal directors, has been created to secure employment for the civilians and the discharged personnel of the Army and Navy possessing special qualifications. A total of 2,600 civilians, Army and Navy applicants, were placed during the month of January by this branch of the Division of Operations. A special branch of this section takes care of the placement of professional women.

The clearance section has for its duty the reallocation of skilled and unskilled labor to peace-time industries.

The mining section has for its function the handling of matters incident to employment in mines.

One of the most interesting divisions of the service is the Handicap Section, which looks after the placement of the aged and decrepit, who have heretofore been dependent on public charity and philanthropic institutions for their sustenance, in positions where they may earn their own livelihood.

One highly important work which the Employment Service has been doing since the end of the war, and which if made permanent will prove of inestimable value to the country, is the gathering of information as to the changing labor conditions and the conditions of surplus or shortage by trades in the various industrial centers in the country. It is this information, gathered weekly by the community labor boards and the Employment Service, that the War Department has been using as a guide in the cancellation of contracts.

WORK OF THE WOMAN'S DIVISION.

It was early recognized that the successful carrying on of the work of recruiting women would necessitate the creation of a national organization. Accordingly, on January 3, 1918, a woman's division was created as a subsidiary branch of the United States Employment Service.

This division has established 195 bureaus, all working in connection with the 748 United States employment offices; and in the period from its creation through the month of January, 1919, a total of 549,440 women were recruited.

A new section has been established to take charge of finding jobs for the large number of women who will be thrown out of employment through a decrease in work in some of the Government departments in Washington.

Following is a list of placements of women, month by month, during the 14 months, January, 1918, to February, 1919, showing a total of 594,440. Contrary to statistics for other phases of the Em-

ployment Service, all of which have shown, in any given vocation, the largest number of placements during the month of November, it will be seen from the following figures that the largest number of placements of women occurred in September, 1918, when 95,046 women were placed:

January, 1918.....	9,668
February, 1918.....	8,547
March, 1918.....	11,621
April, 1918.....	17,442
May, 1918.....	22,344
June, 1918.....	19,126
July, 1918.....	29,296
August, 1918.....	52,127
September, 1918.....	95,046
October, 1918.....	65,972
November, 1918.....	81,958
December, 1918.....	57,629
January, 1919.....	64,018
February, 1919.....	59,646
Total.....	594,440

RECOMMENDATIONS OF CALIFORNIA JOINT LEGISLATIVE COMMITTEE ON UNEMPLOYMENT.

Reference was made in the March issue of the MONTHLY LABOR REVIEW (p. 56) to the appointment by the Legislature of California of a joint legislative committee to investigate the condition of unemployment in the State. This committee submitted its report to the legislature on March 4, and made certain definite recommendations which it is believed, if carried out by the State government, will materially relieve the unemployment situation. Somewhat abbreviated the recommendations of the committee are as follows:¹

1. The committee found the seasonal labor problem * * * an annually recurring problem in this State and one of general public importance, especially in the rural districts. Some seasons it is more intense than others.

The committee * * * respectfully suggests that the governor call upon the University of California, the State bureau of labor statistics, the immigration and housing commission and other State departments to make a thorough investigation of the seasonal labor conditions, in order that an adequate plan may be devised for stabilizing the labor demand throughout the year.

2. Your committee believes that the great body of young men which has been removed from the industrial life of our nation should be given a reasonable period in which to accomplish its readjustment without being brought into direct competition with the labor of countries whose standards of living are so far below those to which our young men have a right to aspire, and to this end your committee recommends that the legislature memorialize the Congress of the United States to restrict immigration for a period of years, in order that sufficient time may elapse for the Americanization of certain elements of our population.

¹ Assembly Daily Journal, California Legislature, Mar. 4, 1919 (pp. 11, 12).

3. It is reasonable to suppose that on account of the small pay which the soldier receives and the considerable amount thereof devoted to allotments, insurance, the purchasing of Liberty bonds, etc., many of our returning soldiers find themselves embarrassingly short of funds upon their discharge, and therefore your committee recommends that the legislature memorialize Congress to grant to each soldier one month's furlough pay with soldier's allowance for the first six months of service thereafter, the same to be paid to the soldier immediately upon muster out from Federal service as part of his final statement. * * *

4. Many soldiers are mustered out at some distance from their home locality. This tends to a congestion at points where demobilization takes place, and causes hardship on the part of the men individually. Your committee therefore recommends that the legislature urge the War Department to return the soldier to the locality from which he was inducted into service for demobilization, thereby giving him the opportunity to make an industrial place for himself under conditions with which he is familiar.

5. * * * The development and construction work on the part of the State would set a salutary example to private enterprise and furnish an opportunity for the employment of many men. Also pave the way for the development of the State's natural resources. Soldiers and sailors should be given a preference in employment on all State construction and development work. Therefore your committee urges the pursuance of as vigorous a policy of State construction work at this time as the State finances will permit.

6. * * * Therefore your committee urges the immediate construction of all public buildings for which bond issues have been authorized.

7. It is indisputable that the development of the State's resources requires new highways. * * * The committee urges the immediate commencing of highway construction, and recommends that the \$3,000,000 provided for by the State bonds be used for initiating this work with a minimum contribution from the counties, but that it be equitably apportioned and divided between the roads named in the State bond issue whereby said bonds were voted.

8. Your committee wishes to heartily indorse the State land colonization plan and that special regard should be given to the development of the project to provide for soldier and sailor settlements.

9. Your committee indorses the recommendations made by the State committee on soldiers' employment and readjustment * * *.

10. Your committee * * * suggests the creation of an emergency public works board composed of important State officials, such as the governor, the commissioner of labor statistics, a highway commissioner, the controller, secretary of the immigration and housing commission, and the State engineer. The purpose of this board would be to plan that a certain portion of public work not immediately necessary be saved and done during periods of unemployment.

It should be its duty to secure from the various departments of the State tentative plans for extensions of necessary public works during periods of unemployment. These plans should be complete enough so that work can be begun on such projects on the shortest notice.

It should indicate to the State departments the advantage of saving up portions of their public works to be done during periods of unemployment.

To urge the municipalities and counties to adopt a similar policy, and to coordinate all public works within the State.

It should recommend to the legislature methods by which certain appropriations for public works will become available only during a period of unemployment.

It should recommend methods by which the bond issues for necessary public works, previously authorized for use during periods of unemployment, may become promptly available at such times.

The recommendation made by the State committee on soldiers' employment and readjustment, referred to in paragraph 9, is as follows:

Whereas many and extensive building plans and projects made and provided by the United States Government and also by the government of the State of California are now being delayed and are not put into immediate operation as was originally contemplated by the enactments provided therefor, because their appropriations are insufficient to cover present increased costs of construction; and

Whereas the State committee on readjustment, of California, believes that the United States Government and the government of the State of California, in order to stimulate private business and to reestablish the confidence of the people, should begin at once all construction possible and put at once into operation all measures that have been adopted for this purpose;

Wherefore, the State committee on readjustment hereby urgently recommends that the Legislature of the State of California give serious consideration to the advisability of immediately appropriating sufficient funds to cover such deficits and take such steps therein as may be deemed by the legislature proper in the premises in order that the said plans and projects for work may be begun at once; and

The State committee on readjustment further recommends that the Legislature of the State of California at once memorialize the Congress of the United States and request that the Congress give immediate impetus to all Government construction by the appropriation of adequate sums of money to complete all work outlined, and that the Congress also provide for and start at once all new construction possible.

EMPLOYMENT IN SELECTED INDUSTRIES IN FEBRUARY, 1919.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in February, 1919, from representative manufacturing establishments in 13 industries. The figures for February of this year as compared with those from identical establishments for February, 1918, show that there was an increase in the number of people employed in 2 industries and a decrease in 11. The two increases, 2.9 and 0.8 per cent, appear in paper making and automobile manufacturing, respectively. The greatest decrease, 59.7 per cent, is shown in woolen.

The reports from 10 industries show an increase in the total amount of the pay roll for February, 1919, when compared with February, 1918. The greatest respective increases—37.3, 34.5, and 32.5 per cent—appear in car building and repairing, iron and steel, and automobile manufacturing. The largest decrease, 53.7 per cent, is shown in woolen.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN FEBRUARY, 1918, AND FEBRUARY, 1919.

Industry.	Establishments reporting for February, both years.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
			February, 1918.	February, 1919.		February, 1918.	February, 1919.	
Automobile manufacturing...	47	1 week..	109,583	110,472	+ 0.8	\$2,445,176	\$3,240,057	+32.5
Boots and shoes.....	74	..do....	66,023	63,536	- 3.8	1,002,697	1,279,207	+27.6
Car building and repairing.....	46	½ month..	53,379	52,560	- 1.5	2,122,630	2,913,715	+37.3
Cigar manufacturing.....	53	1 week..	19,122	17,164	-10.2	245,867	269,102	+ 9.5
Men's ready-made clothing.....	37	..do....	28,752	21,216	-26.2	497,990	446,224	-10.4
Cotton finishing.....	18	..do....	14,721	11,059	-24.9	222,404	194,881	-12.4
Cotton manufacturing.....	58	..do....	50,891	50,589	- .6	620,865	710,267	+14.4
Hosiery and underwear.....	63	..do....	33,487	28,070	-16.2	371,234	398,895	+ 7.5
Iron and steel.....	101	½ month..	174,406	168,174	- 3.6	8,586,379	11,544,585	+34.5
Leather manufacturing.....	35	1 week..	15,930	14,894	- 6.5	258,002	326,369	+26.5
Paper making.....	54	..do....	29,192	30,049	+ 2.9	482,580	626,854	+29.9
Silk.....	49	2 weeks..	15,869	13,866	-12.6	381,693	435,397	+14.1
Woolen.....	49	1 week..	45,929	18,516	-59.7	650,780	301,315	-53.7

The following table shows the number of persons actually working on the last full day of the reported pay period in February, 1918, and February, 1919. 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 THE LAST FULL DAY'S OPERATION IN FEBRUARY, 1918, AND FEBRUARY, 1919.

Industry.	Establishments reporting for February, both years.	Period of pay roll.	Number actually working on last full day of reported pay period in February—		Per cent of increase (+) or decrease (-).
			1918	1919	
Automobile manufacturing.....	29	1 week..	63,983	65,587	+ 2.5
Boots and shoes.....	20	..do....	11,926	10,311	-13.5
Car building and repairing.....	46	½ month..	47,299	46,417	- 1.9
Cigar manufacturing.....	20	1 week..	5,499	4,975	- 9.5
Men's ready-made clothing.....	7	..do....	4,556	3,606	-20.9
Cotton finishing.....	13	..do....	10,366	7,449	-28.1
Cotton manufacturing.....	33	..do....	22,982	24,768	+ 7.8
Hosiery and underwear.....	20	..do....	14,874	12,876	-13.4
Iron and steel.....	79	½ month..	135,952	135,508	- .3
Leather manufacturing.....	19	1 week..	11,514	11,068	- 3.9
Paper making.....	20	..do....	12,411	11,341	- 8.6
Silk.....	23	2 weeks..	8,334	7,473	-10.3
Woolen.....	38	1 week..	32,477	8,318	-74.4

The figures in the next table show that in three industries there were more persons on the pay roll in February, 1919, than in January, 1919. The largest increase, 2.9 per cent, is shown in men's ready-made clothing, while the greatest decrease, 42.1 per cent, appears in woolen.

Of the 13 industries reporting, 2 show increases and 11 decreases in the total amount of the pay roll in February, 1919, as compared

with January, 1919. The increases, 7.9 and 2.4 per cent, appear in automobile manufacturing and leather manufacturing. In woolen, cotton finishing, cotton manufacturing, and car building and repairing, respective decreases of 44.5, 20.5, 18.8, and 16 per cent are shown.

Many of the decreases in February over January are largely due to labor troubles and to the fact that several plants were not running full time. A large number of establishments reported a reduction in the number of working hours per week.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JANUARY, 1919, AND FEBRUARY, 1919.

Industry.	Estab-lishments reporting for January and February.	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 (—).
			January, 1919.	February, 1919.		January, 1919.	February, 1919.	
Automobile manufacturing.....	46	1 week..	107,741	108,546	+ 0.7	\$2,963,982	\$3,197,307	+ 7.9
Boots and shoes.....	72	..do....	63,280	63,242	— .1	1,335,821	1,274,665	— 4.6
Car building and repairing.....	46	½ month.	59,185	52,560	—11.2	3,467,067	2,913,715	—16.0
Cigar manufacturing.....	52	1 week..	17,180	17,138	— .2	277,085	268,467	— 3.1
Men's ready-made clothing.....	37	..do....	20,746	21,340	+ 2.9	450,502	449,497	— .2
Cotton finishing.....	17	..do....	12,574	10,658	—15.2	237,213	188,486	—20.5
Cotton manufacturing.....	53	..do....	50,631	48,342	— 4.5	831,146	674,744	—18.8
Hosiery and underwear.....	61	..do....	28,457	26,459	— 7.0	422,554	382,363	— 9.5
Iron and steel.....	96	½ month.	174,895	164,928	— 5.7	12,038,666	11,348,186	— 5.7
Leather manufacturing.....	34	1 week..	13,895	13,938	+ .3	299,744	306,792	+ 2.4
Paper making.....	53	..do....	30,137	29,471	— 2.2	639,893	611,828	— 4.4
Silk.....	46	2 weeks.	12,165	11,582	— 4.8	412,812	361,628	—12.4
Woolen.....	47	1 week..	28,349	16,409	—42.1	473,229	262,707	—44.5

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for January and February, 1919:

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON THE LAST FULL DAY'S OPERATIONS IN JANUARY, 1919, AND FEBRUARY, 1919.

Industry.	Estab-lishments reporting for January and February.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (—).
			January, 1919.	February, 1919.	
Automobile manufacturing.....	26	1 week....	61,809	60,539	— 2.1
Boots and shoes.....	31	..do....	15,297	15,303	(1)
Car building and repairing.....	45	½ month....	52,543	45,535	—13.3
Cigar manufacturing.....	16	1 week....	4,091	4,506	+10.1
Men's ready-made clothing.....	8	..do....	4,045	4,108	+ 1.6
Cotton finishing.....	14	..do....	8,450	7,686	— 9.0
Cotton manufacturing.....	32	..do....	24,528	23,920	— 2.5
Hosiery and underwear.....	24	..do....	13,570	13,456	— .8
Iron and steel.....	82	½ month....	141,395	136,523	— 3.4
Leather manufacturing.....	21	1 week....	10,570	10,767	+ 1.9
Paper making.....	21	..do....	13,683	13,055	— 4.6
Silk.....	21	2 weeks....	5,370	5,420	+ .9
Woolen.....	44	1 week....	22,351	11,196	—49.

¹ Increase of less than one-tenth of 1 per cent.

CHANGES IN WAGE RATES.

During the period January 15 to February 15, 1919, there were establishments in but 5 of the 13 industries which reported increases in the wage rates, while decreases were reported in three of the industries. A number of firms did not answer the inquiry relating to wage-rate changes, but in such cases it is probably safe to assume that none were made.

Automobile manufacturing.—The average productive hourly rate in one plant was increased 0.016 cent. An increase was reported by another plant but no further information was given.

Boots and shoes.—An increase ranging from 3 to 7 cents, according to the class of work, was given by one concern; while another establishment decreased the wages of about 6 per cent of the help, 4 per cent.

Men's ready-made clothing.—One establishment granted an increase of 10 per cent to all productive workers. A 9 per cent increase was reported by one plant, which failed to give the number of persons receiving the increase.

Cotton finishing.—A 5 per cent increase was granted by one plant but no data was given as to the number affected thereby.

Cotton manufacturing.—One plant reported a decrease of 13 per cent but made no statement as to the number affected. Another plant reported the discontinuance of a 10 per cent bonus, which had been given to all of the full-time workers.

Hosiery and underwear.—In one mill a bonus to the entire force was reduced from 60 to 25 per cent.

Silk.—An increase of 1 to 2 cents per hour to 3 to 4 per cent of the employees was given by one concern.

**INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL JANUARY, 1915,
TO FEBRUARY, 1919.**

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 February, 1919, 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. Therefore, January, 1916, is taken as the basis of comparison.

The number of persons whose names appeared on the pay roll for the base month is represented by 100. The amount of money carried on the pay rolls is likewise represented by 100. To illustrate, if the number of persons employed in the iron and steel industry in January, 1916, is taken as 100, then the number employed in that

industry in February, 1919, was 128; that is, it had increased 28 per cent; and if the money pay roll in January, 1916, be taken as 100, the pay roll in February, 1919, represented 250; or, in other words, the amount paid in wages was two and a half times as much in February, 1919, as in January, 1916.

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, JANUARY, 1915, TO FEBRUARY, 1919.

[January, 1916=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.....	87	80	85	81	101	98	87	76	74	62	91	83	88	81
February.....	87	77	94	90	101	103	91	81	71	65	98	90	88	80
March.....	83	71	91	89	103	105	91	85	77	72	93	92	91	84
April.....	77	61	93	92	102	103	94	85	80	75	90	85	93	88
May.....	79	66	93	93	103	104	96	90	82	74	90	88	94	86
June.....	80	71	87	86	102	99	98	92	85	81	90	85	89	79
July.....	81	73	92	85	103	99	96	90	87	75	89	85	92	79
August.....	82	76	90	88	101	100	94	89	90	83	91	87	90	78
September.....	82	76	90	87	101	101	98	89	93	87	92	87	99	90
October.....	90	89	94	92	102	94	100	98	97	91	94	94	99	82
November.....	94	97	104	94	103	99	101	100	97	98	97	100	102	94
December.....	109	103	97	100	102	98	104	105	97	101	98	100	103	98
1916														
January.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100
February.....	100	99	101	105	101	108	101	105	102	113	97	105	102	108
March.....	101	101	103	107	101	110	103	108	105	115	100	109	102	109
April.....	99	97	98	103	101	111	104	108	104	115	101	108	104	110
May.....	98	99	95	110	101	116	105	111	108	126	99	108	105	117
June.....	99	102	96	110	102	115	105	110	109	128	100	110	103	112
July.....	100	101	96	107	102	112	104	102	110	111	101	100	101	110
August.....	99	98	97	107	100	112	102	102	113	125	100	103	97	104
September.....	98	98	96	109	100	114	104	108	115	130	99	104	101	111
October.....	98	99	96	110	100	110	106	112	115	135	100	109	102	108
November.....	102	113	99	114	100	115	107	119	117	138	98	108	103	116
December.....	107	125	101	126	102	123	108	124	118	144	100	112	105	128
1917														
January.....	108	126	99	123	101	121	107	121	122	152	100	112	107	132
February.....	108	128	99	122	102	123	108	120	123	149	99	114	106	131
March.....	107	126	99	124	101	125	109	124	124	159	98	118	108	131
April.....	105	117	96	121	101	122	106	117	124	148	97	115	105	124
May.....	104	122	98	132	100	127	108	126	127	176	95	118	106	140
June.....	105	132	98	134	100	135	107	128	129	176	93	113	104	139
July.....	102	123	94	124	101	135	105	126	130	165	93	107	104	140
August.....	97	122	94	123	99	129	103	122	134	183	91	107	102	136
September.....	91	121	96	125	98	133	104	125	133	179	89	107	104	142
October.....	93	121	95	128	98	135	105	133	135	212	88	111	107	155
November.....	101	137	98	140	100	153	106	144	136	214	88	111	110	168
December.....	101	162	100	146	101	160	108	148	136	207	88	111	112	175
1918														
January.....	101	161	96	132	100	153	105	134	134	184	86	102	107	159
February.....	102	158	96	129	95	140	107	135	135	190	88	104	105	139
March.....	103	172	98	141	100	162	108	159	137	206	89	120	109	172
April.....	99	166	94	147	98	168	108	161	136	206	88	123	109	186
May.....	97	166	93	149	96	173	107	166	138	236	87	127	106	180
June.....	96	173	93	158	96	179	107	165	139	235	87	124	106	180
July.....	98	176	97	169	97	192	108	175	137	220	85	121	105	185
August.....	96	173	95	161	97	189	107	171	138	245	83	123	104	199
September.....	95	183	92	165	95	193	105	175	137	249	79	127	103	191
October.....	89	171	88	152	87	163	95	155	138	282	79	128	95	162
November.....	92	156	89	147	92	164	101	148	135	257	76	107	98	148
December.....	95	207	92	170	98	206	101	179	138	279	77	127	90	156
1919														
January.....	95	211	84	143	99	198	97	159	136	265	79	123	74	117
February.....	95	201	71	114	95	160	90	144	128	250	75	108	43	65

INDEX NUMBERS OF EMPLOYMENT AND OF PAY ROLL, JANUARY, 1915, TO FEBRUARY, 1919—Concluded.

Month and year.	Automobile manufacturing.		Car building and repairing.		Cigar manufacturing.		Men's ready-made clothing.		Leather manufacturing.		Paper making.	
	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.....			80	87	106	91	92	86				
April.....			67	71	90	88	80	70				
May.....			86	91	98	92	94	86				
June.....			87	97	94	94	95	95				
July.....			92	104	96	99	97	107				
August.....			89	92	92	94	83	86				
September.....			95	97	97	93	80	83				
October.....			99	108	106	109	84	95				
November.....	99	108	104	113	108	116	88	107	97	91	84	92
December.....	100	100	108	133	106	111	81	93	101	103	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	132	99	97	100	106	111	105	103	106
April.....	112	114	110	132	93	96	97	106	110	108	104	107
May.....	113	119	109	133	90	96	102	105	106	109	106	112
June.....	109	115	111	134	91	98	105	116	104	112	108	118
July.....	116	105	108	126	91	99	105	122	106	113	107	117
August.....	117	119	109	125	90	97	97	118	110	118	109	122
September.....	123	132	113	128	93	105	93	112	101	111	102	118
October.....	132	148	111	132	97	112	95	116	111	129	103	122
November.....	129	155	117	145	93	110	101	126	113	131	101	124
December.....	125	135	116	154	96	117	92	117	116	141	114	138
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	130	92	106	110	123	114	133	116	135
May.....	130	156	105	144	92	113	113	135	109	133	113	141
June.....	125	146	104	144	94	118	118	144	106	129	115	144
July.....	118	141	108	134	94	117	113	151	105	126	111	139
August.....	120	136	107	146	87	107	108	141	104	130	103	138
September.....	125	153	96	129	91	114	103	136	104	136	109	143
October.....	126	160	103	153	98	127	101	139	104	144	110	148
November.....	122	165	108	166	103	137	104	154	111	157	111	161
December.....	121	156	113	170	103	136	107	162	114	172	114	160
1918.												
January.....	119	137	113	151	103	129	102	147	111	163	112	146
February.....	119	142	112	154	101	131	105	155	108	154	109	147
March.....	123	158	111	167	104	141	101	159	106	165	113	168
April.....	124	161	108	166	103	142	101	164	102	161	112	171
May.....	124	172	109	177	88	121	101	168	101	175	113	174
June.....	126	175	102	163	94	138	101	170	104	192	113	181
July.....	122	170	110	196	96	139	102	172	106	192	114	191
August.....	118	177	116	240	92	121	98	163	105	194	114	204
September.....	120	182	119	242	93	135	94	154	102	188	114	203
October.....	121	192	125	271	87	125	86	146	98	177	106	194
November.....	123	174	126	263	92	137	85	139	99	172	112	191
December.....	114	174	125	250	95	155	83	147	100	198	116	217
1919.												
January.....	108	159	122	234	89	141	76	142	101	191	115	206
February.....	108	164	109	197	89	137	78	142	101	196	113	197

**REPORT OF EMPLOYMENT EXCHANGES IN THE UNITED KINGDOM
(GREAT BRITAIN AND IRELAND) FOR FIVE WEEKS ENDING JANUARY
10, 1919.**

As reported by the British Labor Gazette for February, 1919, the total number of work people remaining on the registers of the 416 British employment offices on January 10, 1919, was 555,194, as compared with 189,270 on December 6, 1918. These figures comprise workers in professional, commercial, and clerical, as well as industrial occupations.

The operations of the employment exchanges for the five weeks are summarized as follows:

OPERATION OF BRITISH EMPLOYMENT EXCHANGES FOR FIVE WEEKS ENDING
JAN. 10, 1919.

Item.	Men.	Women.	Boys.	Girls.	Total.
On registers Dec. 6, 1918.....	60,582	109,269	10,756	8,663	189,270
Number of individuals registered during period.....	222,712	318,626	34,790	36,286	612,414
Total.....	283,294	427,895	45,546	44,949	801,684
Reregistrations during period.....	3,354	3,921	579	455	8,309
On registers Jan. 10, 1919.....	183,536	320,679	25,070	25,909	555,194
Vacancies notified during period.....	66,535	60,360	9,092	10,456	146,443
Vacancies filled during period.....	35,787	27,198	7,180	6,450	76,615
Applicants placed in other districts.....	6,625	1,828	771	958	10,182

The average daily number of registrations, of vacancies notified, and of vacancies filled, during the month was 23,874, 5,632, and 2,947, respectively.

AVERAGE DAILY REGISTRATIONS, VACANCIES NOTIFIED AND FILLED, BY SEX,
FOR FIVE WEEKS ENDING JAN. 10, 1919.

Sex of applicants.	Average daily registrations.			Average daily vacancies notified.			Average daily vacancies filled.		
	Five weeks ending Jan. 10, 1919.	Increase (+) or decrease (-) on a—		Five weeks ending Jan. 10, 1919.	Increase (+) or decrease (-) on a—		Five weeks ending Jan. 10, 1919.	Increase (+) or decrease (-) on a—	
		Month ago.	Year ago.		Month ago.	Year ago.		Month ago.	Year ago.
Men.....	8,695	+ 3,971	+ 5,299	2,559	-221	-144	1,376	-258	- 482
Women.....	12,406	+ 5,880	+ 8,300	2,322	+ 1	+279	1,046	-163	- 560
Boys.....	1,360	+ 410	+ 782	349	- 38	- 39	277	- 28	- 52
Girls.....	1,413	+ 701	+ 782	402	- 9	+ 70	248	- 8	- 6
Total.....	23,874	+10,962	+14,959	5,632	-267	+166	2,947	-457	-1,100

Compared with the previous month, the daily average of registrations showed a percentage increase of 84.9. The daily average of vacancies notified and vacancies filled showed percentage decreases of 4.5 and 13.4, respectively.

The table following shows, by occupational groups, the number of individuals registered, the vacancies notified, and the vacancies filled, indicating the extent of unemployment in Great Britain during the five weeks ending January 10, 1919.

INDIVIDUALS REGISTERED, VACANCIES NOTIFIED, AND VACANCIES FILLED IN THE FIVE WEEKS ENDING JAN. 10, 1919 (GENERAL REGISTER).

Occupation groups. ¹	Adults.						Juvéniles.				
	Individuals registered during period.		Vacancies notified during period.		Vacancies filled during period.		Vacancies notified during period.		Vacancies filled during period.		
	Men.	Women.	Men.	Women.	Men.	Women.	Boys.	Girls.	Boys.	Girls.	
<i>A. Insured trades.</i>											
Building.....	33,808	1,992	13,161	111	7,981	99	382	4	315	4	2
Works of construction.....	8,930	98	5,296	1	3,768	1	2	2	1	2	4
Sawmilling.....	2,539	2,490	919	113	3,61	90	208	40	205	29	29
Shipbuilding.....	11,257	422	4,833	45	2,383	46	134	2	121	5	5
Engineering.....	69,980	53,358	14,675	1,124	9,001	945	1,948	359	1,600	308	308
Construction of vehicles.....	1,786	883	651	16	170	14	81	7	70	.....	.....
Cabinet making, etc.....	738	531	490	77	72	31	62	29	60	.....	.....
Miscellaneous metal trades.....	8,105	7,153	2,119	493	914	329	485	322	284	253	253
Precious metals, etc.....	558	987	266	399	34	167	168	209	100	67	67
Bricks and cement.....	266	344	471	48	79	18	14	2	12	1	1
Chemicals, etc.....	1,405	1,491	648	340	437	194	259	93	244	80	80
Rubber and waterproof goods.....	367	1,512	143	239	98	202	21	77	18	54	54
Ammunition and explosives.....	3,062	15,916	797	155	719	148	34	25	32	20	20
Leather, excluding boots and shoes.....	678	1,954	150	209	52	95	53	109	32	91	91
Total, insured trades.....	143,479	89,131	44,619	3,370	26,069	2,379	3,851	1,280	3,094	914	914
<i>B. Uninsured trades.</i>											
Wood, furniture, fittings, etc.....	94	154	86	55	5	18	26	41	18	23	23
Domestic.....	3,427	37,024	1,947	35,056	687	11,624	564	3,186	417	1,195	1,195
Commercial and clerical.....	7,606	17,084	3,038	5,569	2,116	4,425	606	966	495	843	843
Conveyance of men, goods, etc.....	16,468	8,571	5,843	791	1,894	551	2,176	811	1,696	610	610
Agriculture.....	1,503	1,363	1,622	769	269	382	197	103	122	67	67
Mining and quarrying.....	2,091	145	836	2	177	1	25	.....	21	.....	.....
Brushes, brooms, etc.....	50	274	12	20	3	6	11	27	7	16	16
Pottery and glass.....	1,011	890	154	220	49	131	48	56	38	26	26
Paper, prints, books, and stationery.....	718	2,512	298	385	70	228	153	407	107	260	260
Textile.....	17,139	69,437	896	4,376	245	1,781	217	820	164	484	484
Dress.....	1,240	15,253	234	3,094	50	1,057	59	810	39	541	541
Boots and shoes.....	511	856	349	317	101	154	67	77	61	60	60
Food, tobacco, drink, and lodging.....	900	8,226	678	3,036	264	2,041	170	775	131	530	530
General laborers.....	23,030	47,489	3,855	718	2,530	529	541	336	460	294	294
Shop assistants.....	1,168	15,981	276	1,018	73	532	139	549	100	411	411
Government, defense and professional.....	1,888	3,943	1,050	1,427	681	1,265	224	201	191	168	168
All others.....	389	293	742	137	504	94	18	11	19	8	8
Total, uninsured trades.....	79,233	229,495	21,916	56,990	9,718	24,819	5,241	9,176	4,086	5,536	5,536
Grand total, all trades.....	222,712	318,626	66,535	60,360	35,787	27,198	9,092	10,456	7,180	6,450	6,450

¹ Occupations are grouped according to the industry with which they are mainly connected, and applicants are registered according to the "work desired" by them.

In the insured trades 232,610 adults registered for work during the period—143,479 men and 89,131 women. There were 53,120 vacancies reported—44,619 men, 3,370 women, 3,851 boys, and 1,280 girls. The number of positions filled was 32,456—26,069 men, 2,379 women, 3,094 boys, and 914 girls. The occupational groups in which the largest number of positions was filled by adults were: Engineering, 9,946, and building, 8,080.

In the uninsured trades there were 308,728 adults registered—79,233 men and 229,495 women. The number of vacancies reported was 93,323—21,916 men, 56,990 women, 5,241 boys, and 9,176 girls. The total number of positions filled was 44,159—9,718 men, 24,819 women, 4,086 boys, and 5,536 girls. The occupational group in the uninsured trade in which the largest number of positions was filled by adults was: Domestic, 12,311.

The total number of positions filled by adults in both the insured and uninsured trades during the five weeks ending January 10, 1919, as compared with the preceding month, shows a decrease of 7.7 per cent. The decrease in the number of positions filled by men was 8.8 per cent; by women, 6.2 per cent. The largest number of both men and women were employed in domestic trades.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1919.

The following figures as to the condition of employment in Great Britain and Ireland in January, 1919, as compared with December, 1918, and January, 1918, have been compiled from figures appearing in the British Labor Gazette for February, 1919. Similar information for October was published in the January Review.

In comparing January, 1919, with December, 1918, as to number of employees, only one large increase—8.9 per cent, in seamen—is shown, while a number of slight increases, ranging from 0.1 to 3.8 per cent, appear. The largest decreases shown are 5.8, 4.5, and 4.4 per cent in sawmilling and machining, wholesale mantle, costume, blouses, etc. (London) and the engineering trades, respectively, while several small decreases appear. These range from 0.2 to 2.2 per cent.

In January, 1919, as compared with December, 1918, relative to the number of persons employed, seamen show an increase of 29.4 per cent; dock and riverside labor, an increase of 20 per cent; and cement trade, an increase of 9.6 per cent. The engineering trades and the wholesale mantle, costume, blouses, etc. (London) show the largest respective decreases of 12.3 and 10.8 per cent.

The aggregate earnings of employees in January, 1919, as compared with January, 1918, show an increase of 13.8 per cent in the jute trade, while other increases are shown which range from 0.3 to 2.6 per cent. Decreases of 4.1 and 3.5 per cent are shown in the pottery and brick trades, respectively.

Comparing January, 1919, with January, 1918, on the question of earnings of employees, more important changes are shown, all of which are increases. The cotton trade shows an increase of 44.5 per cent; linen, an increase of 34.8 per cent; printing trades, 33.9

per cent; and the bookbinding trade shows an increase of 33.6 per cent. Thirteen trades show increases ranging from 14.6 to 28.2 per cent.

VOLUME OF EMPLOYMENT IN THE UNITED KINGDOM (GREAT BRITAIN AND IRELAND) IN JANUARY, 1919, AS COMPARED WITH DECEMBER, 1918, AND JANUARY, 1918.

[Compiled from figures in the Labour Gazette, London, February, 1919.]

Industries, and basis of comparison.	Per cent of increase (+) or decrease (-) in January 1919, as compared with—		Industries, and basis of comparison.	Per cent of increase (+) or decrease (-) in January, 1919, as compared with—	
	December, 1918.	January, 1918.		December, 1918.	January, 1918.
Coal mining: Average number of days worked.....	- 3.5	+ 2.6	Other clothing trades:		
Iron mining: Average number of days worked.....	- 1.7	- 1.5	Dressmaking and millinery—		
Quarrying: Average number of days worked.....	- 3.5	+ 4.1	Number of employees...	+3.8	+ 4.6
Pig iron: Number of furnaces in blast.....	+ 4.1	- 5.1	Wholesale mantle, costume, blouses, etc.—		
Iron and steel works:			Number of employees—		
Number of employees.....	- 1.7	- 4.9	London.....	-4.5	-10.8
Number of shifts worked.....	- 1.5	- 6.0	Manchester.....	-2.1	- .6
Engineering trades: Number of employees ¹	- 4.4	-12.3	Glasgow.....	-2.0	+ 4.1
Shipbuilding trades: Number of employees ¹	- 2.2	- 4.4	Corset trade: Number of employees.....	+2.0	- 7.8
Tinplate, steel, and galvanized sheet trades: Number of mills in operation.....	+ 8.3	+26.7	Building and construction of works: Number of employees ¹	-1.2	- 5.4
Cotton trade:			Sawmilling and machining:		
Number of employees.....	(²)	- 4.7	Number of employees ¹	-5.8	- 9.8
Earnings of employees.....	(²)	+44.5	Brick trade:		
Woolen trade:			Number of employees.....	(³)	- 4.3
Number of employees.....	+ .4	- 2.5	Earnings of employees.....	-3.5	+12.0
Earnings of employees.....	- 1.3	+22.3	Cement trade:		
Worsted trade:			Number of employees.....	+2.5	+ 9.5
Number of employees.....	+ 1.2	- 2.0	Earnings of employees.....	- .2	+26.0
Earnings of employees.....	- .6	+28.2	Paper, printing, and bookbinding trades:		
Hosiery trade:			Paper trades—		
Number of employees.....	+ 1.9	- .6	Number of employees reported by trade-unions ¹	-1.4	- 1.9
Earnings of employees.....	- .3	+16.1	Number of employees reported by employers.....	-1.4	(³)
Jute trade:			Earnings of employees reported by employers.....	+ .3	+21.0
Number of employees.....	- .2	+ 4.3	Printing trades—		
Earnings of employees.....	+13.8	+14.6	Number of employees reported by trade-unions ¹	- .3	- .4
Linen trade:			Number of employees reported by employers.....	+2.1	+ 1.8
Number of employees.....	+ .1	- 2.6	Earnings of employees reported by employers.....	+ .6	+33.9
Earnings of employees.....	+ 1.3	+34.8	Bookbinding trades—		
Silk trade:			Number of employees reported by trade-unions ¹	- .8	- 1.1
Number of employees.....	+ .7	- 1.5	Number of employees reported by employers.....	(³)	+ 1.4
Earnings of employees.....	+ 1.7	+23.0	Earnings of employees reported by employers.....	-2.2	+33.6
Carpet trade:			Pottery trade:		
Number of employees.....	+ 1.9	- .5	Number of employees.....	- .7	- 3.4
Earnings of employees.....	+ 2.1	+24.4	Earnings of employees..	-4.1	+18.2
Lace trade:			Glass trades:		
Number of employees.....	+ .2	- 8.1	Number of employees.....	+ .4	- 7.2
Earnings of employees.....	+ 2.6	+ 4.7	Earnings of employees.....	-1.2	+ 9.1
Bleaching, printing, dyeing, and finishing:			Food preparation trades:		
Number of employees.....	+ .5	- 6.9	Number of employees.....	+1.2	+ 3.3
Earnings of employees.....	- .4	+12.4	Earnings of employees.....	+2.3	+27.4
Boot and shoe trade:			Dock and riverside labor: Number of employees.....	+1.4	+20.0
Number of employees.....	+ 1.1	- 3.5	Seamen: Number of employees..	+8.9	+29.4
Earnings of employees.....	- 1.4	+19.3			
Leather trades: Number of employees ¹	- .5	+ .4			
Tailoring trades:					
Number of employees.....	- 1.9	- 1.3			
Earnings of employees.....	- 2.1	+18.0			
Shirt and collar trade:					
Number of employees.....	+ 1.0	+ .2			
Earnings of employees.....	+ 1.1	+26.1			

¹ Based on unemployment returns.

² Owing to a strike, it is impossible to give the usual statistics showing a comparison of employment between January and December.

³ No change.

AGREEMENTS BETWEEN EMPLOYERS AND EMPLOYED.

JOINT INDUSTRIAL COUNCIL OF BRADFORD (ENGLAND) CITY CORPORATION AND ITS EMPLOYEES.

In line with the recommendations of the Whitley committee for the establishment of joint industrial councils, the Bradford (England) city council has organized a joint consultative board of the corporation and its employees to consider at regular intervals questions of wages, rates of pay, hours, and working conditions, and to take necessary steps to prevent the differences and misunderstandings between the corporation and its employees, according to information from the United States consul at Bradford under date of January 16, 1919. The corporation, continues the consul, is the largest employer of labor in the city, having nearly 7,000 employees, such as school teachers, clerks, etc., and employees in the various public services, such as tramways, and the municipal gas, electricity, and water works, etc.

The board will consist of 32 members, one-half appointed by the corporation, and the other half by the respective sections or groups of employees. The scheme will not in any way interfere with the liberties of the corporation on the one hand or the rights of the unions on the other. The board will represent all sections of the employees, and the unions will, as heretofore, have full power to approach the respective committees of the corporation upon any matters they desire to bring forward.

National industrial councils are in process of formation for most industries, including tramways, gas, water, and electricity, while the National council for all employees of local authorities other than the four large trading undertakings above mentioned has been formulated by a drafting committee from the large municipal associations on the one hand and representatives of 12 large trade-unions on the other. The Bradford local board was formed after consultation with the Minister of Labor. Already, it is stated, other municipalities are considering the formation of similar local boards.

In a printed copy of the draft scheme which has been received by this bureau the functions of the board are stated to be—

to secure the largest possible measure of joint action between the corporation and its employees for the development of the various services of the corporation and for the improvement of the conditions of all engaged therein.

Among its more specific objects are the following:

To provide, in respect of the services concerned, for (a) the consideration at regular intervals of wages and rates of pay, hours, and working conditions (including the method of adjustment of earnings to actual or anticipated new conditions).

(b) The consideration from time to time of such matters as sickness and accident pay, compensation and unemployment and underemployment pay.

To take such action as it may deem necessary or desirable to prevent differences and misunderstandings between the corporation and its employees.

The immediate consideration of any differences between any parties and sections in the corporation service, and the establishment of any necessary machinery for this purpose with the object of securing the speedy settlement of the differences.

The collection of statistics and information, as and when agreed upon, on matters appertaining to the services concerned.

The encouragement of the study of processes and design and of research with a view to perfecting the services concerned.

The provision of facilities for the full consideration and utilization of inventions and improvements in machinery or method, and for the adequate safeguarding of the rights of the designer of such improvement, and to secure that such invention and improvement in machinery or method shall give to every person concerned an equitable share of the benefits, financial or other.

Inquiries into the special problems of the services concerned, including the comparative study of the organization and methods of the services in this and other countries, and where desirable the publication of reports.

The consideration of the means to secure that the employees shall have a greater share in and responsibility for the determination and observance of the conditions under which they carry on their work in so far as it affects the health (including housing) of workers employed in the services concerned, with a view to improvement, and the provision for special health treatment where necessary for workers in the services concerned.

To provide the best means of securing (1) the observance by the corporation and its employees of the decisions and agreements mutually arrived at by their representatives; (2) the greatest possible security and continuity of employment.

The consideration of any proposed general legislation affecting corporation employees and representation of the needs and wishes of the board to Parliament or Government departments through the city council.

The consideration of arrangements for the supervision of the entrance into and training for the various services of the corporation and cooperation with education authorities in arranging education in all its branches for such services.

The consideration of measures for securing the inclusion of all workpeople in such services in their appropriate trade-unions or associations.

To take steps to provide that the board, either directly or through its subcommittees, shall be the "works committee" under any national industrial council which covers any service or services of the corporation.

AGREEMENT BETWEEN TRADE-UNIONS AND EMPLOYERS' ASSOCIATIONS IN GERMANY.

It was only a week after the overthrow of the Imperial Government when it became apparent that the revolution had considerably increased the influence of the trade-unions in political and economic life. The relations between large industrial employers and the labor

movement have assumed an entirely new aspect. While under the monarchical régime the former never acquiesced in recognizing the trade-unions as the legitimate representatives of labor and always declined negotiations with them, they have been forced to reverse their policy under the pressure of present conditions. Even before the revolution an understanding had been arrived at between employers' associations and trade-unions in the mining and metal industries. This development has made further progress during the first week of the revolution. As a result of negotiations carried on at Berlin, 21 of the largest German employers' associations, representing nearly every important industry group, and the seven trade-union and salaried employees' federations, entered into a joint declaration of principles to govern future industrial relations.¹ The agreement has been termed the Magna Charta of German labor. It is reproduced below as printed in the Reichsarbeitsblatt for December, 1918 (p. 874).

1. The trade-unions shall be recognized as the legitimate representatives of labor.
2. Restriction of the freedom of combination and association of male and female workers shall not be permitted.
3. Henceforth employers and employers' associations shall not concern themselves with the workmen's societies (so-called nonmilitant or "yellow" trade-unions) and shall not support or subsidize them, either directly or indirectly.
4. All workmen returning from military service, on reporting for work, shall be entitled to immediate reinstatement into the situation occupied by them before the war. The employers' and workers' federations affected shall use all possible efforts to provide raw materials and orders so that the above obligation may be complied with.
5. Joint regulation and equipartisan administration of employment offices.
6. The working conditions of all male and female workers are to be determined in accordance with conditions in the trade in question through collective agreements with the workers' trade organizations. Negotiations relating thereto shall be immediately initiated and be concluded as soon as possible.
7. In each establishment employing at least 50 workers a workmen's committee shall be appointed which shall represent the workers, and, in cooperation with the employer, shall see to it that the working conditions are regulated in accordance with the collective agreement.
8. The collective agreements shall provide for the establishment of conciliation and arbitration boards, composed of an equal number of employers' and workers' representatives.
9. The maximum regular daily hours of work shall be fixed for all establishments at eight hours. Reductions of wages owing to a shortening of the hours of work shall not take place.
10. For the enforcement of this agreement as well as for the regulation of further measures necessary during demobilization to maintain economic life, and to guarantee the very existence of the working people, especially those seriously disabled in the war, the interested employers' and workmen's organizations shall establish a joint central committee on an equipartisan basis and representing the various trades.

¹ Kölnische Volkszeitung. Cologne, Nov. 16, 1918. Noon edition. Also Deutscher Reichsanzeiger. Berlin, Nov. 18, 1918.

11. This central committee shall also decide all fundamental problems in so far as such arise in the collective regulation of wage and working conditions and shall mediate disputes in which several occupational groups are simultaneously interested.

12. Its decisions shall be binding upon both employers and workers unless they are contested within one week by one of the trade organizations affected.

13. This agreement comes into force on the date of its signature and shall without prejudice to other legal regulation remain in force indefinitely, with the mutual right of its abrogation on three months' notice. This agreement in its intent shall be alike applicable to the relations between employers' and salaried employees' organizations.

The agreement bears a long list of signatures of the largest employers' associations, the Free (social-democratic), Hirsch-Duncker, and Christian trade-unions, several salaried employees' organizations, and the personal signatures of a number of leading manufacturers and labor leaders.

The agreement is also signed by the German Provisional Government and published by it in the *Reichsanzeiger*, the official organ of the Government. The Government, moreover, has instructed the managers of national, State, and municipal establishments to observe the provisions of the agreement.

GERMAN DECREE REGULATING COLLECTIVE AGREEMENTS, WORKERS' AND EMPLOYERS' COMMITTEES, AND ARBITRATION OF LABOR DISPUTES.

In view of the steadily growing importance in Germany of collective agreements between employers and workers' and salaried employees' organizations as to working and wage conditions, the Council of People's Commissioners on December 23, 1918, promulgated a decree giving such collective agreements legally binding force. The decree also regulates the election and functions of workers' and salaried employees' committees and the arbitration of labor disputes. The full text of the decree as published in the *Reichsanzeiger*¹ is as follows:

PART I.—COLLECTIVE AGREEMENTS.

ARTICLE 1. If the conditions for the conclusion of labor contracts between workers' organizations and individual employers or organizations of employers have been regulated through an agreement in writing (collective agreement), labor contracts between the interested parties shall be ineffective in so far as they do not conform to such regulations. Nonconforming contracts shall, however, be effective in so far as the collective agreement permits their conclusion or as they contain a change of working conditions more favorable to the worker and not explicitly excluded in the collective agreement. Ineffective provisions are to be replaced by the corresponding provisions of the collective agreement.

Interested parties, within the meaning of paragraph 1, are employers and workers who are parties to the collective agreement or members of the signatory organizations, or on the conclusion of the labor contract have been members of these organizations, or who have concluded a labor contract which refers to the collective agreement.

¹ *Deutscher Reichsanzeiger*, Berlin, Dec. 28, 1918.

ART. 2. Collective agreements that have become of predominant importance in the development of working conditions in an occupation within the territory covered by the agreement may be declared generally binding by the Federal Labor Department (*Reichsarbeitsamt*). In such a case they shall, within the territory in which they are binding, also be binding, within the meaning of article 1, where the employer or worker or both of them are not interested parties in the collective agreement.

In case of a dispute when a labor contract comes within several generally binding collective agreements, and without prejudice to a nonconforming decision of the Federal Labor Department, that collective agreement shall be considered as the governing one which contains provisions regulating the largest number of labor contracts in force in the establishment.

ART. 3. A declaration of the Federal labor department in pursuance of article 2 shall be made only on request. Each signatory party to the collective agreement, as well as organizations of employers or workers who would be affected by the declaration of the Federal labor department, is entitled to make such a request.

The signatory parties to the agreement must append to their request the original or an officially attested copy of the collective agreement. If the request is made by other organizations, the Federal labor department must obtain the original or a copy of the agreement from the signatory parties, who are bound to deliver it.

ART. 4. Any such request must be published by the Federal labor department in the *Deutscher Reichsanzeiger*. The publication must state the time limit within which protests may be lodged. The organizations which are signatory parties to the collective agreement shall, moreover, be requested to express their opinion.

After the expiration of the time limit for protests the Federal labor department shall, after consideration of any protests that may be made, decide on the request, which decision shall be final. If it grants the request it shall simultaneously determine at what time the collective agreement becomes generally binding.

ART. 5. Generally binding collective agreements, with designation of the territory in which they are binding and of the date on which they become generally binding, shall be entered in a special register, which shall be kept by the Federal labor department or by an authority designated by that department in accordance with detailed regulations to be issued by it. The originals or officially attested copies of the collective agreements shall be preserved as appendixes to the register.

Inspection of the register of collective agreements and of its appendixes shall be free to anybody during regular office hours. Employers and workers for whom a collective agreement has been made binding by declaration of the Federal labor department may, moreover, demand from the signatory parties a reprint of the agreement, on payment of the costs.

Entries in the register of collective agreements are to be published in the *Deutscher Reichsanzeiger*, and in such publication the provisions of article 2 shall be pointed out.

ART. 6. If a collective agreement has been declared generally binding the provisions of articles 2 to 5 shall also be correspondingly applicable in case of amendment of the agreement.

PART II.—WORKERS' AND SALARIED EMPLOYEES' COMMITTEES.

ART. 7. In all establishments in which, under article 11 of the law on the national auxiliary service, permanent workers' or salaried employees' committees are in existence, a new election of the members of these committees and their alternates shall take place without prejudice to article 12. The present members and their alternates shall remain in office until these elections have taken place.

ART. 8. In all establishments, administrations, and bureaus in which as a rule at least 20 workers are being employed and in which permanent workers' committees are not already in existence in accordance with article 7 of this decree or in pursuance of the mining laws, such committees shall be created without prejudice to article 12.

This is also applicable to establishments in which hitherto permanent workers' or salaried employees' committees have existed under article 134h of the Industrial Code and in consequence workers' committees under article 11 of the national auxiliary service law were not constituted.

In establishments in which at certain times of the year an increased demand for labor arises regularly, workers' committees shall be formed if at these times at least 20 workers are being employed.

ART. 9. In all establishments, administrations, and bureaus in which as a rule at least 20 salaried employees are being employed and permanent salaried employees' committees in accordance with article 7 of this decree do not exist such committees shall be formed without prejudice to article 12.

Salaried employees, within the meaning of this decree, are all persons subject to insurance in accordance with the salaried employees' insurance law, inclusive of those exempted by article 11 or article 14, Nos. 2 and 3, of the same law, and also those persons who would be subject to insurance if their annual earnings did not exceed 5,000 marks [\$1,190] or their age the sixtieth year. Employees holding a general power of attorney, as well as representatives of undertakings entered in the commercial register or in the register of cooperative societies, shall not be considered as salaried employees.

Article 8 of this decree shall be correspondingly applicable.

ART. 10. Without prejudice to the provisions of paragraphs 2 and 3 of this article, the provisions of articles 7 to 9 of this decree shall also be applicable to establishments, administrations, and bureaus of the National Government, the Federal States, communes, and communal unions, as well as to the administrations of the carriers of the legal workmen's and salaried employees' insurance.

In the transportation undertakings of the National Government and of the Federal States the formation of workers' and salaried employees' committees shall take place in the same way, on the basis of special agreements between the proper administrative authorities and the interested workers' organizations. Each worker and salaried employee must be represented in a committee by representatives to be elected in accordance with the principles of proportional representation.

In railroad administrations which are private undertakings the consent of the supervisory authorities is required for such regulation.

ART. 11. The members of workers' and salaried employees' committees to be formed under articles 7 to 9 and article 10, paragraph 1, of this decree shall be elected by the workers or salaried employees of the establishment, administration, or bureau, or of the division of the establishment, administration, or bureau, for which the committee is to be formed, from among themselves by direct and secret ballot on the principle of proportional representation. In all other respects the regulations issued in pursuance of article 11, paragraph 2, sentence 3, of the law on the national auxiliary service shall be applicable to the formation and composition of workers' and salaried employees' committees and to the election for these committees, with the following modifications:

(1) All male and female workers and salaried employees at least 20 years of age and possessing civic rights shall be entitled to vote and be eligible.

(2) The employer shall appoint an election board of three members for the election of a workers' committee as well as for that of a salaried employees' committee, which shall have charge of the elections. The members of the election board shall be appointed from among the oldest persons entitled to vote. They shall by plurality of votes elect a chairman from among themselves, and if their voting is without result the oldest among them shall be chairman.

(3) In establishments, administrations, and bureaus in which as a rule less than 50 workers or employees are employed, the workers' or salaried employees' committees shall each consist of three members and a like number of alternates.

(4) The State central authority shall, without prejudice to the provisions of Part III of this decree, determine what authorities shall decide disputes as to the necessity of creating a workers' or salaried employees' committee, the right to vote or the eligibility of a worker or salaried employee, the organization, competence, and business management of a workers' or salaried employees' committee, and all disputes arising from the elections to workers' or salaried employees' committees, and shall also regulate the procedure for the settlement of such disputes. In the case of establishments, administrations, and bureaus of the Federal Government and of administrations of the carriers of the workmen's and salaried employees' insurance, the highest competent Federal authority shall take the place of the State central authority, and in the case of establishments, administrations, and bureaus of the military administration, the competent ministry.

ART. 12. If another representative workers' or salaried employees' committee is in existence in an establishment, administration, or bureau in accordance with a collective agreement declared legally binding under article 2 of this decree, the formation of a workers' or salaried employees' committee in pursuance of articles 8 to 11 or a new election of a committee already existing under article 7 of this decree shall not take place.

ART. 13. The workers' and salaried employees' committees (articles 7 to 10 of this decree), as well as representative committees of workers and salaried employees established in accordance with article 12 of this decree, shall safeguard the economic interests of the workers and salaried employees against the employer in the establishments, administrations, or bureaus. In cooperation with the employer they shall supervise the enforcement in the establishment of the collective agreements affecting it. In so far as the working conditions are not regulated by collective agreements the committees shall, in agreement with the interested economic organizations of the workers and salaried employees, take part in the regulation of wages and other working conditions. It shall be their duty to see to it that friendly relations are maintained within the working force or the staff of salaried employees and between them and the employer. They shall give special attention to the combating in the establishment, administration, or bureau of dangers to health and life. In establishments coming under Title VII of the Industrial Code they shall by proposals, advice, and information assist the factory inspection service in combating such dangers, and in other establishments they shall assist other competent authorities.

On request of at least one-fourth of the members of a workers' or salaried employees' committee a meeting must be convened and the subject proposed for discussion must be made the order of the day.

The right of workers' and salaried employees' committees and of committees constituted in accordance with article 12 of this decree of appealing to the arbitration committee or other conciliation or arbitration boards is regulated in detail by article 20 of this decree.

The provisions of paragraphs 1 to 3 do not prejudice the right of workers' and salaried employees' economic organizations to represent the interests of their members. Their authorized representatives shall, in so far as they act in agreement with the workers' or salaried employees' committee or as its agents, be recognized as entitled to conduct negotiations.

ART. 14. Employers and their representatives are prohibited from restricting their workers or salaried employees in the exercise of their right of voting at the elections of workers' or salaried employees' committees or in the acceptance or exercise of the duties of membership of such a committee or to discriminate against them on account of such acceptance or mode of exercise. A reduction of earnings shall not be incurred because of absence from work owing to election of or membership on a committee. Agreements running counter to these provisions shall be invalid.

The provisions of paragraph 1 shall be correspondingly applicable to representations of workers or salaried employees designated in article 12.

Employers or their representatives disobeying the provisions of paragraphs 1 and 2 shall be punished by a fine up to 300 marks [\$71.40] or imprisonment, unless other legal regulations provide more severe punishment.

PART III.—ADJUSTMENT OF LABOR DISPUTES.

ART. 15. For the time being and until the adjustment of labor disputes has been otherwise legally regulated, new arbitration boards shall, without prejudice to article 19 of this decree, be established at the seat in the districts of the former arbitration boards created or admitted in pursuance of the law on the national auxiliary service (art. 9, par. 2, and art. 10, par. 3), in accordance with the following provisions:

The arbitration boards shall consist of two permanent and one nonpermanent representative of the employers and a like number of representatives of the employees of their district. In addition, a nonpartisan chairman of the board may be appointed in accordance with paragraph 4 of this article.

The permanent representatives of the employers and employees in the old arbitration boards and their alternates shall in the same character enter the new boards. For outgoing permanent representatives and their alternates the State central authorities of the Federal State in whose territory the seat of the arbitration board is located shall appoint other representatives and alternates, and, in so far as this is possible, shall make these appointments from lists submitted by economic organizations of employers and employees.

If an arbitration board decides to conduct its affairs without a nonpartisan chairman, it shall elect a chairman and a vice chairman from among the permanent representatives of the employers or the employees of the board. Otherwise the board shall elect a nonpartisan chairman and vice chairman. The board may also decide to call in a nonpartisan chairman in individual instances and in such cases shall each time elect such a chairman. In all these cases the decision and election shall be effected through a majority of votes of all permanent representatives and, in case of their inability to act, of their alternates. In case of a tie vote or an otherwise insufficient result of the voting the State central authority (par. 3, sentence 2) shall appoint a nonpartisan chairman and vice chairman.

The nonpermanent representatives of the employers and employees shall be appointed by the nonpartisan chairman, and, where such a chairman does not exist they shall be chosen by the respective permanent representatives of the employers and employees; they shall be chosen from among the occupational group affected by the dispute and as far as possible from lists submitted by the economic organizations of employers and employees.

The establishment of special branch boards for agriculture and forestry remains permissible.

ART. 16. Women may also be appointed as permanent and nonpermanent representatives of employers and employees and as their alternates. The provisions of articles 3 to 5, article 6, paragraph 1, articles 7 to 9, and article 12 of the decree of December 21, 1916 (Reichs-Gesetzblatt, p. 1411) and of article 1 of the decree of November 13, 1917 (Reichs-Gesetzblatt, p. 1039) shall be applicable to the appointment of representatives and to the declination of such appointment, as well as to the conditions under which representatives shall conduct their official activities, with the reservation that the State central authority shall be competent to decide complaints made in accordance with article 5, paragraph 3 of the first-named decree and to determine the monetary fee in accordance with article 12, paragraph 1, sentence 3, of the same decree.

ART. 17. In their negotiations and voting the arbitration boards shall always be constituted as provided in article 15, paragraph 2, of this decree, and if a nonpartisan chairman has been appointed he shall preside at the sessions.

The chairman shall represent the committee in all dealings with outside parties, conduct current affairs, fix the date of sessions, and direct the proceedings.

A nonpartisan chairman's vote counts the same as the vote of an employers' or employees' representative; a chairman elected from among these representatives has only a vote as a representative of his group.

ART. 18. The State central authority (art. 15, par. 3, sentence 2, of this decree) conjointly with the Federal Treasury shall determine the compensation of the chairmen and vice chairmen as well as the amount of the per diem and transportation allowance in case of journeys made by them in the exercise of their activities as chairmen.

The employment of office help and the regulation of their salaries by the chairmen requires the approval of the State central authority.

The State central authority shall also provide and maintain the office rooms and supplies required by the arbitration boards.

The costs arising therefrom and from the personal expenditures designated in paragraphs 1 and 2, as well as other costs arising from the activities of the arbitration boards, shall be borne by the Federal Government. They shall be disbursed by the State central authority and refunded by the Federal Treasury.

The procedure before arbitration boards shall not be subject to fees and stamp taxes.

ART. 19. For transportation undertakings of the Empire and of the Federal States within the sphere of which, in addition to several local workers' and salaried employees' committees, a competent central committee for the entire undertaking exists, there shall be created a special arbitration board with jurisdiction over the entire territory covered by each transportation undertaking. Appeals to this arbitration board are only permissible after the central committee has dealt with the dispute.

The composition of this arbitration board and the procedure before it may be regulated conjointly by the competent administration and the organizations of its employees. If not thus regulated the provisions of this decree shall be correspondingly applicable.

ART. 20. The arbitration boards may be appealed to by the employer, the workers' and salaried employees' committees, and representative committees formed in accordance with article 12 of this decree, or, where such a committee does not exist, by the workers or salaried employees of an establishment, whenever in case of a dispute between the two parties as to wages or other working conditions an agreement has not been effected and both parties do not call on an industrial court, a mining industrial court, an arbitration board of a guild, or a commercial court to arbitrate the dispute in question. With the consent of the affected employers and employees economic organizations of employers or employees may also appeal to arbitration boards for adjustment of disputes; in so far as the enforcement of collective agreements is in question they may do so independently.

In disputes which come under the jurisdiction of special conciliation or arbitration boards in pursuance of a collective or other agreement between employers and employees, these special boards shall be appealed to, and only when these do not take action shall the arbitration boards established by the present decree or other conciliation boards be called in to settle disputes.

ART. 21. The arbitration board shall also take the initiative in having arbitration proceedings brought before it whenever both parties to the dispute have not invoked another conciliation board or a special conciliation or arbitration board does not have to be invoked in pursuance of a collective or other agreement. If the latter is the case and the special conciliation or arbitration board has not been invoked by one of the

parties, the arbitration board shall point out this neglect to the interested parties, and if they fail even then to invoke this special board the arbitration board shall itself initiate conciliation proceedings.

ART. 22. An arbitration board is competent to settle a dispute if the employees affected are employed within the district of the board. If the employees are employed within the districts of several arbitration boards, the board that has first been invoked shall be competent to settle the dispute. In case of doubt the Federal Labor Department shall decide what board is competent.

In important cases the Federal Labor Department may itself take charge of conciliation or arbitration proceedings or assign them to another arbitration board, in particular to an arbitration board created by a Federal State. In both cases representatives of employers and employees in equal numbers must participate in the proceedings and in the rendering of the award.

ART. 23. Before and during the proceedings the chairman of the arbitration board is authorized to summon persons interested in the dispute and to examine them. In case of inexcusable nonappearance of summoned persons he may fine them not to exceed 100 marks [\$23.80]. Such fines may be appealed from within two weeks after receipt of the order imposing the fine. The appeal is to be decided by the State central authorities (article 15, paragraph 3, sentence 2, of this decree). Article 12 of the decree of December 21, 1916 (Reichs-Gesetzblatt, p. 1411), conjointly with article 16, sentence 2, of the present decree, shall be correspondingly applicable to the collection of these fines.

Interested parties may be represented by their general representatives or business managers, as well as by representatives of economic employers' or employees' organizations.

ART. 24. Through examination of both parties the arbitration board shall establish the points in dispute and the circumstances necessary to be considered in the judgment of the parties.

The arbitration board may itself or through its chairman summon and examine persons who can give information on the circumstances under consideration.

Each member of the arbitration board is authorized to put questions to the representatives of the interested parties and to witnesses.

ART. 25. After the facts have been ascertained each party shall be given an opportunity to discuss the evidence produced by the other party as well as the testimony of witnesses. An attempt shall then be made to bring about an agreement between the disputing parties.

ART. 26. If an agreement has been effected it shall be put in writing, signed by all the members of the arbitration board and the representatives of both parties, and be published unless both parties have previously agreed not to publish it. If an economic employers' or employees' organization has invoked the arbitration board in accordance with article 20, paragraph 1, sentence 2, of this decree, its authorized representatives are entitled to sign the publication of the agreement. The same holds good if such an organization, in agreement with a workers' or salaried employees' committee or as its representative, has taken part in the common discussions and in the attempt at conciliation.

ART. 27. If an agreement has not been effected the arbitration board shall render an award which shall cover all questions in dispute between the parties.

Persons who are or have been interested in individual questions in dispute as employers, members of the workers' or salaried employees' committee, representatives of the employees in accordance with article 12 of this decree, or members of the working force or staff of salaried employees, may not take part in the rendering of the award. If this makes impossible the rendering of an award, the chairman shall request the Federal Labor Department to assign the matter to another arbitration board

An award shall also be rendered if one of the parties fails to put in an appearance or to negotiate.

The decision as to the award is to be effected by a majority vote. If the votes of all employers' representatives are in opposition to the votes of all employees' representatives and a nonpartisan chairman has not been appointed, the chairman must declare that no award has been effected. The same holds good if a nonpartisan chairman presides over the board and abstains from voting.

ART. 28. If an award has been made it must be made known to both parties with the request that within a fixed time limit they shall declare whether they are willing to accept it. If such a declaration is not forthcoming within the fixed time limit, the award shall be considered as declined.

After the expiration of the time limit the arbitration board shall publish a notification signed by all of its members, if this is possible, which shall contain the award made and the declaration of the parties with respect to the award.

ART. 29. If neither an agreement nor an award has been effected, the chairman of the arbitration board shall so announce by publication.

ART. 30. The State central authorities (article 15, paragraph 3, sentence 2, of this decree) shall decide complaints as to the conduct of affairs by the arbitration board or its chairman. They shall also decide appeals whenever the chairman or a member of an arbitration board has been challenged as prejudiced and the arbitration board has not sustained the challenge.

In both instances representatives of employers and employees in equal numbers must participate in the decision as well as in any possible procedure.

PART IV.—FINAL PROVISIONS.

ART. 31. The Federal Labor Department and the State central authorities may transfer the tasks assigned to them, in their entirety or in part, to other authorities.

ART. 32. The present decree has the force of law and shall become effective on the date of its promulgation.

WAGES AND HOURS OF LABOR.

THE SIX-HOUR DAY AND COPARTNERSHIP IN INDUSTRY.

[A REVIEW OF LORD LEVERHULME'S BOOK BY PROF. WILLIAM F. OGBURN, FORMERLY OF THE UNIVERSITY OF WASHINGTON.]

The American public has been reading a good deal during the past year about the reconstitution of industrial society in Great Britain after the war. While the greatest source of information has been the British Labor Party and various labor centers, these have been by no means the only significant sources nor the most interesting. There have been various rumors of plans from the employers to adopt the six-hour day and to share the control of industry through the medium of copartnership. Some of these rumors have centered around the name of the great manufacturer at Port Sunlight, Lord Leverhulme. And now the interesting views of Lord Leverhulme on the future of industrial society are set forth in some detail and made available in a book under the spectacular title of *The Six Hour Day*.¹ A reading of this book shows the author to have a good knowledge of general economics and sociology as well as an intimate first-hand acquaintance with the practical problems of industry.

He thinks the workers should work only six hours a day; that the time is ripe now for the adoption of a six-hour workday in Britain, and that the workers should receive the same wages for six hours' work that they now receive for eight or ten hours' work. He favors paying not only high and still higher wages, but wants the employees furthermore to share in the profits of industry. And this share in the profits is by a method he calls copartnership, which is not the profit sharing in lieu of wage increases of which we have seen so much. His profit sharing is a return over and above the trade-union rate of wages, and acts in no sense as a bar to further wage increases. He wants to abolish poverty and make unemployment a thing unknown. He is particularly insistent upon good housing and insists that no more than 10 or 12 houses to the acre should be built and that every home should have a garden. His plans for education include adults as well as youths and under the six-hour day there seems to be no age limit to which it might not be carried. He is opposed to the tariff because it taxes those least able to bear it.

Such a program as the above makes the usual schemes of welfare work look insignificant. If this is benevolent paternalism it is carried so far as to make it look very much worth while even to the most radical. But how about the labor unions? After all these good

¹ *The Six Hour Day, and other industrial questions*, by Lord Leverhulme. London, 1918. George Allen & Unwin (Ltd.), 1918. 328 pp.

things are had, isn't this autocracy in industry, just the same? But our spokesman is in favor of trades-unions, and protests against the unequal distribution of wealth. He says:

I am bound to say I feel it very intensely that it has to be recorded at the beginning of the twentieth century that nine-tenths of the wealth of the United Kingdom should be possessed by less than one-tenth of the people, and that nine-tenths of the people should possess only one-tenth of the wealth. That is a system that can not be defended for one single moment. But you must remember this, that through all the centuries we have had such a system of taxation in this country that the taxes have not been laid on the backs best able to bear them, but have been laid on the worker.

He is not afraid of governmental action and wants the cities to buy up land for purposes of building homes for the people and thus prevent speculation in land.

We know the slums of London and the overcrowding of London; but do we realize that the Metropolitan area, with its 7½ millions of people, covers the extensive area of 450,000 acres of ground. If, therefore, we had planned for building under ideal conditions of some 10 houses to the acre over the whole of this Metropolitan area, * * * we could * * * have provided for housing 22½ millions of people * * * with ideal surroundings for comfort and happiness. It is merely a case of bad packing.

His opposition to all forms of philanthropy and charity is strong. Also more than once the author speaks of the hope for workmen who could help to control the industries in which they work.

Such a program, significant features of which have just been set forth, sounds very strange indeed coming from the pen of a capitalist, and at first glance seems certain to upset the conceptions of the capitalist held by the sophisticated observer of social conditions, with a knowledge of what economic determinism is. How shall we classify the exceptional social philosophy of Lord Leverhulme? Is he an idealist, a moralist, a Socialist, or a Bolshevist?

Lord Leverhulme is certainly not the conventional idealist with a vague, emotional, and impractical idealism. These addresses rather are full of earmarks of the practical. Our author seems to be thinking all the while of how his schemes will work and addresses himself to the immediate practical questions of British industrial life after the war. And as a successful manufacturer he has put into practice many of his schemes and seems to be advocating their general applicability.

Do these enlightened industrial views of Lord Leverhulme spring from a religious source or moral incentive? No doubt there may be some religious or moral motive operating in the formation of these views, but they do not seem to be the big controlling motivation. Of course, in trying to answer this question, a good deal depends upon one's conception of the nature of religion and of morals. But in our society we do have certain religious and moral enthusiasts whose

attitudes on social problems seem to be brought about by ideas of right and wrong and by a keen sensitiveness to injustice, which ideas they feel ought to apply in our industrial life more or less irrespective of circumstances. Lord Leverhulme is certainly not a moral or religious fanatic. He has visions of a better and happier world and he is eager to bring about better living conditions for humanity. But he is not a sentimentalist as we conventionally use the term. He rather appears to be a hard man. "There could be no worse friend to labor than the benevolent, philanthropic employer who carries his business on in a loose, lax manner showing 'kindness' to his employees."

If Lord Leverhulme's views are not to be classified as those of the conventionally conceived moralist or religionist, do they make him out to be a Socialist or a Bolshevist? Does he desire primarily the control and ownership of industry by labor, and is he endeavoring essentially to bring this condition about? There are various remarks scattered here and there throughout his addresses in which he contemplates a situation in the perhaps distant future where workmen will control or help to control industry and may perhaps own it. But these views are not the central theme, nor particularly labored. Rather they are incidental remarks as a gesture in his address or to round off the peroration. Although advocating a share in the profits, sharing management is not looked upon with much favor. He says:

In my opinion all attempts that would mean the introduction of workmen upon boards of directors, unless coupled with giving them a training in the higher branches of work, will be futile. It is utterly impossible to take an ordinary rank-and-file worker and make a director out of him. * * * Real copartnership means not only sharing in the profits but also sharing in certain duties which a mere workman could not possibly properly understand.

The author admits, however, that under the six-hour day and an excellent system of education workmen may travel in the direction of developing ability to manage industry. Lord Leverhulme, like so many successful capitalists, is a great admirer of genius and considers that a high correlation exists between ability and success. While he does not state that success is a measure of ability, yet the ability of successful captains of industry is, one feels, fully appreciated by him in contrast with the far lesser ability of the mere workman. One's inherent ability, the native ability of the biological man, it somehow seems to him, is nearly the same as one's ability in cultural achievement. His recognition of ability is seen in his division of the industrial process not into two factors, capital and labor, but into three, capital, labor, and management. The inequalities in opportunities for cultural advancement are perhaps recognized partly by him, but under his program as presented in the opening paragraphs of this review, the existing order would seem to be so adequately improved as to remedy these inequalities in oppor-

tunities for cultural achievement. Lord Leverhulme is therefore not a revolutionist in the sense that he would change the existing order of society fundamentally as regards the organized control of industry. He would change the conditions of industrial life in such fashion that the life of the workingman under the six-hour day and copartnership would be much richer, but the control and management of industry would be fundamentally very much as now except that through education, leisure, and more equalized opportunity, workmen might grow to participate more in the management. The last chapter of the book contains an exceedingly vigorous attack on socialism made in a lecture to his employees.

How, then, is this able and brilliant program against the social ills of industrial life to be classified? It seems that the big idea in it is the same as the idea in welfare work in general. The chief difference between Lord Leverhulme's program and welfare work as now practiced is that this venturesome reformer-capitalist carries the idea to the *n*th degree and applies the idea to society as a whole as well as to particular industries. His proposals are chiefly, (1) the six-hour day and (2) copartnership, plus a number of less fully discussed recommendations, such as good housing, education, taxation reforms, and others. These proposals, if functioning as he conceives that they would function, would be "good business." Under them profits would be increased and industries would produce more and "more money would be made." These reforms would pay just as it pays to feed well a horse you own, or just as it pays the owners of a department store to provide lockers and rest rooms for their girl workers.

One is naturally curious to know how this practical business man figures out that the six-hour day will pay. It will pay, he estimates, in those industries where the cost of overhead charges is equal to the cost of wages, if the machinery is worked through two six-hour shifts instead of through only one eight-hour shift, the advantage being gained through increasing production by working a longer time the machinery, which does not suffer from fatigue and which is usually scrapped before it is worn out. Thus, as an illustration, consider the industry working the eight-hour day and producing 1,000 items at a cost for overhead of \$1,000 and at a cost for labor of \$1,000, a total cost of \$2 an item. If, now, two six-hour shifts are worked, paying the employee the same wage for six hours as for eight, the production will be 1,500 units (assuming there is no increase in efficiency) and the cost for labor would be \$2,000 and the cost for overhead \$1,000, or again a cost of \$2 an item. Thus there would be no loss under the two-shift six-hour day, even where there is no increase in efficiency. But the author introduces several pages of evidence to show that the workmen will produce more per

hour under the six-hour day than under the eight-hour day. If such should be the case, if 2,000 items should be produced, then the cost per item would be \$1.50. In other words, under the two-shift six-hour day, the same wages could be paid for six hours' work as for eight and the product manufactured at a cheaper cost.

An appraisal of the merits of this plan should of course consider a number of factors, such as the labor supply, the ratio of cost on capital outlay to wages, the nature of the particular machinery and productive process, the market possibilities, and so on. In England, however, the returning soldier makes the labor supply for the two shifts, and the inefficiency of labor there is an acute issue which would undoubtedly be improved by this plan. Some consideration should also be given to the rapidity with which the scheme might be developed. Two working shifts, paid the same amount for six hours as for eight, if generally adopted, would do a good deal toward developing a market. Unfortunately neither detailed consideration nor data are furnished, and no record is set forth of actual experiments. So a careful evaluation of the plan can not be made, but the abbreviated presentation sounds very attractive, indeed.

Somewhat more careful consideration is given in the book to the copartnership plan. A record of his own experience in his own plant is furnished. To the manufacturer wishing to adopt some plan of profit sharing, a good deal of valuable detailed information as to various plans and experiments are contained in these chapters. The general conclusions seem to be the following: A plan of profit sharing can be worked out, though it is by no means easy to do. Such a plan should be based on the prevailing rate of wages and should not be a substitute for higher wages, and should be no bar to increases in wages. There was some danger of speculation by the employees in his earlier plans; and experience seemed to indicate that in so far as the voice of labor was expressed it was timid as to developmental plans and ventures of the business. Copartnership, as it is called, pays because of the interest in productivity and in the business generally that is stimulated. Profit sharing where the profits are shared and nothing is received in return by the profit sharer our author calls philanthropy and not good business. On the other hand, a share in the management can be delegated only where the workmen will actually share in losses, and this our author thinks impractical. So between these two ideas is his idea of copartnership where the men share in the prosperity of the company and in return help to make that prosperity by increased interest and efficiency.

So much for this advanced welfare work idea as applied to industry. As extended to society as a whole there are some very interesting theories. According to Lord Leverhulme, industrial

success is concerned quite as much with consumers as producers. Many leaders of industry have seemed primarily concerned with production, and their interest in consumption consists largely in marketing. Lord Leverhulme seems to have a broader conception of marketing and makes his social philosophy turn a good deal on this point of consumption. Raising the standard of living means creating a market. Hence higher wages are good because they make a better market. "Ninety per cent of the consumers of the United Kingdom are workers." The six-hour day means two more hours of leisure, which furnish opportunity for education, the higher life, and the expenditure of more money, thus improving the market. The plan of two shifts means enabling the nonspending unemployed to become consumers and thus to develop the market. It also increases the purchasing public. Copartnership not only stimulates efficiency, but it means more money for the "90 per cent of the consumers" to spend in the market. Lord Leverhulme is just as much interested in production and efficiency, which has of course a much more familiar sound to us than the marketing problem. He is very jealous of good production. He does not favor an excess profit tax for fear it may lessen productivity, though he favors income and inheritance taxes. The author's conception of reform is along lines of increased production of commodities of wealth at a lessening cost of production per unit at the same time shortening hours of labor and paying higher wages. The foundation stone is increased production.

Thus it comes about that this new idea is born, that the conception in welfare work may be applied to consumption as well as to production, and, when applied to consumption in society as a whole, it leads to an industrial viewpoint which favors shorter hours, higher wages, and profit sharing.

The owners of capital in our industrialized countries have been divided into two classes—the conservatives or Bourbons and the advocates of the new capitalism, sometimes called the liberals. These interesting proposals of Lord Leverhulme for our industrial and social life should probably be construed as the most advanced expression of a domestic program of the new capitalism. As such it will make very interesting reading for the members of our chambers of commerce and manufacturers' associations.

WAGES AND HOURS IN THE BOOT AND SHOE INDUSTRY IN 1918.

An investigation of wages and hours of labor in the boot and shoe manufacturing industry was made by the United States Bureau of Labor Statistics in the early part of 1918. The inquiry disclosed that wages had made a decided increase over 1916, the date of the last survey in the industry made by the Bureau, and that the regular hours of labor had decreased to some extent during the same period. The extraordinary rise in wages is due mainly to war conditions and prevails in practically all industries.

The table which follows shows the average full-time hours per week in the establishments covered and the average number of hours per employee actually worked during one week in the early part of 1918. The difference between these averages represents the average number of hours per week lost. The average amount it is possible to earn per week when working full time and the average amount actually earned per employee during one week are also shown. The difference represents the average amount lost by reason of not working full time.

AVERAGE FULL-TIME HOURS, HOURS ACTUALLY WORKED, FULL-TIME WEEKLY EARNINGS, AND AMOUNTS ACTUALLY EARNED DURING ONE WEEK, 1918.

Department, occupation, and sex.	Number of establishments.	Number of employees.	Average full-time hours per week of establishments.	Average hours actually worked per employee during one week.	Average full-time weekly earnings.	Average amount actually earned per employee during one week.
CUTTING DEPARTMENT.						
Cutters, vamp, and whole shoe, hand, male.....	109	2,263	51.9	46.6	\$25.16	\$22.46
Cutters, vamp, and whole shoe, machine, male.....	63	1,169	52.1	48.2	23.86	21.12
Skivers, upper, machine, male.....	23	96	50.9	46.4	21.55	19.50
Skivers, upper, machine, female.....	116	668	51.7	46.8	13.82	12.51
SOLE-LEATHER DEPARTMENT.						
Cutters, outsole, male.....	73	410	52.1	49.8	20.98	20.30
Channelers, insole and outsole, male.....	116	259	52.5	49.6	22.51	21.10
FITTING OR STITCHING DEPARTMENT.						
Tip stitchers, female.....	119	419	51.8	46.7	14.98	13.51
Backstay stitchers, female.....	118	535	51.8	47.0	13.58	12.31
Lining makers, female.....	125	1,097	51.4	46.2	12.44	11.17
Closers-on, female.....	87	344	52.0	46.5	12.30	11.02
Top stitchers or undertrimmers, female.....	129	1,315	51.6	47.2	14.55	13.42
Button fasteners, female.....	61	99	52.7	47.7	12.05	11.00
Buttonhole makers, female.....	80	137	52.2	46.9	13.67	12.26
Eyeletters, female.....	87	216	51.7	47.3	13.58	12.68
Vampers, male.....	81	565	51.4	48.3	22.81	21.45
Vampers, female.....	125	1,406	51.7	45.6	16.24	14.38
LASTING DEPARTMENT.						
Assemblers for pulling-over machine, male.....	95	697	52.5	47.3	\$20.92	\$18.81
Pullers-over, hand, male.....	35	344	51.7	48.4	24.62	22.85
Pullers-over, machine, male.....	117	586	52.6	48.5	26.75	24.57
Side lasters, hand, male.....	41	386	51.8	48.2	22.63	21.15
Side lasters, machine, male.....	54	284	52.2	49.0	24.39	22.99

AVERAGE FULL-TIME HOURS, HOURS ACTUALLY WORKED, FULL-TIME WEEKLY EARNINGS, AND AMOUNTS ACTUALLY EARNED DURING ONE WEEK, 1918—Concl'd.

Department, occupation, and sex.	Number of establishments.	Number of employees.	Average full-time hours per week of establishments.	Average hours actually worked per employee during one week.	Average full-time weekly earnings.	Average amount actually earned per employee during one week.
LASTING DEPARTMENT—concluded.						
Bed-machine operators, male.....	98	1,265	52.1	48.8	\$25.97	\$24.37
Hand-method lasting-machine operators, male.....	54	390	52.8	47.7	25.38	23.09
Turn lasters, hand, male.....	33	729	53.8	50.6	24.37	22.90
Turn sewers, male.....	24	65	53.6	51.2	26.82	25.63
BOTTOMING DEPARTMENT.						
Goodyear welters, male.....	88	455	52.2	47.1	32.35	28.84
Rough rounders, male.....	92	275	52.4	48.4	32.06	28.39
Goodyear stitchers, male.....	98	658	52.3	48.7	27.56	25.69
McKay sewers, male.....	58	196	52.8	48.2	23.58	21.32
Heelers, male.....	130	404	52.7	49.1	26.36	24.65
Heelers, wood, male.....	18	248	54.1	52.2	25.61	24.56
Heel trimmers or shavers, male.....	122	342	52.6	48.8	28.07	26.25
Heel breasters, male.....	107	210	52.8	48.7	21.81	20.19
Edge trimmers, male.....	131	981	52.4	48.3	28.51	26.32
Edge setters, male.....	132	892	52.6	48.9	27.68	25.75
Heel scourers, male.....	122	453	52.6	48.4	22.98	21.23
Heel burnishers, male.....	123	314	52.7	48.5	22.72	21.00
Buffers, male.....	124	463	52.6	48.5	22.28	20.64
FINISHING DEPARTMENT.						
Treers or ironers, hand, male.....	111	1,143	52.3	49.1	21.20	20.07
Treers or ironers, hand, female.....	29	205	53.3	48.7	12.21	11.33
Treers or ironers, machine, male.....	23	215	52.5	49.5	19.36	18.20
OTHER EMPLOYEES (ALL DEPARTMENTS).						
Male.....	136	22,394	52.7	48.9	17.23	16.24
Female.....	135	15,187	51.8	47.3	11.79	10.81

The following table shows the relative full-time hours per week, rate of wages per hour, and full-time weekly earnings each year from 1910 to 1914 and in 1916 and 1918. No data were obtained for 1915 and 1917. The table also shows for each item the per cent of increase or decrease in 1918 as compared with each specified year and the per cent of increase or decrease in each year as compared with the preceding year. Thus, in 1918 as compared with 1916, the date of the last survey made by the Bureau in this industry, there was a decrease of 4 per cent in hours per week, an increase of 31 per cent in wages per hour, and an increase of 25 per cent in weekly earnings. Comparing 1918 with 1913, the year preceding the outbreak of the war, there was a decrease of 5 per cent in hours per week, an increase of 40 per cent in wages per hour, and an increase of 34 per cent in weekly earnings.

RELATIVE FULL-TIME HOURS PER WEEK, RATES OF WAGES PER HOUR, AND FULL-TIME WEEKLY EARNINGS, 1910 TO 1918, TOGETHER WITH PER CENT OF INCREASE OR DECREASE IN SPECIFIED YEARS IN THE INDUSTRY.

Year.	Hours per week.			Wages per hour.			Weekly earnings.		
	Relative full-time hours per week (1913=100).	Per cent of increase (+) or decrease (-) in—		Relative rate of wages per hour (1913=100).	Per cent of increase (+) or decrease (-) in—		Relative full-time weekly earnings (1913=100).	Per cent of increase (+) or decrease (-) in—	
		1918 as compared with each specified year.	Each specified year as compared with year preceding.		1918 as compared with each specified year.	Each specified year as compared with year preceding.		1918 as compared with each specified year.	Each specified year as compared with year preceding.
1910.....	103	-7	.....	90	+56	.....	92	+46	.....
1911.....	103	-7	(¹)	92	+53	+ 2	94	+43	+ 2
1912.....	101	-6	-2	93	+52	+ 1	93	+44	- 1
1913.....	100	-5	-1	100	+40	+ 8	100	+34	+ 7
1914.....	99	-4	-1	101	+39	+ 1	100	+34	(¹)
1916.....	99	-4	(¹)	107	+31	+ 6	107	+25	+ 6
1918.....	95	.....	-4	140	.....	+31	134	.....	+25

¹ No change.

In 136 establishments reporting 60,779 employees, 52 per cent worked full time and 48 per cent less than full time. Thirty-seven per cent worked 75 per cent and under 100 per cent of full time; 7 per cent worked 50 per cent and under 75 per cent of full time, and 4 per cent worked less than 50 per cent of full time.

WAGES AND LABOR CONDITIONS IN GOLD MINING.

A committee appointed by the Secretary of the Interior to study the gold situation in the United States submitted its report to the Secretary on October 30, 1918.¹ This report will soon be printed by the Bureau of Mines. It contains some information bearing upon the labor situation in the gold-mining industry of the United States.

The rapid production of gold in the United States in the last 25 years, the report notes, has not kept pace with the production of coal, iron, copper, or petroleum, or the rapid growth of bank deposits. The principal cause of this relative decline in gold production the committee ascribes to the shortage of labor. Other causes are mentioned, such as the lower efficiency of available labor, the great increase in the cost of supplies, and the higher cost of power. Depletion of certain ore deposits and the lower grade of ore mined in others have also been factors. In California large gold mines were reported to be running at from 10 to 40 per cent below the normal number of

¹ Report of the committee appointed by the Secretary of the Interior to study the gold situation. Washington, D. C., Oct. 30, 1918.

their employees. A decrease of 26 per cent in the number employed has taken place since 1917. This was in October, 1918. In the Cripple Creek district, Colorado, one of the larger companies was running at 54 per cent of its minimum requirements for maintaining normal production and development. The number of persons employed in gold mining in the gold-producing States in 1916 was 42,942; this had declined to 34,277 in 1917.

Estimates by producers regarding the efficiency of present-day labor in the gold mines are to the effect that labor is 10 to 50 per cent less efficient. These are rough approximations and no data are presented to show the present per man per day production as compared with that in the past.

Among the principal causes for the waning supply of labor in gold mining has been increasing wages in the face of a uniform price for gold, which is fixed by law. The report presents an interesting table of miners' wages in certain branches of the metal mining industries where gold is a direct or a by product. The table has been prepared by the engineer of the California Metal Producers' Association. The wages shown are for the month of September in each of the years 1913 to 1918, inclusive.

RATES OF WAGES PER DAY IN CERTAIN BRANCHES OF METAL MINING WHERE GOLD IS A DIRECT OR BY PRODUCT, SEPTEMBER, 1913 TO 1918.

	September, 1913.			September, 1914.			September, 1915.		
	Ma- chine men.	Hand min- ers.	Muck- ers.	Ma- chine men.	Hand min- ers.	Muck- ers.	Ma- chine men.	Hand min- ers.	Muck- ers.
<i>Copper mining.</i>									
Montana (Butte district).....	\$3.70	.....	\$3.70	\$3.50	.....	\$3.50	\$3.83	.....	\$3.83
Arizona:									
Bisbee, Phelps-Dodge Corporation.	4.00	.....	3.75	4.00	.....	3.75	4.10	.....	3.85
Verde.....	3.75	\$3.50	3.00	{ 3.50 3.75	{ 3.50 3.50	{ 2.75 3.00	3.50	{ \$3.25 3.75	{ 2.75 3.25
Utah:									
Bingham-Utah Copper Co.....	3.25	{ 2.75 3.00	2.75	3.25	{ 2.75 3.00	2.75	3.50	{ 3.00 3.25	3.00
General average.....	3.25	{ 3.00 3.25	3.00	3.25	{ 3.00 3.25	3.00	3.25	{ 3.00 3.25	3.00
Nevada (Ely district).....	3.25	.....	2.50	3.25	.....	2.50	3.25	.....	2.50
California (all districts).....	3.25	.....	2.50	3.25	.....	2.50	3.25	.....	2.50
<i>Copper and gold mining.</i>									
Washington.....	3.50	3.50	3.00	3.50	3.50	3.00	3.50	3.50	3.00
<i>Silver and gold mining.</i>									
Nevada:									
Tonopah.....	4.50	4.50	4.00	4.50	4.50	4.00	4.50	4.50	4.00
Comstock.....	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
<i>Gold mining.</i>									
Nevada (Goldfield).....	4.00	4.00	3.75	4.00	4.00	3.75	4.00	4.00	3.75
Montana (Kendall, Barnes, King Development Co.).....	3.50	.....	3.50	3.50	.....	3.50	3.50	.....	3.50
California (Mother Lode and Grass Valley).....	{ 2.75 3.00	.....	{ 2.25 2.50	{ 2.75 3.00	.....	{ 2.25 2.50	{ 2.75 3.00	.....	2.50

RATES OF WAGES PER DAY IN CERTAIN BRANCHES OF METAL MINING WHERE GOLD IS A DIRECT OR BY PRODUCT, SEPTEMBER, 1913 TO 1918—Concluded.

	September, 1916.			September, 1917.			September, 1918.		
	Ma- chine men.	Hand min- ers.	Muck- ers.	Ma- chine men.	Hand min- ers.	Muck- ers.	Ma- chine men.	Hand min- ers.	Muck- ers.
<i>Copper mining.</i>									
Montana (Butte District).....	\$4.42	.....	\$4.42	\$5.00	.....	\$5.00	{ \$5.25	.....	\$5.25
Arizona:							{ 5.75	.....	5.75
Bisbee, Phelps-Dodge Corporation.....	5.32	.....	5.07	5.60	.....	5.35	5.50	.....	5.25
Verde.....	{ 4.00	{ \$3.75	{ 3.25	{ 5.00	{ \$4.25	{ 4.25	{ 5.15	{ \$5.15	{ 5.15
Utah:	{ 5.00	{ 4.50	{ 4.25	{ 5.50	{ 5.50	{ 5.50	{ 5.90	{ 5.90	{ 5.90
Bingham-Utah Copper Co.....	{ 3.75	{ 3.25	{ 3.25	{ 4.50	{ 4.00	{ 4.00	{ 4.75	{ 4.50	{ 4.25
General average.....	{ 4.25	{ 3.75	{ 3.75	{ 4.50	{ 4.25	{ 4.00	{ 5.25	{ 5.00	{ 4.75
General average.....	{ 3.25	{ 3.00	{ 3.00	{ 4.50	{ 4.25	{ 4.00	{ 4.75	{ 5.00	{ 4.75
General average.....	{ 3.75	{ 3.75	{ 3.50	{ 5.25	.....	.....	{ 5.75	.....	.....
Nevada (Ely district).....	.....	.....	.....	.....	.....	.....	.....	.....	.....
California (all districts).....	{ 3.25	{ 3.00	{ 2.50	{ 3.75	.....	{ 3.50	{ 4.00	{ 3.75	{ 3.50
<i>Copper and gold mining.</i>	{ 3.75	{ 3.25	{ 3.00	{ 4.00	.....	.....	{ 4.50	{ 4.25	{ 4.00
Washington.....	3.50	3.50	3.00	4.00	4.00	3.50	5.00	5.00	4.50
<i>Silver and gold mining.</i>									
Nevada:									
Tonopah.....	4.50	4.50	4.00	5.00	5.00	4.50	5.50	5.50	5.00
Comstock.....	4.00	4.00	4.00	4.00	4.00	4.00	5.00	5.00	5.00
<i>Gold mining.</i>									
Nevada (Goldfield).....	4.00	4.00	3.75	4.00	4.00	3.75	4.00	4.00	3.75
Montana (Kendall, Barnes, King Development Co.).....	{ 3.50	.....	{ 3.50	{ 4.00	.....	{ 3.50	{ 4.00	.....	{ 4.00
California (Mother Lode and Grass Valley).....	{ 3.00	.....	{ 2.50	{ 3.25	.....	{ 2.75	{ 3.50	.....	{ 3.00
General average.....	{ 3.25	.....	{ 2.75	{ 3.50	.....	{ 3.00	{ 4.00	.....	{ 3.50

The committee makes certain recommendations affecting the labor supply. These recommendations were made during the period of war and have at present somewhat lost their applicability. It was recommended, for instance, that exemption from the draft and deferred classification be more generally applied to those desiring to enter the industry. The United States Employment Service, it was suggested, could arrange to return experienced men to the mines, and the Government could permit the return of drafted men on furlough to work at gold mines, or might detail sufficient numbers of the men from selective-draft reserves for the same work. Only those persons willing were to be furloughed and they would be properly cared for and paid a proper wage fixed by the Government.

The importation of labor such as Chinese and Mexican is recommended by the report.

The committee in conclusion recommends a thorough study of the mining industry with a view to improving mining conditions.

WAGES OF FARM LABORERS IN CANADA IN 1917.

A statement of average wages of farm workers in Canada is given in a recent report of agricultural statistics compiled by the Dominion Bureau of Statistics, covering the year 1917.¹ From this report it appears that the wages per month of farm help during the summer, including board, averaged \$63.63 for males and \$34.31 for females,

¹ Data taken from the Canadian Official Record (Ottawa), for Feb. 18, 1919.

as compared with \$43.23 for male help and \$22.46 for female help during 1916. For 1917, including board, the yearly wages averaged \$610.60 for males and \$364 for females, as compared with \$397 and \$228 in 1916. The average value of board per month was returned as \$19.44 for males and \$14.79 for females, as compared with \$17 for males and \$13 for females in 1916.

By provinces, the average wages per month for males and females, respectively, in the summer season, including board, are shown in the following table:

AVERAGE MONTHLY WAGES (INCLUDING BOARD) OF FARM WORKERS IN SPECIFIC PROVINCES OF CANADA IN THE SUMMER OF 1917.

Province.	Males.	Females.
Prince Edward Island.....	\$39.74	\$22.63
Nova Scotia.....	53.75	26.43
New Brunswick.....	57.19	28.14
Quebec.....	59.09	28.98
Ontario.....	59.00	31.96
Manitoba.....	69.97	40.28
Saskatchewan.....	73.21	41.09
Alberta.....	76.09	44.44
British Columbia.....	78.12	48.30

PAYMENT BY RESULTS.¹

In the early part of 1917 a scheme was inaugurated by Priestman Bros. (Ltd.) in the Holderness Foundry, Hull, England, which was to last for the duration of the war and which has been highly successful in establishing cordial relations between the firm and its employees. The details of the scheme briefly outlined are as follows:

The system is based on the principle that if a given number of men in a given time are capable of producing on the ordinary method of day rate working a certain quantity and type of finished machinery (called the "Standard output"), then if, by greater collective individual effort—that is, without increasing the number of men or working any longer hours per man—they can increase the output of such machinery, it is possible to advance their total day rate wages by a percentage equivalent to that by which the standard output has been increased.

A very important point is to settle a standard output which may be fair both to employers and employed, and under a scheme of this description there are alternative methods of calculating the output of the works; one is to take the average weight of finished machinery alone, and another the weight of finished machinery converted to a certain value of "points" for different weights and classes, and where there is an extensive variety in the size and type of machinery manufactured, as well as considerable fluctuations in the deliveries, we are of the opinion that the "point" method of arriving at the output possesses advantages on account of its greater flexibility.

A scheme formulated on the "point" system has two special features, inasmuch as it provides for (1) a standard automatically variable according to the number of man-hours worked, and (2) the allotting of variable values to certain classes of output, these values being converted into "points," which form the basis of the standard output.

¹ Based on a statement by Priestman Bros. (Ltd.), London, relative to a scheme of "payment by results," in effect at their works, Holderness Foundry, Hull, England. Oct. 24, 1918. 40 typewritten pages.

After careful investigation it was considered at the time that a standard of "average weight" alone should form the basis for the introduction of the system into our works, and by agreements with representatives of the men a certain weight of completed machinery packed and despatched per month is accepted as the standard unit.

As long as the number of men employed, the number of hours worked, and the plant utilized remain substantially the same as those on which the scheme is based, this standard weight is not altered, but the agreement provides that the standard weight is to be modified to bring it into line with alterations if the number of men and hours worked, or the method of manufacture, vary appreciably.

At the end of each four weeks the output in tons for that month is posted up after being verified by the works committee, and by as much as it exceeds the standard output, by so much per cent are the earnings of each employee increased for the four following pay days; if the output exceeds the standard by 25 per cent, then each man is credited with an extra 25 per cent over and above his earnings for that month, and so on.

The foregoing is the broad principle of the scheme, and while some variations in the details have been found necessary from time to time, no deviation has been made from the fundamentals of the scheme.

An agreement was drawn up and signed by officials of the various trades-unions, and the scheme received the sanction of the Ministry of Munitions.

After a very close examination into the output per man per hour as compared with the corresponding output prior to the introduction of the scheme and after making all allowances necessary in order to arrive at a fair comparison, the firm found that there has been approximately 40 per cent increase in the weight of work delivered.

The experience of the firm confirms the natural deduction that in case the class of work is approximately the same and the number of men employed and the number of hours worked do not exceed those which were worked in determining the standard weight output that the cost of labor per ton is no more than it would be under the ordinary day rates of working. In this particular instance, however, the 10 per cent concession which the firm granted the employees has increased the costs, although it is considered that having gained the confidence of the men this concession has become unnecessary. This concession of 10 per cent is added to the weekly wage of men and apprentices whether the fixed average weight is exceeded or not.

Men who were in the employ of the firm from the beginning of the scheme receive benefit up to the date of leaving and for one month after that date, the amount being forwarded at the end of the following month, but men employed after the inauguration of the scheme and who leave the firm's employ get the bonus only up to the time of leaving.

Members of the clerical force are paid their regular salaries plus 50 per cent, since it is realized that any scheme which did not allow the staff to participate on equal terms with the workmen would be sure to create dissatisfaction and that increased output means additional work for them as well as for the men in the shop.

An inquiry among employees seemed to show that the scheme created confidence and good will between employer and employees, that apart from the increase in wages it improves the tone of the works and increases the men's interest in their work and that it is a means of allaying labor unrest.

NUMBER OF WORKERS AND AMOUNT OF EARNINGS IN TEXTILE AND LEATHER TRADES, GREAT BRITAIN.

In the February issue of the British Labor Gazette (pp. 51-54) tables are published showing the number and earnings of workpeople in the textile and leather trades of the United Kingdom during the week ending January 25, 1919, and the percentages of increase or decrease as compared with the preceding month and with the same date in 1918. A summary table is reproduced herewith:

NUMBER OF WORKERS AND EARNINGS IN BRITISH TEXTILE AND LEATHER TRADES, WEEK ENDING JAN. 25, 1919.

Industry.	Workpeople.			Earnings.		
	Week ended Jan. 25, 1919.	Per cent increase (+) or decrease (-).		Week ended Jan. 25, 1919.	Per cent increase (+) or decrease (-).	
		Month ago.	Year ago.		Month ago.	Year ago. ¹
Cotton trade.....	93,390	(2)	- 4.7	\$975,933	(2)	+44.5
Preparing.....	21,939	(2)	+ 1.5	119,784	(2)	+55.3
Spinning.....	42,973	(2)	+ 1.8	239,480	(2)	+52.8
Weaving.....	10,867	(2)	- 8.4	492,489	(2)	+38.4
Other departments.....	9,262	(2)	- 5.2	118,660	(2)	+40.5
Not specified.....	8,349	(2)	-10.4	95,520	(2)	+41.7
Woolen trade.....	17,809	+0.4	- 2.5	166,478	- 1.3	+22.3
Wool sorting.....	534	- .2	- 1.8	5,207	- 6.2	+19.4
Spinning.....	4,649	+1.6	- .7	46,811	+ .9	+26.2
Weaving.....	7,136	- .7	- 2.2	59,444	- 2.9	+22.3
Other departments.....	4,692	+1.0	- 4.5	47,755	+ .8	+20.3
Not specified.....	798	- .4	- 2.9	7,261	-11.5	+14.3
Worsted trade.....	31,304	+1.2	- 2.0	269,424	- .6	+28.2
Wool sorting and combing.....	3,701	+ .1	- 3.2	41,331	- 4.3	+19.1
Spinning.....	14,905	+2.0	+ 1.2	103,695	+ 1.7	+34.8
Weaving.....	6,547	+ .4	- 3.5	63,381	- 1.3	+30.4
Other departments.....	3,542	+ .4	- 5.9	38,037	- .2	+19.7
Not specified.....	2,609	+1.8	- 8.7	22,930	- 1.9	+26.6
Hosiery trade.....	22,808	+1.9	- .6	166,575	- .3	+16.1
Jute trade.....	10,002	- .2	- 4.3	80,502	+13.8	+14.6
Preparing.....	2,253	+1.4	- 4.7	17,028	+16.1	+14.3
Spinning.....	2,555	-1.8	- 2.8	17,999	+12.7	+12.5
Weaving.....	3,445	- .1	- 4.4	26,829	+15.3	+13.7
Other departments.....	1,749	.....	- 5.4	18,736	+10.8	+18.1
Linen trade.....	35,536	+ .1	- 2.6	245,345	+ 1.3	+34.8
Preparing.....	5,699	-1.2	- 4.1	38,669	+ 2.4	+33.7
Spinning.....	10,574	+ .5	- 5.0	63,430	+ 2.7	+37.8
Weaving.....	11,757	- .3	+ 1.7	84,268	+ .2	+39.8
Other departments.....	4,953	.....	- 5.7	41,477	- 1.4	+24.7
Not specified.....	2,603	+3.0	- 2.2	17,500	+ 5.4	+30.2
Silk trade.....	7,267	+ .7	- 1.5	50,057	+ 1.7	+23.0
Throwing.....	982	+ .8	- 8.2	4,370	- .7	+14.5
Spinning.....	2,460	- .1	- 2.3	19,140	+ 2.3	+15.5
Weaving.....	2,015	+1.0	+ .2	13,874	+ 3.2	+34.8
Other departments.....	1,549	+1.1	+ 2.4	10,619	.....	+25.0
Not specified.....	261	+4.0	- 2.6	2,054	+ 1.0	+35.3
Lace trade.....	7,278	+ .2	- 8.1	56,184	+ 2.6	+ 4.7
Lavers.....	1,642	-4.9	- 9.0	13,719	- 4.9	- 1.8
Curtain.....	1,721	+3.1	-11.2	14,337	+10.3	+ 8.1
Plain net.....	2,868	+1.4	- 6.5	22,235	+ 4.4	+ 8.4
Other departments.....	1,047	+ .4	- 5.9	5,893	- 2.6	+ .1
Bleaching, dyeing, printing, and finishing.....	21,465	+ .5	- 6.9	274,271	- .4	+12.4
Bleaching.....	2,131	- .2	-14.2	20,235	+ 1.2	- .5
Printing.....	597	- .3	- .5	7,052	-12.3	+13.3
Dyeing.....	11,031	+ .6	- 6.9	165,845	+ .7	+14.7
Trimming, finishing, and other departments.....	6,279	+ .9	- 4.8	64,311	- 2.8	+ 9.4
Not specified.....	1,427	- .5	- 7.0	16,828	+ 2.2	+19.7
Foot and shoe trade.....	49,299	+1.1	- 3.5	465,671	- 1.4	+19.3
Shirt and collar trade.....	10,121	+1.0	+ .2	63,046	+ 1.1	+26.1
Tailoring trade (ready-made).....	25,967	-1.9	- 1.3	200,675	- 2.1	+18.0

¹ Comparison of earnings is affected by increases in rates of wages, including war bonuses.

² Figures not given because of the strike of spinners and card-room workers, which lasted from Dec. 9 to 13.

REDUCTION IN HOURS OF BRITISH WOOL-TEXTILE WORKERS.¹

The National Wool (and Allied) Textile Industrial Council at its meeting in Bradford on February 3 agreed to a 48-hour week for the operatives (the present average being 55½ hours). The original application of the operatives was for a reduction of working hours to 45 per week. This provisional agreement is subject to confirmation by the members of the organizations on each side, and will go into operation on March 3. The council also settled the apprenticeship question and that of the employment and pay of women who have taken the places of men during the war, these women not to be so employed after men become available. The adoption of piecework where possible, and a further advance in war wages to textile time workers, in line with that received by dyers and finishers under the existing sliding-scale agreement, were also matters that received attention.

The following is the text of the agreement on these points:

That on condition that the trade-unions agree to take all possible steps to insure that the greatest possible output will be secured and maintained, it is agreed:

1. That where the existing normal working week exceeds 48 hours it shall be reduced to 48 hours.
2. That this reduction shall come into force on March 3.
3. That the existing time rates of wages per week shall be paid for the reduced hours.
4. That piece rates shall be increased by the percentage reduction of hours, except that in the case of Wales the matter be referred to the Welsh District Council.
5. That the application of all clauses shall be decided by (a) the Master Dyers' Committee and representatives of the workmen's societies concerned; (b) the West of England District Council; (c) the Welsh District Council; (d) the British Wool Federation and trade-unions concerned; (e) the combing, carbonizing, spinning, manufacturing, and shoddy employers' representatives, and the representatives of the trade-unions concerned.

(The representatives are those on the council.)

The council next considered the question of piecework working, and finally resolved:

That the council, having considered the question of the extension of the piecework working, recommend the various sections of the industry to consider the adoption of piecework where possible.

As to training of ex-service apprentices, it is understood that a scheme will be made public after the approval of the Ministry of Labor has been received. In the meantime the understanding is that ex-service apprentices of 21 years of age and over should be paid wages to the extent of nine-twelfths of the journeyman's full rate. If after the scheme is approved, an apprentice is entitled to be paid more, the amount due him will be paid.

¹ Data furnished through State Department by the United States consul at Bradford, England, under date of Feb. 7, 1919.

The council considered and adopted as an agreement of the council, and subject to the continuance of certain existing agreements which related to the same matter, the following memorandum of agreement made between the various bodies of employers and workpeople in the worsted and woolen industries of the West Riding of Yorkshire in February, 1916:

1. That substitutions of men by women are temporary, and that those men who have joined His Majesty's forces shall be entitled to be reinstated in their former employments, if and when they return fit for resuming them. Men thus reinstated shall receive the rates of wages to which they would have been entitled had they remained in continuous employment. It shall generally be considered that a man who is discharged from His Majesty's forces without a pension shall be entitled to resume work at the standard rate of wages, other cases to be dealt with by the committee set up under the agreement.

2. That where new men are introduced into an occupation, such men shall be paid the local standard or scheduled rate for that occupation.

3. That where women, in consequence of this agreement, are employed to take the place of men, such women shall not continue to be so employed after men become available.

4. That where women are employed to take the place of men the rate of wages for such women shall be:

(a) If at piece rates, the same as for men, unless women's rates are already established for that class of work, provided no woman shall receive less than the district rate for women.

(b) If at time rates for day-time work, and one or more women replace an equal number of men, they shall be paid the same rate of wages now being paid to males for an equivalent quantity of work, and, in any case, not less than four-fifths of the rate previously paid to the men they replace.

(c) If at time rates for day-time work, and a larger number of women are required to replace a smaller number of men, the aggregate wages paid to the women shall not be less than the aggregate wages paid to the men they replace, and in no case shall the wage paid to an individual woman be less than four-fifths of the wages previously paid to the man replaced.

5. That where any workpeople are not fully employed through shortage of work, the women who have taken the places of men shall be the first to be discharged or suspended, provided that qualified men can be found to do the work.

6. That a central joint committee shall be appointed, consisting of seven representatives of the employers and seven of the workmen's representatives, the personnel of which may be changed from time to time by the two parties so far as their own representatives are concerned. The committee shall have power to add persons for the purpose of obtaining evidence in support of any claim. It shall also settle the interpretation of the foregoing clauses, and deal with any dispute that may arise, providing that such dispute can not be settled by a local joint committee of the employers and workmen's associations, and is referred by that joint committee to the central joint committee.

7. That where existing arrangements provide for the trade-union to act as the medium for the supply of labor, such arrangements shall not be affected by this agreement.

8. The conditions of employment embodied in this agreement are temporary, and designed only to meet the situation arising out of the war.

After the proceedings of the full council had terminated, a meeting of the Northern Counties District Council was held. It was resolved that the existing war wages of operatives coming within the scope of the awards made by the committee on production in respect of applications made for advances in war wages in November last, be advanced in proportion of 104 $\frac{3}{4}$ per cent to 107 per cent. This is the advance accruing to the dyers and finishers under a sliding scale regulating wages in that branch of the industry, the advance to come into operation on the first pay day in February. The effect of this advance is to raise the nominal prewar wages of all time workers by 2 $\frac{3}{4}$ per cent, with a maximum advance of 8 d. (16.2 cents) per week, and brings the various operatives in the spinning, combing and manufacturing departments into line with the new level of wages accruing to dyers and finishers as a result of the operation of the sliding scale in Yorkshire and Lancashire.

SHORTER WORKING DAY AND HIGHER WAGES IN HOLLAND.

Amsterdam and several other cities in Holland are reducing the working day of municipal employees from nine hours or more to eight hours, according to a report from the American consul at Amsterdam, received through the State Department. Simultaneously, the wages of such employees in Amsterdam are being readjusted on a higher basis, the lowest annual pay, for unskilled labor, being 1,264 florins (\$508). On account of the increased cost of living an allowance (*toeslag*) in addition to the fixed compensation had been made to municipal employees during the war. This amounted to a temporary increase of pay, but it is now supplanted by the increase of wages, which will presumably be permanent.

The eight-hour day, it is stated, has also been established in several Dutch factories during the past year. One of these factories reports that the experiment is successful, and that more work is now being done than was done with the former longer day. No adverse reports have yet appeared.

EIGHT-HOUR DAY IN PERU.

The American consul general at Callao-Lima, Peru, in a communication to the State Department dated January 21, 1919, and transmitted to this Bureau, states that the President of the Republic of Peru issued on January 15, 1919, a decree establishing an eight-hour day in all State industrial establishments or on public works. The text of this decree is as follows:

1. In State workshops, railways, agricultural, and industrial establishments, and in all public works undertaken by the State, a day's work is fixed at eight hours, present wages to continue.

2. In the case of factories, railways, agricultural, industrial, and mining establishments owned by companies or by private individuals, the duration of a day's work shall be decided upon by a mutual agreement entered into between the owners or managers on the one hand and their men on the other. If no agreement is arrived at, and until Congress legislates concerning the matter, the length of a day's work shall de facto follow the official regulation of eight hours per diem, present wages being continued.

3. The differences which may arise between the parties, due either to petitions for an increase of wages or to the new rates that must be established to keep such wages as they are, shall be resolved by arbitration whenever such parties can not arrive at a direct settlement. Each party shall appoint one arbiter and the third and deciding arbiter shall be appointed by the president of the Supreme Court. The arbiters must render a decision within a maximum period of eight days.

MINIMUM WAGE.

MINIMUM WAGE FOR OFFICE CLEANERS IN MASSACHUSETTS.¹

The Massachusetts Minimum Wage Commission has lately issued a decree concerning the wages of women employed as office and other building cleaners in Massachusetts. Following its established procedure, the commission, having found by inquiry and investigation that a number of women engaged in cleaning office and other buildings were receiving wages inadequate to maintain them in health, constituted a wage board early in 1918 to deal with the matter, consisting of six representatives of the employers, six of the employees, and three of the public. Its duties were "to consider the needs of the employees, the financial condition of the occupation, and the probable effect thereon of any increase in the minimum wage paid, and to endeavor to determine the minimum wage suitable for a female employee of ordinary ability in the occupation."

The board held its first meeting April 10, 1918, and took up first the needs of the employees. The following budget was decided upon as representing the minimum per week on which a self-supporting woman could live healthfully:

Board and room.....	\$7. 00
Clothing.....	1. 75
Laundry.....	. 30
Car fare.....	. 60
Church.....	. 13
Newspapers and magazines.....	. 11
Vacation.....	. 25
Recreation.....	. 20
Savings.....	. 25
Insurance.....	. 15
Doctor.....	. 25
Dentist.....	. 20
Incidentals.....	. 35
Total.....	11. 54

Taking up next the financial condition of the occupation, it was agreed that the cost of maintaining office and other buildings had increased considerably from 1913 to 1917, and that during this time the net income had decreased between 15 and 25 per cent. "It was agreed, however, that only a fundamental readjustment of the financial status of office buildings would solve their financial prob-

¹ Massachusetts Minimum Wage Commission. Statement and decree concerning the wages of women employed as office and other building cleaners in Massachusetts. Boston, Mass. 5 pp.

lems, and that the industry would not be injured by paying a minimum living wage to the cleaning women." The usual week's work in this occupation, it was found, consists of 36 hours.

When it came to fixing a minimum rate the board divided sharply, the representatives of the public and of the employees recommending a rate varying from 27 to 30 cents an hour, which would work out for the various classes at about \$12 a week, while the representatives of the employers recommended an hourly wage of 25 cents.

Faced by these opposing recommendations, the commission recommended the determinations to the board, and concessions were made on both sides, but still the two groups could not unite on a minimum satisfactory to both. The representatives of the public and the employees handed in the following recommendations:

The minimum wage to be paid to any female employed as an office or other building cleaner shall be as follows:

- (a) Between the hours of 7 p. m. and 8 a. m., 30 cents an hour.
- (b) Between the hours of 8 a. m. and 7 p. m., 26 cents an hour.

The employers' representatives recommended a flat rate of 26 cents an hour, producing \$10.92 for a 42-hour week and \$9.36 for a 36-hour week.

After public hearings the minimum wage commission issued, January, 1919, the following award:

1. No female of ordinary ability shall be employed between the hours of 7 p. m. and 8 a. m. at a rate of wages less than 30 cents an hour.
2. No female of ordinary ability shall be employed between the hours of 8 a. m. and 7 p. m. at a rate of wages less than 26 cents an hour.
3. A female employee of less than ordinary ability may be paid less than the prescribed minimum wage, provided that the conditions of the Acts of 1912, chapter 706, section 9, as amended, are complied with.
4. These recommendations shall take effect on April 1, 1919, and shall apply to all females then or thereafter employed.

Since, according to the findings of the board, the usual week's work in this occupation is 36 hours, this provides for the majority of workers a wage notably below the figure fixed by the board as the minimum on which a woman could maintain herself healthfully. Nevertheless it represents a great improvement over prevailing conditions. The earlier investigation¹ showed that more than four-fifths of the women studied were employed at night, and would therefore receive 30 cents an hour, making \$10.80 for a 36-hour week. The same investigation showed that the majority of the women considered—78.1 per cent—were receiving less than \$8 a week, and only 5.6 per cent received as much as \$9 or over per week. To the great majority therefore the new rates will mean a substantial increase in their weekly earnings.

¹ See "Office cleaning as an occupation for women," in MONTHLY LABOR REVIEW for October, 1918 (pp. 196-199).

WOMAN AND CHILD LABOR.

LABOR LAWS FOR WOMEN IN INDUSTRY IN INDIANA.¹

During the war, Gov. Goodrich, of Indiana, appointed a woman as a special industrial inspector for the State industrial board. This appointment, which is said to have been the first appointment of a woman to a position in connection with the administration of labor laws in Indiana, was made as a war emergency measure, but the result of the woman agent's activities brought into prominence the question of what permanent measures should be undertaken for the protection of working women when the war had ended. At the request of the governor of Indiana, and with the cooperation of the industrial board of the State, the Woman in Industry Service of the United States Department of Labor undertook a hasty survey of the industrial situation to see where the labor laws concerning women needed reenforcement or alteration. The work was carried on from November 20 to December 20, 1918, and covered 110 establishments, employing 12,300 women. A few hundred women employed in laundries, in the printing trades, and in transportation were included, but in general the survey dealt with manufacturing industries, since in these the problems affecting women seemed most urgent. The inquiry was limited mainly to hours and working conditions, as these are the subjects which in other States have longest been regulated by law.

HOURS.

Twelve States have laws forbidding all night work of women in at least one group of occupations, and Indiana is one of these. Six States have no laws limiting the number of hours per day during which a woman may be employed, and again Indiana is one of these. This curious mixture of progressiveness and backwardness seems to characterize the actual as well as the legal situation. The following table shows the length of the working day for women in 110 establishments reporting on this point:

¹ Labor laws for women in industry in Indiana. Report of a survey by the Woman in Industry Service, United States Department of Labor, as submitted to the governor of Indiana, Dec. 31, 1918. Washington, 1919. 29 pp.

LENGTH OF WORKING DAY FOR WOMEN IN 110 INDIANA ESTABLISHMENTS INVESTIGATED.

Length of working day.	Number of establishments.	Number of women employed.	Per cent of women in each specified group.
Less than 8 hours.....	2	164	1.3
8 and less than 9 hours...	16	1,517	12.3
9 and less than 10 hours..	58	7,802	63.4
10 hours and over.....	34	2,817	23.0
Total.....	110	12,300	100.0

It will be noticed that about one-sixth of the establishments investigated, employing over one-eighth of the women, were working less than the nine hours daily which is the shortest standard day yet fixed by any of the great manufacturing States; but on the other hand, approximately one-third of the establishments and nearly one-fourth of the women were working more than the 10-hour day, which is the highest limit permitted by any of Indiana's neighboring States.

The only restriction on the hours of labor for women in Indiana is the provision that in certain specified industries no person under 16 years of age and no female under 18 shall work more than 60 hours a week, or more than 10 hours a day, except for the purpose of making a shorter day on the last day of the week. Consequently, not only are the long hours shown in the above table perfectly legal, but when overtime becomes necessary they may be greatly exceeded without any violation of law. The following table shows the hours when overtime was worked:

MAXIMUM WEEKLY HOURS OF WORK IN 53 INDIANA ESTABLISHMENTS IN WHICH OVERTIME WAS REPORTED.

Maximum weekly hours, including overtime.	Number of establishments.	Number of women employed.
Less than 50 hours.....	3	450
50 and less than 55.....	1	150
55 and less than 60.....	21	3,198
60 and less than 65.....	15	2,540
65 and less than 70.....	6	1,372
70 and less than 75.....	1	83
75 and less than 80.....	2	142
80 and over.....	4	396
Total.....	53	8,331

WORKING CONDITIONS.

Although long hours were the most striking feature revealed by the survey, yet working conditions showed at least equal need of regulation. Indiana already has laws of which the intent is to secure safe and suitable working conditions for women, but the language used is so vague and general that enforcement of the law is very

difficult, and the maintenance of anything beyond the barest minimum depends upon the good will of the employer. Consequently, working conditions were found ranging all the way from those which would be creditable to any State to those which would be a disgrace to the most backward community. Protection against industrial accidents and dangers seems particularly insufficient.

CONCLUSIONS.

As a result of the survey, the investigators feel that there is need for new legislation on the subject. It is pointed out that without State restriction on hours woman workers are subjected to unduly long hours, and that without clearer definitions of standards of comfort, safety, and sanitation in the workrooms than those contained in the existing laws, conditions are often allowed to exist which are below a wholesome or decent minimum. The following recommendations are made:

Hours of work.—It is strongly urged that Indiana now join with those States which have placed their industries on the healthful and efficient basis of the eight-hour day.

Working conditions.—It is recommended that a bill be drawn embodying the best features of the laws of other States and the best practice in Indiana establishments, establishing a minimum of sanitation and comfort in factories, and that in addition the industrial board issue explicit recommendations for service facilities which it may not be advisable to include in the law at this time but which are desirable as standards to be advocated.

Administration of labor laws.—Three distinct tendencies are marked in the administration of labor laws in this country. The first is the enforcement of specific statutes enacted into law by the State legislature. The second is the establishment of an industrial commission without statutes to enforce, but with power to establish safe and healthful conditions through regulations having the force of law. The Wisconsin plan is an example. The third is the combination of the two, as in New York State, where the industrial commission has definite laws to enforce, but is instructed also to formulate codes which, after public hearings, become part of the labor law.

As it was not possible in this investigation to make a study of the administration of the laws of Indiana, and as the whole subject is very important, it is urged that provision be made for a thorough inquiry into the best form of administration for Indiana.

Meanwhile it is recommended that in view of the importance of the problems of women in industry, the industrial board be enlarged to include at least one woman in its membership, and that, when a study is made of the administration of the laws, attention be centered upon the desirability of establishing as in several other States a special bureau for women in industry, whose chief shall be directly responsible to the industrial board, with power adequately to safeguard the health of women workers in the State and to study their needs.

DOMESTIC SERVICE AND UNEMPLOYMENT AMONG ENGLISH WOMEN.¹

When, after the armistice was signed, work on munition contracts began to slow down, it was taken for granted that the women discharged would find employment in domestic service and laundry work, two occupations which had been crying out for workers in vain. The general phrase was that women would "return" to housework. The women themselves did not share this view. They pointed out in the first place that only a comparatively small proportion of their number had come from these lines of work and that there was no more reason for women from other callings to enter them than for discharged men to go into agricultural work, which, like domestic service, is seeking earnestly for recruits. And in the second place, they declared that domestic service as known before the war was an occupation in which the hours were so long, the wages so small, and the conditions of work so restrictive of liberty that no woman who could help herself would be likely to enter it until matters were improved.

As to the first point, there appears to be considerable truth in the claim. Figures published in 1917 show that in two leading branches of munition work—the metal and the chemical trades—only about one-fifth of the woman workers had formerly been employed in domestic service.² The proportion may have varied in other lines of munition work, but there is no reason to suppose that it was much higher. As to the second, it has always been a mooted point between employers and employees whether the conditions of domestic service are better or worse than those of other occupations open to women. In the present instance, the advantage of the argument seemed to lie with the potential workers, who simply did not enter the occupation.

Moved to desperation by lack of workers, the laundrymen sought Government assistance.

The Launderers' Association, in despair about the scarcity of workers, has taken the very strong and debatable course of appealing to the Ministry of Labor to bring pressure to bear on the women they want. It says indignantly that thousands of women and girls whose services are badly needed in many trades are enjoying a holiday at the taxpayers' expense, and it asks for the introduction of machinery to insure that the 25s. [\$6.08] a week should not be drawn by women able to obtain work at a reasonable rate.

They had hoped that the demobilization of munition workers would immediately ease the position, but they find that the laundry is as unpopular as the kitchen, and while unemployment pay lasts they can not get labor.³

Apparently no action was taken in response to this demand. The women, however, were quick to point out that the Government

¹ Compiled from English daily papers and trade-union publications.

² See "Women in the munition trades in Great Britain," in MONTHLY REVIEW, May, 1918, p. 153.

³ Manchester Guardian, Jan. 10, 1919, p. 4.

itself had raised the unemployment pay for women from 20s. (\$4.87) to 25s. (\$6.08) a week on the admitted ground that 20s. was not enough for a single woman to live on, and that, therefore, women could hardly be expected to enter laundries at 18s. (\$4.38) a week.

Private employers did not openly appeal to the Government to help them, but the workers claimed that the exchanges through which the out-of-work donation is paid were trying hard to force women into domestic service at insufficient wages. Complaints came in from many quarters that women applying for the unemployment pay were offered places as domestic workers at 10s. (\$2.43) or 12s. (\$2.92) a week, and if they did not accept they were refused the out-of-work pay. Where the women were well organized or had strong supporters, this line of action was so vehemently opposed as to be hardly practicable. Eventually the subject was brought up in Parliament.

In answer to a question, Mr. J. Parker, replying for the Ministry of Labor, said he was aware there was a shortage of domestic servants and that many girls who had been engaged on munition or other war work were reluctant to return to domestic service. The chief reason seems to be that the terms and conditions offered were not regarded as sufficiently attractive. Applicants who refused offers of suitable employment in domestic service were not entitled to remain in receipt of out-of-work donation. He was satisfied that the real remedy lay in a substantial improvement in the general level of the terms and conditions of domestic service. There was no statutory power to deal compulsorily with this matter, but the department was considering what steps it might be possible to take to secure an improvement by voluntary action.¹

This response was not particularly helpful, as it left unsettled the question of what should be considered "suitable employment." The workers maintained that an occupation which paid an insufficient wage could not be considered suitable, and there was sharp divergence between them and the employers as to what is a sufficient wage. The daily papers contain numerous advertisements for experienced and reliable servants at wages ranging from 10s. (\$2.43) a week upward; 13s. (\$3.16) a week is a common figure, while 18s. (\$4.38) seems to be looked upon as almost a maximum to be reached only by long service. The workers themselves have in several documents fixed 15s. (\$3.65) a week as a proper minimum wage for a woman who "lives in." Wages, however, are not the only or even the most important point on which the workers and employers are at odds. Early in January one of the morning papers printed a survey of the situation made by its correspondents in a number of munition centers. Everywhere the tale was the same; the women were seeking work in every direction except the household. As a result of the survey the conclusion is reached:

¹ Questions in Parliament, Feb. 19, 1919.

It is evident that if the ranks of our house servants are to be kept up, the conditions will have to be vastly different from those which prevailed before the war. Wages have risen, as a matter of course, and will not go down; but more vital, from the women's point of view, is the demand that something of the liberty that has been enjoyed while on munition work shall be granted to them in domestic service if they are to be tempted back to it.¹

This conclusion is strengthened by the fact that the women in the army, navy, and aerial forces who are doing cooking, cleaning, etc., under standardized conditions seem entirely satisfied with their positions and are making no effort to be demobilized. Evidently it is not the work itself to which objection is made, but the conditions under which it is done, and a number of schemes have been put forward dealing with possible changes in these.

The Fabian Women's Group, for instance, proposed that the Government should retain some of the hostels established for women munition workers, and use them as training centers for domestic workers. Each hostel should have a general training department, and in addition should maintain a national kitchen and restaurant to give practical training in cooking. A crèche and day nursery should be added, to give training for nursery work. Women should be trained for different grades of household work, and the hostel might maintain a corps of experienced workers who should be sent out by the day or hour.

Even while the war was still in progress the Women's Industrial Council had prepared a plan, which, as soon as the armistice was signed, they forwarded to the Government departments concerned, suggesting that by some such means it might be possible to direct discharged munition workers into domestic service. As a first step under this plan the minister of labor would set up a trade committee on daily domestic service, in which representatives of the workers would be included. This committee would consider standard conditions of employment, means of enforcing the standard conditions decided upon, effective means of inducing workers formerly in domestic service to take it up again, and the best means of inducing employers to accept the present altered conditions. Especially they would try to induce employers to engage daily workers instead of expecting the domestic to "live in." The council, having made an extended inquiry into domestic service, suggested the following as possible standard conditions to be adopted by the committee:

- (a) A minimum wage of 30s. [\$7.30] per week of 48 hours, exclusive of mealtimes, rest times, and holidays.
- (b) Working hours to be arranged so as to allow for one whole holiday or two half holidays per week.
- (c) Overtime to be paid for at a higher rate per hour.
- (d) Where meals are provided an agreed sum to be deducted from the worker's wage.

¹ Telegraph, Jan. 4, 1919.

A considerable part of the difficulties of the present situation, the council thinks, could be eliminated by the establishment of household orderly corps, for which it offers the following suggestions:

1. Centers to be established in residential districts from which domestic workers are supplied by the hour. Each center to be financially self-supporting.
2. A guild of employers to be formed who pay an annual subscription of £2 2s. [\$10.22] or who take shares.
3. The workers to be enrolled in a corps and paid 30s. [\$7.30] by the management for a week of 48 working hours. Workers provide their own lodging, laundry and food.
4. A board of management to be established in connection with each center, which shall select a chairman and treasurer and appoint a secretary-manager. It shall take adequate steps to ascertain and give effect to the views of the workers as well as those of the employers.
5. Charges to employers, wages, hours, overtime charges, mealtimes, uniforms, and holidays of the workers shall be fixed by the secretary-manager, under the control of the board.
6. Each employer and each worker shall be provided with a time sheet, stating the hour when the work began and ended.
7. Complaints on either side should be made to the manager. Disputes between employers and workers to be settled by the board of management, which shall have power to terminate membership of employers or workers.
8. Workers will be required to wear the uniform of the corps while on duty.
9. One hour off for dinner and half an hour each for breakfast and tea and supper shall be allowed to the worker at such times as may be mutually convenient. The workers can either—
 - (a) Bring their own food.
 - (b) Go out for meals.
 - (c) Arrange for the employer to supply them.
10. Workers shall be entitled to two weeks' holiday on full wages each year, and to one whole day or two half days each week, determined beforehand,

No statement has appeared giving the response of the Government to this proposition, but up to date no such committee has been announced. Among the workers, however, the idea of an organized form of service, with definite hours, wages, and conditions of work has evidently found favor. The Labor Woman for February, 1919, under the title "A charter of emancipation" contains a plan drawn up by a group of labor women, discussion of which is invited. As a first step toward bettering conditions, this plan urges that the workers should "live out" either in their own homes or in hostels. In the country, it is admitted, living out might prove impossible.

In cases where living in is necessary or preferred, an estimate must be arrived at as to the amount which board and lodging should reach, and wages regulated accordingly. In such cases the worker's bedroom should be regarded as her own, and complete privacy should be given her, while the hours in which she is off duty should in the same way be regarded as at her own disposal and free from interruption.

Wages should be paid on either an hourly or a weekly basis. In the former case, the minimum should be 9d. (18.3 cents) per hour, in the latter, 35s. (\$8.52) per week. Hours should be not more than 8

a day, within a period of 12 hours, mealtimes and rest times not to be included in the 8 hours. Overtime should be paid for at an extra rate. If the mistress desires a uniform, she should furnish it. It is recognized that this standard of hours would not be practicable in the case of children's nurses, attendants for sick or old people, and in some other instances. Such exceptions could be provided for as the need arose. The present plan is intended to introduce some basis of order; once that is secured, it will be easy to deal with exceptions.

By way of enforcing better conditions, former domestic workers are organizing, and organized labor is taking an active part in the controversy. In Sheffield the Workers' Committee organized a series of meetings, principally in the open air, "to advocate, amongst other things, that domestic service should be placed on an eight-hour basis, with a minimum wage of 8d. (16.2 cents) an hour." At a mass meeting of unemployed women held at Albert Hall, February 15, 1919, the domestic workers were among those presenting their cause:

Miss J. Stephen, representing the domestic workers, said that many hundreds of girls were being refused the unemployment donation because they refused to go into domestic service at 10s. or 12s. [\$2.43 or \$2.92] a week. The Domestic Workers' Union demanded the right to live and the right to leisure. It wanted a proper wage and an eight-hour day. "These things are not only what we want, but what we mean to have."

Through all these manifestations of the workers runs the same purpose, the desire to do away with the unstandardized character of domestic service, to diminish the nominal autocracy of the employer and to place the occupation on an organized business basis comparable to that of other industries. The employers do not seem to have any counter plan, but are apparently trusting to the force of circumstances to preserve the old order. In May the six months during which unemployment pay may be claimed expires, and the unemployed will have to face a much more alarming situation. It is possible that this will settle the vexed question in favor of the employers who wish to maintain the old conditions, but the workers are determined that this shall not happen without a fight.

CHILD LABOR IN ARGENTINA, 1914 TO 1917.¹

The Bulletin of the National Department of Labor of Argentina, for August, 1918, is devoted to a study of child labor, the data being gathered in connection with the administration of the woman and child labor law of October, 1907.

The general provisions of this law, as regards children, are briefly:
(a) Minors under 16 shall not work more than 8 hours a day nor more

¹ Boletín del Departamento Nacional del Trabajo, August, 1918, Buenos Aires.

than 48 hours a week; (b) Minors under 13 shall not be employed in industrial establishments; (c) Minors under 16 shall have a 2-hour rest period at midday; (d) Minors under 16 shall not be employed in industries declared by the Government to be dangerous or unhealthful nor from 9 p. m. to 6 a. m.

The report states that the law does not mention children's wages or apprenticeship, and that, while protecting minors in commerce and industry, it is silent regarding them in home work and work in the public streets.

In 1914, 47,779 Argentine industrial establishments were employing 17,838 minors, of whom 14,474, or 81 per cent, were Argentines, and 3,364, or 19 per cent, were foreigners. Thirty-one and three-tenths per cent of these minors were employed in food industries, 16.7 per cent in construction work, 10.7 per cent in the clothing industry, 8.8 per cent in metal trades, etc.

The law requires minors under 16 to obtain a permit (*libreta*) from the Department of Labor before being allowed to work. Besides allowing the department to regulate child labor, this gives an opportunity to obtain information regarding schooling and physical condition, and facilitates the gathering of statistics. During the four-year period 1914 to 1917, 21,519 children under 16 applied for these permits, of whom 70.7 per cent were males and 29.3 per cent females. In 1917 there was an increase in the number of applicants of 18.6 per cent over 1914.

During this period—1914 to 1917—98.5 per cent of the children applying for permits were between 12 and 15 years of age. There were 17 of 10 years and 146 of 11 years. Of the 21,519 children applying, 8,027, or 37.3 per cent, were going to work for the first time, the largest number of whom applied in 1917, the proportion for this year being 54.1 per cent of the total applicants.

The average wages are shown as follows:

AVERAGE DAILY AND MONTHLY WAGES OF CHILDREN IN ARGENTINA, 1914 TO 1917.

Item.	Boys.				Girls.			
	1914	1915	1916	1917	1914	1915	1916	1917
Average daily wages.....	\$0.47	\$0.34	\$0.39	\$0.36	\$0.47	\$0.42	\$0.34	\$0.36
Average monthly wages.....	11.55	9.30	9.13	9.66	8.14	7.62	9.62	9.94

The child labor law also requires that children of school age, i. e. those up to 14 years of age, be examined by the National Council of Education before being given permits to work, so that the council may ascertain the amount of schooling they have had and the conditions under which they are leaving school. In 1917, of the 3,208

children examined by the National Council of Education,¹ 20 per cent had completed school requirements, 47 per cent had completed the secondary school course, 7 per cent the primary grades, and 2 per cent were illiterate. The remaining 24 per cent had attended private schools, the grade of schooling not being given.

Of the 451,425 workers involved in the 1,428 strikes in Buenos Aires during the 11 years 1907-1917, 11,947, or 2.6 per cent, were children under 16. The proportion of children involved has decreased since 1909, because the unions affected have few minors. In the strikes in 1917, 1,752 minors were involved, 1,418, or 81 per cent, of them leaving their work.

¹ In 1917, 38 per cent more children of school age sought permits than in 1916.

INDUSTRIAL ACCIDENTS.

ACCIDENTS ON STEAM RAILROADS IN THE UNITED STATES IN 1917.

The Interstate Commerce Commission has just issued its accident bulletin No. 66,¹ showing the number of collisions, derailments, and other accidents resulting in injury to persons, equipment, and roadbed, arising from the operation of railways used in interstate commerce, covering the period October, November, and December, 1917, and also the entire year ending December 31, 1917. It includes a table giving a comparative summary of the casualties to persons for the years ending December 31, 1916, and 1917, and June 30, 1916.

Under the rules of the Interstate Commerce Commission governing monthly reports of accidents, accidents are divided into three general classes, namely: Train accidents, train-service accidents, and non-train accidents. The train accidents are those arising in connection with the operation of trains, locomotives, and cars in road, yard, or work service, resulting in damage to equipment or other railway property. Train-service accidents are accidents incidental to the operation of trains, locomotives, and cars, resulting in casualties to persons but not in damage to equipment or other railway property. Nontrain accidents include those occurring in and around shops, on boats and wharves, at stations, freight houses, engine houses, coaling stations, water stations, tracks, etc.; also those occurring in connection with construction or with repair, painting, or other maintenance work on buildings and other structures, and with the construction and maintenance of equipment, except such running repairs as may be made by trainmen en route. The commission also prescribes rules stipulating what sort of accidents should be reported. For example, any person killed in an accident at the time of its occurrence, or so severely injured as to die within 24 hours thereafter, should be reported as "killed." With regard to injuries not resulting in death within 24 hours after the occurrence of an accident, the commission makes the following rulings:

Employees incapacitated from performing their ordinary duties for more than three days, in the aggregate, during the 10 days immediately following the accident, are to be reported as "injured"; those incapacitated for only three days or less are not to be reported.

¹ Interstate Commerce Commission. Accident bulletin No. 66, October, November, and December, and year 1917. Washington, 1919. 82 pp.

Persons other than employees are to be reported as "injured" if the injury is sufficient, in the opinion of the officer making the report, to incapacitate the injured person for a period of more than one day from following his customary vocation.

With these rules in mind a brief summary of the report may be given. During 1917 there were 9,567 persons killed and 70,970 persons injured in accidents involving train operation, while 520 were killed and 123,835 were injured in nontrain accidents, making a total of 10,087 killed and 194,805 injured. Compared with 1916 these totals represent an increase of 86 in the number killed, and a decrease of 1,917 in the number injured. The number of fatalities among passengers and persons carried under contract was 343, or 3.4 per cent of the total number killed, and the number injured was 8,374, or 4.3 per cent of the total number injured. The number of employees killed was 33.2 per cent of the total number killed and the number of employees injured was 89.6 per cent of the total number injured. Compared with 1916, the number of passengers and persons carried under contract who were killed showed an increase of 17.9 per cent and the number injured showed an increase of 4.6 per cent.

The following table shows the casualties on steam railroads for the year ending December 31, 1917:

CASUALTIES TO PERSONS ON STEAM RAILROADS IN THE UNITED STATES FOR THE YEAR ENDING DEC. 31, 1917.

Class.	Passengers and persons carried under contract.		Employees (including those not on duty).		Other persons (trespassers and nontrespassers).		Total.	
	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.	Killed.	Injured.
Train accidents.....	131	4,460	460	4,293	168	545	759	9,298
Train-service accidents.....	212	3,914	2,470	48,694	6,126	9,064	8,808	61,672
Nontrain accidents.....			418	121,467	102	2,368	520	123,835
Total.....	343	8,374	3,348	174,454	6,396	11,977	10,087	194,805

WORKMEN'S COMPENSATION AND SOCIAL INSURANCE.

COMPENSATION FOR OCCUPATIONAL DISEASES IN THE UNITED STATES AND FOREIGN COUNTRIES.

BY CARL HOOKSTADT.

The present status as regards compensation for industrial diseases in the various countries of the world is as follows: In Great Britain and most of her colonies, especially the Provinces of Canada, certain enumerated occupational diseases are compensable under the compensation acts. In most of the other foreign countries industrial diseases are not compensable under the accident insurance laws, but are taken care of through sickness and invalidity insurance systems. In the United States, however, with four noteworthy exceptions, occupational diseases are not only excluded from the operation of the various compensation acts but because of the absence of health and invalidity insurance laws receive no consideration whatever.

Of the 42 workmen's compensation jurisdictions in the United States only four (California, Hawaii, Massachusetts, and the Federal Government) provide compensation for occupational diseases. In Massachusetts and the United States this inclusion has been effected through the commissions and courts, whereas in California and Hawaii it has been brought about by statutory enactment. In all the other States occupational diseases are excluded, in theory at least, from the operation of the compensation acts. This exclusion has been brought about (1) by limiting the scope of the law to injuries by "accident," (2) by adverse rulings of the courts and commissions, and (3) by express provisions in the compensation acts themselves.

What constitutes an "occupational disease" under the various compensation laws? This is a question perennially confronting the courts and industrial commissions in the United States. In those States in which industrial diseases are supposed to be excluded compensation benefits have been awarded for anthrax, dermatitis, arsenic poisoning, fume poisoning, occupational neuritis, housemaid's knee, and so on. In each case, however, the court or commission always took pains to point out that the particular injury in question was compensable because it was not an "occupational

disease." Compensation was granted not because it was a disease but because it satisfied in other respects the requirements of a compensable injury as defined by the statute or as interpreted by the court. When, then, is an occupational disease not an occupational disease?

Occupational diseases may be classified according to cause and nature of injury, as follows:

1. Diseases due to gradual absorption of poisons (lead poisoning).
2. Diseases in which the poison or germ enters the system through a break in the skin (anthrax).
3. Skin affections from acids or other irritants (eczema, dermatitis).
4. Diseases due to fumes or dusts entering the system through respiratory organs (tuberculosis, gas poisoning).
5. Diseases due to vibrations or constant use of particular members (neuritis, telegrapher's cramp, housemaid's knee).
6. Miscellaneous diseases (caisson disease, miner's nystagmus).

There are, however, two additional classes of diseases, non-occupational in character, for which compensation is usually granted: (1) Those diseases, such as typhoid fever, erysipelas, pneumonia, and ivy poisoning, which arise out of and are proximately caused by the employment. These diseases, to be compensable, however, must have had their origin in the employment and must be definitely traceable to it. (2) Those diseases which either result from an accident or are aggravated, accelerated, or developed by the accident. In these cases compensation is awarded not for the disease per se but for the results of the accident. Had the accident not occurred the disease would presumably never have developed; consequently the resulting disability is justly attributable to the accident. In this connection the Pennsylvania Workmen's Compensation Board said:

"The workmen's compensation act does not prescribe any standard of health or physical condition to which the workman of the State must conform to qualify for compensation, nor does it imply a warranty on the employee's part that he is free from latent disease or physical defect which may develop into serious injury if excited into activity through his exertions in the course of his employment."¹

In theory, therefore, when an employer employs a workman he accepts him as he is and becomes liable for injuries in which the employee's preexisting disease or defect was partly responsible.

Of the six classes of occupational diseases enumerated above compensation has been uniformly denied for the first class, i. e., for those diseases which have developed gradually and which are inherent in

¹ Smith v. Pittsburgh Coal Co. Pennsylvania Workmen's Compensation Board decisions for 1916, p. 63.

the employment. No State, except those¹ which compensate for all occupational diseases, has awarded compensation for lead poisoning. As regards the other classes of diseases, there has been a lack of uniformity in the practices of the courts and commissions of the several States. Numerous diverse and contradictory rulings have been made in what appear to have been identical or similar cases. For example, compensation for occupational neuritis has been awarded in one State and denied in another; a workman contracting anthrax has been granted compensation in a third State and denied compensation in a fourth; and so on.

However, while the practices among the several State commissions and courts vary, the legal theories and principles upon which their decisions are based have been remarkably uniform. Compensation for occupational diseases has been usually granted if one or more or all of the following conditions were present: (1) If the disease resulted in violence to the physical structure of the body, i. e., if it was traumatic or produced a lesion; (2) if the injury occurred unexpectedly or not in the usual course of events; (3) if the injury can be traced to a definite time and place in the employment; and (4) if the injury was not due to a known and inherent risk of the occupation; or, even if inherent in the occupation, if the employer had neglected to provide reasonable safeguards which would presumably have prevented the injury.

The guiding principle adopted by most of the courts and commissions in occupational-disease cases is stated by the Pennsylvania Workmen's Compensation Board in awarding compensation for dermatitis due to the fortuitous presence of poison in hides handled by the employee, as follows:

Where injuries received in the course of employment are of intraceable inception and gradual and insidious growth and can not be traced to having been received at some certain time, and in which there is no sudden or violent change in the condition of the physical structure of the body, they must be regarded as the results of an occupational disease. However, if the disease can be traced to some certain time when there was a sudden or violent change in the condition of the physical structure of the body, as, for instance, where poisonous gases were inhaled which damage the physical structure of the body, it is an accident within the workmen's compensation act of 1915, and is compensable.²

The following list shows the various classes of occupational diseases for which compensation has been awarded in the several States. This list is by no means complete nor are the States enumerated the only ones in which the specified occupational diseases have been compensated:

¹ California, Hawaii, Massachusetts, and the Federal Government.

² *Roller v. Drueding Bros.* Pennsylvania Workmen's Compensation Board decisions for 1916, p. 86.

ANTHRAX.

Anthrax contracted through chaps or cracks on the back of the hands of a workman while handling hides (New York).

Anthrax contracted by a wool sorter through an abrasion on his neck (Pennsylvania).

ARSENIC POISONING.

Acute arsenical poisoning from inhaling fumes from spelter furnace (Illinois).

GAS, FUMES, AND DUSTS.

Gas poisoning resulting in cerebral hemorrhage from close proximity to gas flame (Illinois).

Breathing of poisonous gases which had accumulated by reason of insufficient ventilation (New York).

Miliary tuberculosis following inhalation of gas fumes due to an explosion (Wisconsin).

Infection of throat due to inhalation of dust from dry hides by reason of poor ventilation (Michigan).

Involuntary inhalation of gas fumes caused by explosion (Pennsylvania).

Inhalation of gas fumes from salamanders used to heat workplace (Minnesota).

Inhalation of poisonous fumes while heating bucket of paint in an insufficiently ventilated room (Ohio).

SKIN DISEASES.

Dermatitis due to fortuitous presence of poison in hides handled by workman (Pennsylvania).

Abrasion and irritation of skin from acids in handling hides in tannery (Wisconsin).

VIBRATIONS OR CONSTANT USE OF PARTICULAR MEMBERS.

Traumatic peripheral neuritis due to constant vibration of punch press (Illinois).
Housemaid's knee contracted by a plumber (Connecticut).

NONOCCUPATIONAL DISEASES.

Typhoid fever contracted from impure drinking water furnished by employer (Wisconsin).

Erysipelas contracted from frost-bitten nose (Connecticut).

Pleurisy and pulmonary tuberculosis contracted from wetting received by jumping in river in course of employment (New York).

Nephritis and disability contracted by becoming wet from flushing hot pulp from basement of paper mill (Indiana).

Ivy poisoning of railroad employee while mowing grass on right of way (New York).

It is interesting to note the paradoxical position in which the courts and compensation commissions have placed themselves. Our workmen's compensation laws have been enacted in the vague belief that industrial accidents were inevitable and constituted a permanent and integral part of our industrial life. The one clinching argument constantly used by proponents of compensation laws has been that a large proportion of industrial accidents were due to the inherent risk of the industry, and consequently the employers' liability system based upon negligence was no longer applicable.

These same reasons, formerly advanced for accident compensation laws, are now used by the courts and commissions against compensation for occupational diseases. In accordance with their interpretation of the probable legislative intent of the statute, compensation for such diseases is denied if they are naturally inherent in or incidental to the employment and granted if their occurrence is sudden or accidental. In actual practice and as a matter of simple justice, however, commissions and courts undoubtedly feel that an employee who contracts an occupational disease is just as much entitled to compensation as one who sustains the loss of an arm. Consequently in their decisions under the law they have no doubt been influenced by their desire to remedy so far as possible the economic injustice of the statutes.

PREVALENCE OF OCCUPATIONAL DISEASES.

The failure to include occupational diseases in the early American compensation acts was probably due, in part at least, to the lack of information as to their prevalence. It was also deemed inadvisable to burden the employer unduly. Even at present there exists no reliable statistical data showing the annual number of industrial diseases in the United States. Numerous investigations of the occupational-disease hazards of particular industries have been made, a number of which have been published by the United States Bureau of Labor Statistics. The morbidity rates for lead poisoning in certain trades and industries have been especially high. Some idea of the prevalence of occupational diseases, however, may be obtained from the Massachusetts statistics. For the two years ending June 30, 1917, there were reported to the Massachusetts Industrial Accident Board, as shown in the following table, 2,385 occupational diseases which resulted in loss of time; 42 of these were fatal.

OCCUPATIONAL DISEASES REPORTED TO MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD DURING 1915-16 AND 1916-17.

Year.	Total number of tabular injuries.	Number of occupational diseases.		Per cent total occupational diseases are of total injuries.
		Total.	Fatal.	
1915-16.....	68,180	1,377	26	2.02
1916-17.....	78,789	1,008	16	1.28
Total.....	146,969	2,385	42	1.62

The 1,351 nonfatal diseases reported during the year 1915-16 resulted in 31,333 days lost time, or an average of 23 days per case.

Massachusetts also has a law requiring certain specified occupational diseases to be reported to the State board of labor and industries. Under this law there were reported to the Massachusetts board during the three-year period 1915-1917 the following occupational diseases:

OCCUPATIONAL DISEASES REPORTED TO MASSACHUSETTS BOARD OF LABOR AND INDUSTRIES DURING THE THREE-YEAR PERIOD, 1915-1917.

Occupational disease.	Total number reported.	Fatal cases reported.
Anthrax.....	82	13
Benzol poisoning.....	8	5
Brass poisoning.....	18	.....
Caisson disease.....	31	1
Cigar neurosis.....	3	.....
Amyl acetate.....	2	.....
Dermatitis.....	14	.....
Fume and gas poisoning.....	49	13
Lead poisoning.....	296	2
Miscellaneous.....	9	1
Total.....	512	35

OCCUPATIONAL DISEASES IN FOREIGN COUNTRIES

Occupational diseases have been compensable under the workmen's compensation act of Great Britain since 1906. The law as amended that year provided that certain occupational diseases enumerated in the act should be compensable if they were due to the nature of any employment in which the workman was employed at any time within one year previous to the date of disability or suspension. Compensation shall be recoverable in the first instance from the last employer. The latter, however, may recover from other employers whose employment had within the year contributed to the contraction of the disease. The compensable occupational diseases specified in the act are anthrax, lead poisoning, mercury poisoning, phosphorus poisoning, arsenic poisoning, and ankylostomiasis (miner's hookworm). The Secretary of State for the Home Office was authorized to extend the provisions of the act to other diseases and processes. In accordance with this authority the scope of the act as regards occupational diseases has since then been considerably increased. In 1907 (order of May 22) 16 new diseases were added to the original list. These included nystagmus, glanders, compressed-air illness, several miner's diseases, and a number of diseases caused by poisonous fumes and acids. The original scope relative to lead and mercury poisoning was also enlarged. Cataract in glassworkers and telegraphist's cramp were added in 1908 (order of Dec. 2); writer's cramp in 1913 (order of July 30); dope poisoning in aircraft production in 1915 (order of July 7); and poisoning by dinitrophenol and tetrachlorethane in 1918 (order of Feb. 28).

Compensation for dermatitis, ulceration of the skin, and ulceration of the mucous membrane of the nose and mouth, produced by dusts and liquids (number 11 in following list), is not allowed if the employee is disabled only for employment in the process in which the disease was contracted. Compensation for cataract in glassworkers is limited to not over six months, and to not over four months unless an operation is had. Compensation for writer's cramp is limited to a period of 12 months.

The various classes of occupational diseases for which compensation is now being awarded under the British workmen's compensation act is shown by the following schedules giving the original list and subsequent additions.

COMPENSABLE OCCUPATIONAL DISEASES UNDER WORKMEN'S COMPENSATION ACT OF GREAT BRITAIN.

Original act of 1906.	
Description of disease.	Description of process.
1. Anthrax.....	Handling of wool, hair, bristles, hides, and skins.
2. Lead poisoning or its sequelæ.....	Any process involving the use of lead or its preparations or compounds.
3. Mercury poisoning or its sequelæ.....	Any process involving the use of mercury or its preparations or compounds.
4. Phosphorus poisoning or its sequelæ.....	Any process involving the use of phosphorus or its preparations or compounds.
5. Arsenic poisoning or its sequelæ.....	Any process involving the use of arsenic or its preparations or compounds.
6. Ankylostomiasis.....	Mining.
Subsequent additions, in effect as of Feb. 28, 1918, by order of Secretary of State.	
1. Arsenic poisoning or its sequelæ.....	Handling of arsenic or its preparations or compounds.
2. Lead poisoning or its sequelæ.....	Handling of lead or its preparations or compounds.
3. (a) Poisoning by benzine and its homologues, or the sequelæ.	Handling benzine or any of its homologues, or any process in the manufacture or involving the use thereof.
(b) Poisoning by nitro and amido derivatives of benzine and its homologues (trinitrotoluene, anilin, and others), or the sequelæ.	Handling any nitro or amido derivative of benzine or any of its homologues, or any process in the manufacture or involving the use thereof.
4. Poisoning by dinitrophenol or its sequelæ.....	Handling dinitrophenol, or any process in the manufacture or involving the use thereof.
5. Poisoning by nitrous fumes or its sequelæ.....	Any process in which nitrous fumes are evolved.
6. Dope poisoning; that is, poisoning by any substance used as, or in conjunction with, a solvent for acetate of cellulose, or its sequelæ.	Any process in the manufacture of aircraft.
7. Poisoning by tetrachlorethane or its sequelæ....	Any process in the manufacture or involving the use of tetrachlorethane.
8. Poisoning by carbon bisulphide or its sequelæ....	Any process involving the use of carbon bisulphide or its preparations or compounds.
9. Poisoning by nickel carbonyl or its sequelæ.....	Any process in which nickel carbonyl gas is evolved.
10. Poisoning by African boxwood (<i>Gonioma Kamassi</i>) or its sequelæ.	Any process in the manufacture of articles from African boxwood (<i>Gonioma Kamassi</i>).
11. (a) Dermatitis produced by dust or liquids.....	
(b) Ulceration of the skin produced by dust or liquids.	
(c) Ulceration of the mucous membrane of the nose or mouth produced by dust.	
12. (a) Epitheliomatous cancer or ulceration of the skin due to tar, pitch, bitumen, mineral oil, or paraffin, or any compound, product, or residue of any of these substances.	Handling or use of tar, pitch, bitumen, mineral oil, or paraffin, or any compound, product, or residue of any of these substances.
(b) Ulceration of the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil, or paraffin, or any compound, product, or residue of these substances.	Do.

COMPENSABLE OCCUPATIONAL DISEASES UNDER WORKMEN'S COMPENSATION ACT OF GREAT BRITAIN—Concluded.

Description of disease.	Description of process.
13. Chrome ulceration or its sequelæ.....	Any process involving the use of chromic acid or bichromate of ammonium, potassium, or sodium, or their preparations.
14. Scrotal epithelioma (chimney sweep's cancer)....	Chimney sweeping.
15. Compressed-air illness or its sequelæ.....	Any process carried on in compressed air.
16. Cataract in glassworkers.....	Processes in the manufacture of glass involving exposure to the glare of molten glass.
17. The disease known as miner's nystagmus, whether occurring in miners or others, and whether the symptom of oscillation of the eyeballs be present or not.	Mining.
18. Subcutaneous cellulitis of the hand (beat hand)..	Do.
19. Subcutaneous cellulitis over the patella (miner's beat knee).	Do.
20. Acute bursitis over the elbow (miner's beat elbow).	Do.
21. Inflammation of the synovial lining of the wrist joint and tendon sheaths.	Do.
22. Glanders.....	Care of any equine animal suffering from glanders; handling the carcass of such animal.
23. Telegraphist's cramp.....	Use of telegraphic instruments.
24. Writer's cramp.....	

The number of occupational disease cases contracted and compensated in 1914 under the British workmen's compensation act is shown in the following table:

NUMBER OF OCCUPATIONAL DISEASE CASES CONTRACTED AND COMPENSATED IN 1914 UNDER WORKMEN'S COMPENSATION ACT OF GREAT BRITAIN.¹

Occupational disease.	Number compensated.
Anthrax.....	36
Lead poisoning.....	344
Mercury poisoning.....	6
Phosphorus poisoning.....	
Arsenic poisoning.....	
Ankylostomiasis.....	4
Benzine derivatives poisoning.....	19
Carbon-bisulphid poisoning.....	3
Nitrous fume poisoning.....	3
Nickel carbonyl poisoning.....	
African boxwood poisoning.....	
Chrome ulceration.....	28
Eczematous ulceration of skin.....	46
Epitheliomatous cancer.....	19
Scrotal epithelioma.....	
Nystagmus.....	2,775
Glanders.....	
Compressed-air illness.....	1
Miner's beat hand.....	817
Miner's beat knee.....	1,609
Miner's beat elbow.....	165
Inflammation of wrist joint of miners.....	181
Cataract in glassworkers.....	4
Telegraphist's cramp.....	
Writer's cramp.....	1
Total.....	6,061

¹Statistics of compensation under the workmen's compensation act during the year 1914.

Of the above total of 6,061 cases of occupational disease 5,544, or over 91 per cent, occurred in the mining industries.

The importance of occupational diseases as compared with industrial accidents may be seen from the following facts: The total number of industrial accidents in Great Britain in 1914 was 400,622, of which 4,216 were fatal and 396,406 were nonfatal. The total amount of compensation paid out in 1914 on account of industrial accidents was £3,275,711 (\$15,941,247), of which £672,633 (\$3,273,368) was paid out for fatal cases and £2,603,078 (\$12,667,879) for nonfatal cases. The total amount paid out on account of occupational diseases during the same period was £189,650 (\$922,931), of which £7,099 (\$34,547) was paid out for fatal cases and £182,551 (\$888,384) for nonfatal cases. The amount paid out on account of occupational diseases during 1914 was therefore 5.8 per cent of the amount paid out for industrial accidents; whereas the total number of occupational diseases contracted during 1914 was 1.5 per cent of the total number of industrial accidents sustained during the same period.

Great Britain also has a law requiring certain occupational diseases to be reported under the Factory and Workshop Act. The following table shows the number of diseases reported under this law during the year 1918:¹

OCCUPATIONAL DISEASES REPORTED UNDER FACTORY AND WORKSHOP ACT OF GREAT BRITAIN DURING YEAR 1918.

Occupational disease.	Total number of cases reported.	Number of fatal cases.
Lead poisoning.....	144	11
Phosphorus poisoning.....	3	.....
Arsenic poisoning.....	3	1
Mercury poisoning.....	9	.....
Toxic jaundice.....	34	10
Anthrax.....	72	8
Total under Factory and Workshop Act	265	30
Lead poisoning (house painting and plumbing).....	35	20
Grand total.....	300	50

In their treatment of occupational diseases the Canadian Provinces have followed in the footsteps of Great Britain. Nova Scotia, Manitoba, and British Columbia adopted verbatim the occupational disease schedule in the British act of 1906. Ontario and Alberta added miner's phthisis to the original list. New Brunswick also copied the British law but did not adopt the schedule. Instead the New Brunswick act confers discretionary power upon the workmen's compensation board to declare what occupational diseases and pro-

¹The Labour Gazette, London, January, 1919, p. 27.

cesses shall be covered by the compensation law. Quebec and Saskatchewan are the only Provinces of the Dominion which have thus far failed to provide compensation for industrial diseases.

Of the other foreign countries a few, including Argentina, New South Wales, Switzerland, and the Union of South Africa, specifically award compensation for occupational diseases; but in a large majority of these countries such diseases are excluded from the operation of the accident insurance laws. This does not mean, however, that industrial diseases are not compensated. In most of the European countries they are taken care of through compulsory sickness and invalidity insurance systems, although there seems to be a tendency in some of these countries at present to put occupational diseases under the accident insurance laws. The extent of compulsory health and invalidity insurance in European countries is shown by the following list of countries having such laws:

EUROPEAN COUNTRIES HAVING COMPULSORY HEALTH AND INVALIDITY AND OLD-AGE INSURANCE LAWS.

Health insurance.	Invalidity and old-age insurance.
Austria. France (mining and seamen). Germany. Great Britain. Hungary. Italy (railroads and female workers). Luxemburg. Netherlands. Norway. Roumania. Russia. Serbia.	Austria (mining and salaried employees). France (mining, railroads, and seamen). Germany. Great Britain. Luxemburg. Italy (railroads). Netherlands. Roumania. Russia (railroads). Sweden. Switzerland (Glarus).

The argument is frequently advanced in the United States that occupational diseases should be taken care of through health insurance rather than accident insurance laws. Of course it is immaterial which method is adopted as long as the victims of industrial disease are adequately provided for. It should be borne in mind, however, that the maximum period during which benefits are payable under health insurance laws is usually 26 weeks. Consequently, unless health insurance legislation is supplemented by an invalidity insurance system, many occupational disease cases will be inadequately compensated.

OPERATION AND STATUS OF STATE INSURANCE FUNDS.

A feature of the movement by supporters of the bill providing for a workmen's compensation law in the State of Missouri is a collection of letters from the managers of State compensation insurance funds of the United States and Canada, expressive of their views as to such funds.¹ These letters are in response to an inquiry made January 17, 1919, by Mr. H. C. Chancellor, a member of the State legislature. The replies, therefore, constitute a very recent report by those best qualified to know the facts involved, and also contain pertinent expressions of opinion on a vital and much-discussed factor of the compensation system.

The questions are nine in number. No list is given of the officials to whom they were addressed, but answers are published from Mr. E. S. H. Winn, chairman of the Workmen's Compensation Board of British Columbia; Mr. Charles D. Wagaman, chairman of the Industrial Accident Commission of Maryland; Mr. A. E. Spriggs, chairman of the Industrial Accident Board of Montana; Mr. George D. Smith, chairman of the Industrial Commission of Nevada; Mr. F. Spencer Baldwin, manager of the State Insurance Fund of New York; Mr. F. W. Armstrong, vice-chairman of the Workmen's Compensation Board of Nova Scotia; Mr. Thomas J. Duffy, chairman of the Industrial Commission of Ohio; Mr. Samuel Price, chairman of the Workmen's Compensation Board of Ontario; Mr. William J. Roney, manager of the State Workmen's Insurance Fund of Pennsylvania; Mr. H. L. Hughes, chairman of the Industrial Insurance Department of Washington; Mr. Lee Ott, Compensation Commissioner of West Virginia; and Miss Eunice G. Anderson, chief clerk of the Workmen's Compensation Department (under the Treasurer's office), of Wyoming.²

Below are given summaries of the answers received to each question with such quotations as are necessary to indicate more fully the point of view of the official making the reply. They are as follows:

1. "Has your State fund been successful?"

The answers to this question are uniformly in the affirmative. Montana: "Most unqualifiedly." Nevada: "Measurable success." New York: "Success has been most impressive." Ohio: "Very successful," etc. In Maryland, with 30 competitors, the State fund carries "about one-tenth of the employers of the State"; in New York, "in the face of violent and unscrupulous competition of a

¹ Letters in favor of State insurance from managers of State funds to H. C. Chancellor, representative from Barton County in the Fiftieth General Assembly of Missouri. Labor Publishing Co., St. Louis, Mo., 1919. 23 pp. Also supplementary pamphlet, 7 pp.

² State funds exist also in California, Colorado, Idaho, Michigan, and Oregon.

large number of stock and mutual companies," the State fund "has about one-seventh of the compensation business of the State."

2. "Is there any considerable sentiment among the parties directly affected by your law for abolition of the State fund?"

This question is answered in the negative in every instance. One or two replies refer to the objections to a State system that are raised by competing companies, but state that the opposition has in no case gone so far as to suggest the abolition of the fund. The reply from Montana speaks of "considerable sentiment being manifested for the abolition" of competing plans which would result in making the State fund exclusive. In Ohio both the Manufacturers' Association and the Federation of Labor are "most ardent supporters" of an exclusive State fund.

3. "If your State fund is competitive, are you in favor of making it exclusive, and why?"

The answers to this question are necessarily more diverse, since in some of the States the systems are exclusive, while in others they are competitive; nor is there unanimity as to the desirability of an exclusive system, though the preponderance of opinion is in favor of such a plan. Mr. Winn (British Columbia) says: "The opinion is undoubtedly rapidly growing that private interests should not be permitted to come between the employer and the injured employee and conduct a business for profit. * * * It is not a legitimate business, never has been, and can never be made such." The administration of a compensation law, he considers, is "as much a function of good government as the policing of our cities or the conduct of our free public schools," and "can not be considered a legitimate field for business."

The Maryland fund is on a competitive basis. It is believed that "it will eventually write all compensation insurance in this State because it will be able to write this insurance at lower premium rates than casualty companies." Mr. Spriggs, of Montana, does not favor an exclusive fund, both because of constitutional difficulties and because he is "of the impression that the employer should have a range of choice as to the method that he will elect to operate under, providing injured employees do not suffer as a consequence."

In Nevada the fund is not competitive, "and we know of no good argument in favor of competitive insurance."

Mr. Baldwin, of New York, favors an exclusive fund; so do Mr. Duffy of Ohio, Mr. Ott of West Virginia, and Miss Anderson of Wyoming. In each of the three States last named the fund is exclusive. Exclusive funds also exist in Nova Scotia and Washington, and the replies from the officials merely state the fact. Self-insurance is allowed in Ontario, and Mr. Price has "no doubt of the superiority" of the State fund over that system, "especially in the interest of the work-

men, one very important difference [in favor of the State fund] being the ability to make payments of compensation more promptly."

4. "Have politics played any part in the administration of your law, and has your State fund been used as a political instrument to oppress or influence employers or employees?"

This question receives a negative answer throughout, an account of conditions being submitted in evidence in a number of cases.

5. "Is your State fund actuarially solvent?"

The answer to this question is in the affirmative, figures being given in a number of instances. Mr. Hughes, of Washington, explains in some detail the steps taken in the establishment and adjustment of reserves, and reaches the conclusion that a shortage reported in 1915 "is in reality fictitious," as shown by a later investigation of the State insurance commissioner, and that the system in use is such as to maintain actuarial solvency.

6. "How much cheaper is insurance with your State fund than with private insurers?"

British Columbia: "From the compensation paid when insurance companies were carrying on business, it would appear the insurance rates were from two to four times higher than are the present rates."

Maryland: "On a general average, our State fund rates are about 15 to 20 per cent lower than the casualty company rates."

Montana: "The cost to the employers under the State fund plan is less than one-half what it is to the employers insuring under casualty companies; or at least has been for the four years that the law has been in operation."

Nevada: "As our administrative expense is but 8 per cent of the premium income as compared to 40 per cent on an average for private insurance companies, it indicates a saving of approximately 50 per cent."

New York: "The initial rates of the State fund at the present time are approximately 15 per cent lower than the rates of the casualty companies. These rates are, of course, subject to reduction by dividends, which for the last policy period will doubtless be not less than 10 per cent." In connection with his answer to question 1, Mr. Baldwin said that "the annual saving to New York employers insured with the State fund is approximately \$500,000."

Nova Scotia: "Liability companies are not allowed to do business in our State, but would consider, if they did, that the rates charged would be somewhat the same as those charged in the State of New York, which on the whole I would consider nearly 75 per cent above the rates charged in Nova Scotia by our state board."

Ohio: "It is safe to say that insurance companies in other States are charging employers from 50 to 100 per cent higher rates than we are charging the employers of Ohio."

Ontario: "There is no private insurance in the Province covering exactly the same field as our State fund system covers. Of the very great advantage as to cost in favor of the State fund system there can be no manner of doubt."

Pennsylvania: "Our initial rates are 10 per cent less than the manual rates, and in addition to that we have paid a dividend, each year, of 15 per cent to our commercial policyholders. In 1916 we paid a 10 per cent dividend to our coal policyholders; in 1917, 5 per cent, and in 1918, 10 per cent." In his answer to question 3, Manager Roney estimates that if the State fund were made exclusive it would effect a saving to employers amounting to \$3,000,000.

Washington: "Industrial insurance under the Workmen's Compensation Act of the State of Washington pays every dollar collected [as premiums] for claims. The overhead expense for the administration of the law is paid by appropriation from the State. The cost of administering the fund out of this appropriation for the year just closed was 5.61 per cent," as against a cost of \$2 in premiums for every dollar paid out in benefits for health, accident, and liability insurance in private companies during the 10-year period, 1905 to 1915.

West Virginia: A comparison of State rates with those of private insurers shows that the latter "are invariably higher."

Wyoming: "We are unable to answer this question authentically since it has been difficult to assemble figures on the private insurance system. Some of our larger employers have made the statement that the present system of State insurance costs more than the liability plan, but [owing to] the fact that our State law exempts the employer from suit being brought by the employee, they are much better satisfied with the present plan." The substitution of a schedule of premium rates for the flat rate now provided by law is anticipated.

7. "Are claims promptly paid by the State fund, and are the parties affected by the law satisfied with it?"

Both parts of this question are answered in the affirmative, except that in Wyoming it is said: "Most generally claims are paid promptly, but we would recommend that claims be handled by a commission or commissioner rather than the courts."

8. "Do you regard State-managed insurance as socialistic?"

This question is obviously a reaction to the effort of the enemies of the State fund to create hostility to it by affixing a label which they consider objectionable. Of course the answer depends on the definition of socialism adopted. This point is most fully developed in the reply of Chairman Winn, of the Compensation Board of British Columbia:

"Any enterprise or service controlled directly or indirectly by the public, the first purpose of which is to give service to the public rather

than to create profits for individuals, is socialistic. As coming within this definition there would be included public schools, public safety (police), public health service, public roads, the postal service, municipal light, water, and tramway service. If this definition is correct, you will see to ask whether a measure is socialistic is almost equivalent to asking: Is it progressive? In order to damn a thing under present-day conditions, it is quite to be expected that certain interests would term the matter "socialistic," but to those, however, who have inquired into and understand the needs of the public, the language used toward the matter has absolutely no bearing on a decision relating to it."

Mr. Wagaman, chairman of the Maryland commission, says: "Whether State-managed insurance is to be regarded as socialistic depends somewhat upon the viewpoint one takes. We look upon it as purely a business proposition in connection with the compulsory insurance provisions of the workmen's compensation law. Where the State compels employers to insure against compensation liability, it seems only fair that the State should afford a medium for providing satisfactory insurance at as near cost as possible."

Montana: "No; it is altruistic in its benevolent protection to both employer and employee in that no profit is allowed in the transaction, as whatever money the employer pays goes directly in its entirety to the injured employee. The fact that it eliminates the 'go-between' in the shape of the insurance carrier should not submit it to the criticism of being socialistic, which is certainly not the case."

Ohio: "Such arguments are simply put forth to blind students to the real merits of State insurance."

Ontario: "The writer feels that it would be a very far-fetched criticism to reject our system of law because of its being called socialistic."

Washington: "It is difficult to say whether this act may be regarded as socialistic, but inasmuch as it is very efficient in getting sure and definite compensation to the injured workman, at actual cost to the employer, we regard it here in Washington as good business, and neither the workmen nor the employers under the act would listen to any suggestion for the repeal of the law in this State."

Others answer "No," or "It has not proved so," while Commissioner Ott, of West Virginia, grants that "it has that tendency," but "from my five years' experience I see no immediate danger."

9. "Please answer any criticisms which the enemies of your State fund are making against it."

The answers do not in every instance cover this inquiry. Mr. Winn, of British Columbia, knows of no criticism; Mr. Roney, of Pennsylvania, knows of no serious criticism. Other States report

criticism from liability companies but not from employers or workmen.

In Montana the companies represent that subscribers to the State fund, which is mutual in effect, are signing a "blank check," since actual costs will be known only after the year's experience has been determined, whereas the casual companies charge a fixed rate. "The answer to this is the record," which shows a cost of less than 1 per cent a year on the pay roll of any one year, or for the four years just above three-fourths of 1 per cent, while in the stock companies the cost has not fallen below $2\frac{1}{4}$ per cent and has averaged nearly $2\frac{1}{2}$ per cent.

In Nevada there is no attack on the principle, but there is a feeling on the part of some claimants that the law is lacking in liberality.

New York: "One of the criticisms frequently urged by the stock companies is that the State fund coverage is not entirely clear and definite, and that there are conditions in which the employer insured with the State fund might find himself not covered. They argue this particularly as to the cases where they say the employee might pursue a remedy at common law. As a matter of fact, the workmen's compensation law abolishes liability at common law for employers insured in one of the prescribed ways, and, furthermore, provides that payment to the State fund releases an employer from all liability on account of injuries or death sustained by his employees. The effect of these provisions, however, is not generally understood by the employers, and it is possible for brokers and agents for casualty companies to conjure up arguments about liability outside the workmen's compensation law not covered by the State policy. The State fund is asking for legislation which will specifically authorize it to cover any liability at common law, under the Federal statutes, or laws of other States arising in connection with a compensation risk. This legislation is needed in order to enable the State fund to meet the arguments of the casualty companies at this point, which, although without actual foundation in fact, have nevertheless the practical effect of enabling the companies to hold a considerable volume of business that would naturally go to the State fund.

"Notwithstanding the entire absence either in the statute or the policy of the State fund of any provision for assessment, the stock companies try to argue that the policyholders of the State fund are liable to assessment, and in times past, when the State fund had a smaller surplus than it has at the present time, this was a point upon which they were able to frighten many employers. We do not believe, in the first place, that there is anything in the argument, and in the second, the surplus of the State fund is now reaching a point where, even if there were an assessment liability, the argument would really have no weight."

In Ohio insurance companies offer criticisms "so varied, contradictory, and reckless that it would take a volume to answer them all. I might say in substance that we have proven by practice that their criticisms have no foundation."

Washington: "The criticism of the act in this State comes entirely from the liability companies who have been put out of business in the State by the State fund. They are now criticizing the law at long range. They no longer attempt to criticize it here in the State of Washington, because they can not get anywhere among the people who are familiar with our State-fund plan. They attempted to assail it in 1913 and went to considerable expense in publishing an elaborate pamphlet. These pamphlets were freely distributed among the members of the legislature, and their claims were so ridiculous that they were laughed out of court. Not since that time have they undertaken to discredit the law here in the State of Washington. They are, of course, misrepresenting the law in other States with a view of keeping those States from enacting a law providing State insurance. This is to be expected, as the liability insurance business has been very profitable to them and they, of course, object to giving up the graft that they have so long enjoyed."

RECENT REPORTS OF WORKMEN'S COMPENSATION EXPERIENCE.

NEVADA.

The biennial report of the Nevada Industrial Commission,¹ reviewing the administration of the State workmen's compensation act for the period July 1, 1916, to June 30, 1918, shows a marked increase in the frequency of accidents due to the increased industrial activity of the period covered by the report.

The number of compensable injuries and the amount of compensation incurred are shown in the following table:

NUMBER OF COMPENSABLE INJURIES AND AMOUNT OF COMPENSATION UNDER NEVADA COMPENSATION ACT, 1916-17 AND 1917-18.

Nature of injury.	July 1, 1916-June 30, 1917.		July 1, 1917-June 30, 1918.	
	Number of cases.	Amount of compensation.	Number of cases.	Amount of compensation.
Temporary injuries.....	1,041	\$66,827.16	940	\$54,075.94
Permanent injuries.....	159	155,892.31	157	135,223.67
Fatalities.....	43	85,098.99	38	122,026.28
Funeral benefits.....		5,184.07		4,951.60
Total.....	1,243	313,002.53	1,135	316,277.49

¹ Biennial report of the Nevada Industrial Commission, reviewing the administration of the Nevada industrial insurance act for period, July 1, 1916, to June 30, 1918. Carson City, 1919. 40 pp.

Increased familiarity with benefits of the act and a close follow-up of reports of injuries by the claim department are responsible for a greater number of claims being filed for minor injuries, with a consequent decrease in the average compensation incurred per case, from \$297.74 prior to June 30, 1916, to \$279.40 and \$252.41, respectively, for the fourth and fifth fiscal years. A considerable reduction in the average number of days lost per accident was due, according to the report, to the desire of the men to return to work as soon as possible because of the high wages prevailing at that time.

The number of tabulatable accidents reported to the commission during the two-year period, 1916-1918, is shown in the following tabular statement:

NUMBER OF TABULATABLE ACCIDENTS IN NEVADA DURING TWO-YEAR PERIOD, 1916-17 AND 1917-18.

Nature of disability.	1916-17	1917-18
Death.....	52	39
Permanent total disability.....	2	.....
Permanent partial disability.....	161	160
Temporary disability over 2 weeks.....	884	718
Temporary disability, 1 to 2 weeks.....	290	297
Temporary disability, 1 week and under.....	596	769
Total.....	1,985	1,983

The industrial commission is to be commended for adopting and putting into effect the recommendations of the International Association of Industrial Accident Boards and Commissions as regards uniform classification of industrial accidents. Nevada is the first State to publish data showing the number of full-time workers, classified by industry, upon which accurate frequency and severity rates of accidents may be computed. The following summary table showing accident frequency and severity rates by industry is compiled from more detailed tables contained in the report:

ACCIDENT FREQUENCY AND SEVERITY RATES IN NEVADA FOR THE TWO-YEAR PERIOD 1916-17 AND 1917-18, CLASSIFIED BY INDUSTRIES.

Industry.	Number of tabulatable accidents.		Accident frequency rate per 1,000 full-time workers. ¹		Number of days lost per full-time worker. ¹	
	1916-17	1917-18	1916-17	1917-18	1916-17	1917-18
Mining and ore reduction.....	1,059	1,224	173	206	45.4	44.4
Nevada Consolidated Copper Co.....	729	441	238	146	17.0	17.6
Railroads.....	46	42	110	115	54.8	24.1
Municipal.....	8	34	5	23	14.7	.8
Public utilities.....	16	18	33	37	70.2	2.2
Miscellaneous.....	127	224	69	130	.3	13.4
All classes.....	1,985	1,983	148	152	37.7	29.9

¹ 360 days of 8 hours each.

The average accident rate per 1,000 full-time workers (360-day basis of 8 hours each) for all industries was 148 and 152 for the fourth and fifth fiscal years, respectively, as compared with 122 for the first three years. Much of this increase is more apparent than real, resulting from the recent requirement that all accidents be reported to the commission, whether followed by time loss or not. Although only those meeting the definition of a "tabulatable accident"—one causing a loss of time other than the remainder of the day on which the accident occurred—are tabulated in this report, the present practice gives the commission knowledge of a great number of minor injuries which were formerly not reported. The fatality rate showed an unusual increase in 1917, 52 deaths being reported for the fourth fiscal year, greatly exceeding the previous three-year average of 36.

On July 1, 1917, it became the duty of the commission to collect "accident benefit" premiums from, and to furnish medical and hospital treatment to, the injured employees of every contributor who did not file written notice of the consummation of other arrangements for furnishing the medical benefits provided for under the act. Two problems confronted the commission upon the passage of this amendment in 1917—first, the determination of premium rates for this service, and, second, the designation of physicians for the care of accident benefit fund cases.

Based upon the results of a questionnaire sent to employers and upon subsequent experience the commission promulgated the following accident benefit rates to take effect January 1, 1919: Seventy-five per cent of the compensation premium rate for mining and packing houses; 50 per cent for all other hazardous occupations; and 25 per cent for the less hazardous so-called preferred risks. The commission decided to leave the selection of physicians to the injured men, reserving the right to order a change in treatment whenever it should be deemed necessary to promote and insure recovery. A schedule of fees for medical service, drawn up with the approval of the State medical society, seems to have met with the approval of physicians generally.

That farmers are not unanimous in desiring exclusion from the benefits of the compensation act is shown by the number of requests received from farmers asking how they might secure workmen's compensation insurance for their employees. They are at present not only absolutely excluded from the benefits of the act, but are unable to secure insurance from the employers' liability insurance companies, who do not care to accept only this business in Nevada. The extent of the desire on the part of the farmers for this coverage was indicated by the fact that 55 per cent of the farmers who answered questions sent out by the labor commissioner on the subject were in favor of being permitted to insure and 42 per cent were in favor of a compulsory act.

VERMONT.

The biennial report of the commissioner of industries of Vermont, for the period ending June 30, 1918,¹ records 12,447 industrial accidents, of which 82 were fatal. On account of the injuries sustained in these accidents, the workmen and their dependents have received, or will receive, a total of \$263,069.63 divided as follows: Compensation actually paid from July 1, 1916, to July 1, 1918, \$111,099.11; amount actually paid for medical expenses to injured employees, \$82,930.03; funeral expenses paid in fatal cases, \$7,700; estimated compensation to be paid on account of injuries received, \$53,240.29; estimate of medical expenses to be paid for injuries received, \$8,100. In almost all cases of serious injury weekly compensation was paid within 21 days after the accident. The report states that under the present system the computation of the average weekly wage on which compensation is based is cumbersome and unnecessarily burdensome to the employer. In order to correct this, and also to make licensed insurers and employers who carry their own risks act with reasonable promptness in the settlement of cases, the commissioner recommends that the compensation act be amended so as to give him authority to revoke or suspend the license of a licensed insurer and also authority to revoke the insuring privilege of the employer.

On July 1, 1918, there were 42,148 persons at work in industries employing five or more. Of this number 33,644 were men, 7,124 women, and 1,380 minors. As only concerns employing 11 or more workers are subject to the provisions of the compensation act, only about 40,000 of the workmen of Vermont benefit by the statute. The number of women employed in industry increased about 33.3 per cent during the last six months covered by the report, while the increase of child labor was reported as being very large, especially during the vacation period.

COUNTY OF MAUI, HAWAII.

The annual report to the governor of Hawaii, made by the Industrial Accident Board for the County of Maui, covering the year ending January 31, 1919, is of interest chiefly by reason of its expression as to the result of amendments to the law, and its recommendations for further change on the basis of experience under the act. Referring to the changes made in 1917, the report says that experience has shown the wisdom of most of the changes made, "particularly in the shortening of the waiting period before compensation begins [from 14 days to 7 days], and the increasing of the allowance for medical and surgical expenses from \$50 to \$150. The fixing of definite compensation for

¹ Vermont. Biennial report of the commissioner of industries for the term ending June 30, 1918. Rutland, 1918. 17 pp.

various forms of permanent partial disability has also made for equity and justice."

As to other amendments, the report says:

While there may be other changes desirable, there is one which this board deems of great importance at this time. That one is the matter of security for compensation. In this regard the board once more wishes to urge the establishment of a Territorial Insurance Fund for the benefit of employers.

Our experience covering now three years and one-half has demonstrated that the present system of having compensation supplied through private casualty companies is unsatisfactory from a number of standpoints. The representatives of the companies with which we have had to deal assure us that there is no profit in this class of insurance, which, if true, explains their tendency to indifference and but casual attention, which adds to the work of the accident board and to the difficulties of the employers.

* * * We are not prepared to say that the rates in general charged are excessive, further than that our references place the costs and profits of this class of insurance at from 40 to 60 per cent of the premium paid.

Reference is then made to the arbitrary action of companies in refusing risks or canceling policies, and to the fact that State insurance is not an untried experiment in the United States. The conclusion is:

This board, therefore, respectfully urges upon the legislature the amending of the Workmen's Compensation Law by providing for a Territorial insurance fund, to be administered by an expert actuary or manager, for the following reasons:

(a) Because the present system of private casualty company has consistently proven unsatisfactory.

(b) Because the principle of compelling an employer to carry insurance and affording him no means of complying with the law except by contributing to the support of companies engaged in the business for their own profit is wrong.

(c) Because the experience of various States points the way to remedy the difficulty.

INDUSTRIAL ACCIDENTS UNDER NEW YORK WORKMEN'S COMPENSATION LAW.

The number of industrial accidents reported under the workmen's compensation law of New York during each of four years ending June 30, 1914 to 1918, inclusive, is shown in the following table:¹

NUMBER OF INDUSTRIAL ACCIDENTS, COMPENSATION DISABILITY CASES, AND DEATH CASES UNDER NEW YORK WORKMEN'S COMPENSATION LAW, 1914-15 TO 1917-18, INCLUSIVE.

Year.	Total number of accidents.	Number of compensation disability cases.	Number of death cases.
1914-15.....	225,391	40,855	812
1915-16.....	273,385	50,861	1,366
1916-17.....	313,406	58,562	1,570
1917-18.....	286,871	51,508	1,504
Total.....	1,099,053	201,786	5,252

¹ The Bulletin of the New York State Industrial Commission for February, 1919 (p. 82).

During the fiscal year 1917-18 the commission granted 44 remarriage awards to widows. About 1,000 lump-sum cases were adjusted.

CONDITIONS AND RATES GOVERNING CONVERSION OF GOVERNMENT LIFE INSURANCE POLICIES.

The February issue of the MONTHLY LABOR REVIEW (p. 91) contains a letter addressed by the Secretary of the Treasury to all the soldiers and sailors of America urging them to continue United States Government insurance. Further details of the conditions under which those now holding Government life insurance policies may convert these policies within five years into one of the following kinds of policies: Ordinary life, 20-payment life, 30-payment life, 20-year endowment, 30-year endowment, or endowment maturing at age 62, and the rates applicable to each form of policy, have been announced by the Bureau of War Risk Insurance in a statement issued on February 1, 1919, as follows:

1. Present insurance certificates are one-year renewable term contracts and may only be continued for a period of five years from the declaration of peace.
2. At any time during this period of five years these insurance certificates may be converted in whole or in part without medical examination into any one of the following six life insurance policy forms: Ordinary life, 20-payment life, 30-payment life, 20-year endowment, 30-year endowment, and endowment maturing at age 62. If the present insurance certificates are to be converted as above, the conversion must take place during the five-year period mentioned.
3. The above policy forms will be the only ones written at present, and the insurance will be carried by the Government at rates considerably lower than regular life insurance companies granting similar benefits.
4. Premium rates are net rates based upon the American Experience Table of Mortality, with interest at 3½ per cent, figured upon a monthly basis. Expenses of administration are paid by the Government and are not charged against the insurance, thereby granting the insured a net rate.
5. All policies contain a waiver of premium and total disability clause, making the proceeds payable at any time to the insured when he becomes totally and permanently disabled, *regardless of his age*, in monthly installments of \$5.75 per \$1,000 of insurance, covering the entire period of total disability for life of the insured. No policy in any life insurance company contains a similar clause without regard to age.
6. Example of rates for Government policies:

\$1,000 INSURANCE.

Age.	Ordinary life.		20-payment life.		20-year endowment.		30-year endowment.	
	Monthly.	Annual.	Monthly.	Annual.	Monthly.	Annual.	Monthly.	Annual.
20 years.....	\$1.15	\$13.58	\$1.76	\$20.79	\$3.31	\$39.10	\$2.06	\$24.33
25 years.....	1.29	15.24	1.91	22.56	3.33	39.34	2.09	24.69
30 years.....	1.47	17.36	2.10	24.81	3.36	39.69	2.15	25.40
35 years.....	1.70	20.08	2.33	27.52	3.41	40.28	2.24	26.46
40 years.....	2.01	23.74	2.62	30.95	3.51	41.46	2.41	28.47
45 years.....	2.43	28.71	2.99	35.32	3.68	43.47	2.68	31.66
50 years.....	3.01	35.56	3.50	41.34	3.98	47.61	3.14	37.09

Dividends will be paid annually—they may be taken in cash, deducted from premium or left with the Government to accumulate at compound interest. All paid-up and extended insurance values are participating and such values are issued in exchange for the full reserve value without surrender charge. If an annual, semiannual, or quarterly premium is paid under a Government policy and death occurs, the discounted value of premiums paid beyond current month will be returned. The low rates provided by the Government, and the special disability clause, are granted not only to soldiers and sailors holding term policies issued under the War Risk Act, but to "all hands" in the future within 120 days of their enlistment or commission in the Army or Navy.

7. The proceeds of all policies are nontaxable. Insurance is incontestable from date of issue, nonassignable, and free from the claims of creditors. All policies are free of conditions as to military and naval service, residence, travel, or occupation.

8. Loans and cash values are provided beginning at the end of the first year, for the full $3\frac{1}{2}$ per cent reserve values. Loans may be made up to 94 per cent of the cash value. Participating paid-up or extended insurance is guaranteed in all converted policies.

9. In event of death, policies are payable only in 240 monthly installments. Paid-up insurance, however, is payable at death in one lump sum, and endowment policies are payable at maturity in the same manner.

10. A bill before Congress extends the permitted class of beneficiaries, and provides for full payment to estate if no beneficiaries in permitted class are living when the policy becomes a claim.

11. Policies may be reduced, but not increased.

12. The premium rates will be based on the age of the insured at the time the conversion is made. Premiums heretofore paid merely covered the cost of the term insurance; and there is no cash value when changing to permanent policies.

13. All premiums are due on the first day of each month, and a grace of the balance of month for payment of premiums is allowed without charge of interest. Premiums may be paid quarterly, half yearly, or yearly, as may be desired; method of payment may be changed at will on notice in writing. Checks and money orders should be made payable to the Treasurer of the United States, and be sent to "Disbursing Clerk, Bureau of War Risk Insurance, Washington, D. C." The letter inclosing remittance to cover insurance premiums should contain the full name of the insured, his grade and organization at time of discharge, army serial number, date of discharge, and present address.

14. A grace of one month is allowed in payment of premiums and liberal reinstatement provisions are contained in the policy.

15. Further information concerning conversion, including rates, blanks for making conversions, etc., may be secured by addressing Bureau of War Risk Insurance, Conservation Section, Washington, D. C., on or about March 15, 1919.

SOCIAL INSURANCE IN GERMANY AFTER THE WAR.

In a remarkable article in the *Kölnische Zeitung*¹ Prof. P. Moldenhauer inquires whether Germany will be able in future to discharge its obligations with respect to social insurance. The writer says:

The hopeless situation of German economic life forces upon us serious doubts as to whether the German social insurance system will be able in the years to come to discharge its obligations with respect to the granting of medical treatment, sickness,

¹*Kölnische Zeitung*. Cologne, Dec. 12, 1918. Evening edition.

maternity, and death benefits, accident, invalidity, old-age, and survivors' pensions. The same question was raised in the years of the creation of the social insurance system, particularly during the discussions of the imperial insurance law and of the law on salaried employees' insurance, but at that time critics were silenced by a reference to Germany's remarkable economic development. But how is the state of affairs at present? Up to 1917 the annual contributions to social insurance have risen to more than one billion marks, and this in spite of the fact that participants in the war were exempt from the payment of contributions although the time spent in military service was credited to them in the computation of benefits. State Councillor Brunn estimates that in the case of the invalidity and survivors' insurance system this loss of contributions during the period of the war amounts to at least 200,000,000 marks [\$47,600,000], and that it will be still larger in the case of the salaried employees' insurance where the loss of contributions during the first 15 months of the war amounted to 71,000,000 marks [\$16,898,000]. This loss must be made up by the insurance carriers. To be sure, the annual report for 1917 of the insurance institute for salaried employees says that, according to recent investigations, the loss of contributions from participants in the war would not have caused an increase of the rate of the contributions or a lowering of the insurance benefits, even if the war had lasted much longer. Let us hope that the balance sheet for 1919 will justify these optimistic predictions, which at the present can not be examined as to their reliability. The contributions must, moreover, be considered the imperial subsidies to the old-age, invalidity, and survivors' pensions, which in 1916 alone amounted to 84,500,000 marks [\$20,111,000]; and likewise the costs of the maternity subsidies paid by the Empire.

The war has shifted the actuarial bases of social insurance to the disadvantage of the insurance carriers. Owing to undernutrition, women's labor in establishments not suited therefor, overexertion, excessive overtime and night work, and suspension of numerous protective regulations, the morbidity, invalidity, and mortality rates have risen. The successful combating of tuberculosis has been interfered with during the war, and the ravages of this disease have been increased by undernutrition. The unfavorable state of the health of ex-soldiers, especially of disabled soldiers, who sooner or later will file claims for pensions, must also be taken into account. The strongest evidence of this development is to be found in the sickness insurance. According to the yearbook for sickness insurance for the year 1917 the average morbidity rate in 51 sick funds distributed over the whole Empire rose from 2.66 per cent in 1915 to 2.77 per cent in 1916 and to 3.03 per cent in 1917. A further increase of the morbidity rate is expected for 1918. The yearbook states that as a result the prewar rate of contributions of 3½ per cent of the earnings of the insured will have to be raised to 5 per cent. Experience has, moreover, shown that claims for sick benefits are always more numerous during times of extensive unemployment, and as long as the present lack of raw materials prevails and transport conditions do not improve, the rate of unemployment in Germany will be very high.

As regards the invalidity insurance, the number of newly granted pensions has not increased so far; on the contrary the number of pensions granted in 1917 (103,193) was somewhat smaller than that of the pensions awarded in 1916 (107,808). The number of sick pensions, on the other hand, the larger number of which was awarded to ex-soldiers, has increased from 11,806 in 1913 to 79,834 in 1917. The increase in orphans' pensions was also very large and likewise due to the war. That the number of invalidity pensions has not increased may be explained by the fact that owing to the increased cost of living many are forced to strain their forces to the utmost to earn something and thus to obtain more than the pitifully small invalidity pensions, which in 1917 averaged less than 190 marks [\$45.22] per year. Figures are not yet available for the salaried employees' insurance which became effective in 1918.

Industrial accidents for 1916, the only year for which statistics are thus far available, show a small increase, especially of fatal accidents. But here another important fact must be considered. In the workmen's accident insurance system the unsound method has been adopted of computing the premiums in such a manner that they are just sufficient to cover the current annual expenditures, i. e., only the pensions actually to be paid during the year and all other current disbursements are being assessed on the employers. Consequently the expenditures are increasing from year to year, for in addition to the pensions awarded during the current year there must also be paid the pensions awarded in preceding years in so far as they have not become extinguished through death of the beneficiary or through the recovery of his earning capacity. As a matter of fact the total expenditures of all trade accident associations have increased from 10,500,000 marks [\$2,499,000] in 1886 to 218,000,000 marks [\$51,884,000] in 1916. In the case of the industrial trade accident associations the total annual expenditure per insured person was 2.89 marks [68.8 cents] in 1886 and 21.57 marks [\$5.13] in 1916, and computed per 1,000 marks [\$238] of wages it was 4.02 marks [95.7 cents] in 1886 and 17.57 marks [\$4.18] in 1916. Thus the burden of the present generation is being lessened at the cost of the coming generation. This system would be unobjectionable if a favorable economic development in the future could be expected with certainty, but in case of unfavorable economic conditions the system will surely fail. If the total amount of wages of the insured persons decreases, the proportion of the burden of old pension claims to be assessed on each 1,000 marks [\$238] of wages would increase, i. e., in case of unfavorable economic conditions the assessment per 1,000 marks in wages would be considerably higher than in case of normal or favorable development. During the war such difficulties have arisen repeatedly, especially in the case of the Building Trades Accident Association, which received permission from the Imperial Insurance Office to reduce its premium rates and to make up for this loss of revenue by withdrawals from the reserve fund (in 1916, 9,000,000 marks [\$2,142,000]).

Although in the case of the invalidity, survivors', and salaried employees' insurance a more equitable distribution of the burden between the present and the future exists, yet the solvency of the system is dependent on the actual attaining of a fixed rate of interest on its invested assets and on the absence of a specially unfavorable rate of invalidity and mortality. As the invalidity insurance bases its computations on a revenue of 3 per cent from interest and the salaried employees' insurance on one of 3½ per cent, it would, in view of the fact that both insurance systems have heavily invested in war bonds bearing a higher rate of interest, seem possible to offset unfavorable invalidity and mortality conditions, always supposing that the State does not become bankrupt, in which case the capital invested in war bonds would become a total loss. The total war loan subscriptions of all insurance carriers inclusive of the sick funds amount to over 2,000,000,000 marks [\$476,000,000]. This fact makes evident how inane was the demand of the first days of the revolution that the war loans should be repudiated with proper protection of small holders. The insurance institutes have invested more than half of their assets in bonds of the Empire and of the Federal States. At the end of 1917 the insurance institute for salaried employees had invested 68 per cent of its assets in such bonds. State bankruptcy would therefore also signify the bankruptcy of social insurance, at least of the invalidity, survivors', and salaried employees' insurance, while sickness and accident insurance would also be seriously upset by such a calamity.

Thus the result is: Unfavorable development of the actuarial bases of social insurance on the one hand, and cessation of favorable economic conditions on the other. Nobody can tell yet how large the additional burden of social insurance will be, but there is no doubt that if the present obligations of social insurance, inclusive of the considerable extension of benefits introduced during the war, are to be discharged,

much more than 1,000,000,000 marks [\$238,000,000] will be required annually. Is the German economic system able to-day to bear such a burden? This question can also not be answered at the present moment, when not even Germany's own war debt has been accurately determined, apart from the burdens which the enemy will impose on it. But it can be said that social insurance can not be preserved in its former extent if we waste our time with tiresome party squabbles, if we squander enormous sums on all kinds of overlapping administrative organizations, and if instead of working and producing real values we try socialistic experiments or chase after communistic Utopias. And on another point we must also see more clearly. Whoever during the last two years has read the daily papers and magazines has come across any number of proposals as to the extension of social insurance. I only mention the proposal of Schmittman for an imperial housing insurance, which according to an estimate of the Department of the Interior would require an annual outlay of 250,000,000 marks [\$59,500,000], and the proposals for a general maternity and unemployment insurance. It was already questionable whether such plans could be realized while Germany still was rich. In a poor Germany their realization is impossible, and it would be better for Germany if it became conscious of this fact instead of nourishing false hopes.

UNEMPLOYMENT RELIEF IN ITALY.

According to the *Tribuna*¹ a decree has been issued by the Italian Government setting forth the terms of the unemployment grants to be made out of the fund of 100,000,000 lira (\$19,300,000) set aside by the Government and out of the unemployment funds subscribed by the workmen of auxiliary war establishments compulsorily registered with the National Provident Institution. The unemployment benefits to be granted vary according to the sex and age of the unemployed and according to the population of the communes. The latter are divided into three categories: (1) Population under 20,000; (2) from 20,000 to 60,000; (3) over 60,000. The daily grants are to be as follows:

Sex and age.	Communes of—		
	Class 1.	Class 2.	Class 3.
	<i>Lira.</i>	<i>Lira.</i>	<i>Lira.</i>
Males:			
Over 21 years.....	2.00 (38.6 cents)	2.50 (48.3 cents)	3.00 (57.9 cents)
16 to 21 years.....	1.00 (19.3 cents)	1.50 (29.0 cents)	2.00 (38.6 cents)
12 to 16 years.....	.50 (9.7 cents)	.75 (14.5 cents)	1.20 (23.2 cents)
Females:			
Over 21 years.....	1.50 (29.0 cents)	2.00 (38.6 cents)	2.50 (48.3 cents)
16 to 21 years.....	.75 (14.5 cents)	1.25 (24.1 cents)	1.70 (32.8 cents)
12 to 16 years.....	.50 (9.7 cents)	.75 (14.5 cents)	1.00 (19.3 cents)

Employees of auxiliary war establishments who have made at least 6 fortnightly payments to the National Provident Institution (*Cassa Nazionale di Previdenza*) will be entitled to a further grant varying from 0.25 to 1 lira (4.8 to 19.3 cents) per day, according to category. If the employee has a wife, or children under the age

¹*Tribuna*, Jan. 10, 1919.

of 12, he will be entitled to an extra grant of 0.50 lira (9.7 cents) per day if living in a commune with a population not over 60,000, and of 0.75 lira (14.5 cents) if living in a larger commune. The grants will be made from the eighth day after the last wages were received. Only persons who are registered at their local employment bureau will be entitled to a grant.

The same paper¹ states that in pursuance of a Government decree any employees dismissed before January 31, 1919, from Italian factories engaged in war work are entitled to receive the following bonuses:

Women with families dependent on them, 40 days' wages.

Women with no dependents, and over 16 years of age, 20 days' wages.

Boys and girls under 16, 7 days' wages.

Men above 16, 30 days' wages.

Dismissed workers will be entitled to third-class railway fare to their homes.

¹ Tribuna, Dec. 5, 1918.

HOUSING.

METHODS OF SALE OF COMPANY HOUSES.

BY LEIFUR MAGNUSSON.

Selling of houses is not the customary method by which the employer houses his employees; it is as yet a comparatively untried experiment. Out of 213 different employers canvassed in an inquiry by the United States Bureau of Labor Statistics only 33 report constructing and selling houses to their employees. The practice of selling is not limited to any particular industry; it is, however, less common in the mining industry, and is finding its limited practice among the more highly specialized and permanent industries. Mine operators do not, as a rule, encourage their employees to buy houses, because the industry is not permanent and mines become worked out after a period of years.

The few companies of those reported which sell houses to their workmen are distributed among the different industries as follows:

Bituminous coal mining:	
Pennsylvania and West Virginia.....	2
Alabama, Tennessee, and Kentucky.....	2
Iron mining:	
Michigan, Wisconsin, and Minnesota.....	2
Textiles:	
New England.....	1
Iron and steel manufacturing:	
Pennsylvania and Illinois.....	13
Southern district.....	1
Miscellaneous industries.....	12
Total.....	33

The term mortgage is the method by which the sale of houses is usually conducted. In one instance the company builds the house for the employee and takes cash payment for it, leaving the employee to secure his money from a local building and loan association. The maximum number of years stated as permitted for the completing of payments is 22, the minimum term 3 years, while the average is approximately 10 years. Fourteen companies report the term as being 10 years and over, and five companies as being below 10 years. Thus, out of a total of 33 employers who sell houses to their employees, 19 have reported the period for which payments run; and in the remaining cases the period has been stated as varying according to agreement entered into or as indefinite in time.

The amount of the first payment is reported either as a certain fixed sum or as a percentage of the sale price. Where the latter is reported it appears to vary around 10 per cent; the highest proportion (reported in one instance) is 50 per cent, and the lowest (reported in two instances) is 1 per cent. Where reported in absolute amounts, the maximum reported is \$400 (one instance), the minimum \$10 (one instance), and the average \$130; so that on a house costing \$2,500 the average first payment will be about 5 per cent.

The rate of interest on the balance of the payments is fixed at 6 per cent by 20 companies out of 30 reporting on that point; at 5 per cent in seven instances; and at 7 per cent in one. In one case no interest is charged.

Payments are almost invariably collected monthly, only one employer reporting weekly collections and one semimonthly, while one reported "at convenience of purchasers." In 10 cases the installments are collected by deducting them from wages due, and in all other instances they are payable at the office of the building and loan association or of the subsidiary real estate company conducting the housing. In some instances it is stated that the purchasers prefer to have collections on the pay roll as it is the least trouble to them as well as certain. The companies usually let the purchaser choose his method of payment.

MANAGEMENT OF FUNDS.

The whole management of the building and selling scheme is without exception in the hands of the employing company or the subsidiary real estate company as the case may be. Of the 33 companies which report the practice of selling houses to their employees, 5 operate through a subsidiary or stock-controlled company. One projected scheme was called to the attention of the bureau under which the company proposed to organize a joint trusteeship composed of representatives of the company and of the employees who are purchasing the houses. By this means the company hopes to prove the bona fide nature of the scheme and thereby to satisfy the employees of the non-profit-making character of the undertaking and of its being wholly in the interest of the employee.

ABILITY TO PAY.

In practically all cases the sales are regulated in some way according to the ability of the employee to purchase, while in others judgment as to that fact is left to the employee. In two instances definite relation has been established between the monthly wages and the monthly payments on the house—in one case installments must not exceed one-fifth of the wages, in another one-third. It was pointed

out that a failure to adjust payments to income would defeat the purpose of the whole scheme of getting permanent and efficient employees, as it would overburden the employee, cause him worry, and hence make him less efficient. In one case the company assumes that the employee has additional sources of income when he tries to buy what seems a somewhat expensive house. In most cases the questions of whether the employee has boarders, who bring additional income, and his standing and credit among his fellow employees are looked up. The amount of his earnings is always open to inspection as a gauge of his ability to buy a house.

INSURANCE TO GUARANTEE PAYMENT OF LOAN.

* One employer has been found who encourages the purchasers of houses to take out a life-insurance policy to guarantee the payment of their loan in the event of death prior to the final payment. Such a plan is of advantage to the family of the purchaser should he die before making all payments, and it is obviously also of advantage to the selling company, although it also holds the mortgages on the property for its own protection.

The arrangement provides for a lump-sum payment of the premium by the employer to the insurance company. The employee-purchaser can then liquidate this premium by periodic inclusion in his semi-monthly payments of principal and interest of the purchase price. The amount of such a premium is not great. Thus for the 15-year term which is allowed for the payment of the purchase price of a house, the amount of the premium for each \$1,000 of insurance for a purchaser 21 years of age at the time of purchase would amount to \$57.94, if paid in a lump sum in advance; and if paid in semimonthly installments each installment would amount to 30 cents. At age 35, the lump-sum payment in advance on \$1,000 of insurance would be \$69.07, or 36 cents in semimonthly installments. For \$3,000 of insurance the above amounts would be trebled—e. g., at age 35, the semimonthly installments on \$3,000 of insurance would be \$1.08.

The result of the recommendations of the particular company, whose scheme of protection is described above, is shown by the fact that a trifle over a half (51 per cent) of the purchasers took out policies, and of those doing so 95 per cent took out policies covering the full value of the house and 5 per cent took out policies covering part value. Of the men who bought houses from the company, 82 per cent are factory workmen, 12 per cent work in the factory office, and 6 per cent in the general office of the company.

Another employer, while not demanding insurance to guarantee future payments, requires what is in effect a term insurance policy, the risk of which is assumed by the company. The employee signs an agreement to purchase, in a cooperative bank approved by the

employer, shares of stock and to continue payment thereon until the deposits amount to \$1,000. This sum matures in about 12 years under this plan and becomes the security for the payment of a 12-year note of that face value on the property. If at any time before the 12 years expire the employee becomes disabled or dies, the real estate company through which the employer conducts his housing agrees to accept the surrender value of the shares in the cooperative bank in full payment of the 12-year note. The employee must make his monthly payments on the cooperative stock and continue his monthly payments of interest; in consideration therefor the real estate company agrees not to make a call on the demand note which is given for the balance of the purchase price.

Though not technically an insurance policy, the whole arrangement is, as has been said, in the nature of a term insurance scheme, the real estate company and not an outside insurance company assuming the risk of death or disability of the purchaser within the 12-year term of the note.

PROVISIONS TO PREVENT SPECULATION.¹

In selling their houses three companies have tried to prevent speculation. One large manufacturer in Ohio aims to have the speculative increase accrue to the employee. This is done by basing the monthly installments of the purchase price for the first five years on the present real estate value of the property, which is placed at 25 per cent above the actual cost price to the company; and if at the end of the five years the employee is still with the company there is returned to him the difference between the two values, and the interest thereon. All payments thereafter are then made on the actual cost price of the property.

Another method of preventing speculation is to require the erection within a limited time, usually less than a year, of a house upon the lot sold to an employee. A certain steel company in Pennsylvania refunds 20 per cent on the purchase price of a lot if a house is built within six months, or a good start made on it. A New England textile mill, not covered in the original investigation, reports to the Bureau that it gives the employee the lot if at the end of 10 years he has erected a house on the lot and is still with the company.

Some employers, however, have, in fact, encouraged the element of speculation in offering their houses to the workmen. Possibilities of the future growth of the company town are pointed out, "whether you buy to hold out for an increase, or to build a home to live in or to rent." The buyer is lured by "\$3 cash and \$2 per week until paid, no interest, no taxes for three years."

¹ Cf. "Housing and the land problem," in MONTHLY REVIEW of the Bureau of Labor Statistics, June, 1913 (pp. 268-277).

OPTION TO REPURCHASE.

In some deeds provisions are found for the repurchase of property being sold to an employee, should he for any reason desire to discontinue his purchase agreement. In such cases of repurchase by the company it is customary to return to the employee an amount equivalent to the difference between the sums paid on installments and the amount of a reasonable rent of the premises for the period for which the house has been occupied, crediting the difference on future rent should the occupant care to remain.

One manufacturing company in Pennsylvania figures the rent on the house as 10 per cent of its purchase price. This amount plus all taxes, insurance, unpaid interest, and repairs, is deducted from the total amount of the payments made and the balance returned in cash.

The following from the purchase agreement of a structural steel company in Pennsylvania may be taken as typical:

It is further agreed that if the purchaser before the delivery of the deed shall be discharged from, or shall voluntarily leave, the employ of the company, a corporation created and existing under the laws of the State of New Jersey, the land company agrees to purchase said property upon the following terms, if requested in writing by him so to do before the expiration of 60 days after the termination of his service with said company:

a. If the purchaser shall be discharged from the employ of said company, the land company shall pay to the purchaser when he shall have surrendered all his right, title, interest, and estate in and to said property to the land company, an amount equal to said purchase price, less a discount at the rate of 1 per centum of said purchase price for each year or fraction thereof that this agreement shall have continued in force (but the rate of said discount shall never be less than 3 per centum nor more than 10 per centum of the said purchase price), and less also all sums still owing by the purchaser to the land company under this agreement.

b. If the purchaser shall voluntarily leave the employ of said company, the land company shall pay to the purchaser when he shall have surrendered all his right, title, interest, and estate in and to said property to the land company, a sum equal to said purchase price, less a discount of 2 per centum of said purchase price for each year or fraction thereof that this agreement shall have continued in force (but the rate of said discount shall never be less than 6 per centum nor more than 20 per centum of the said purchase price), and less also all sums still owing by the purchaser to the land company under this agreement.

It is further agreed that if the purchaser shall die while in the employ of said company, the land company agrees to purchase said property from the heirs, executors, or administrator of the purchaser if requested by them in writing so to do before the expiration of 60 days from the date of said purchaser's death, for a sum equal to the aforesaid purchase price, less such amount as may be necessary to restore said property to good condition and repair, and less also all sums still owing to the land company by the purchaser under this agreement at the time of his death; provided, however, that not more than 10 years shall have elapsed from the date of this agreement, in case the purchaser shall have received a deed to said property at the time of his decease.

SALE TO NONEMPLOYEES.

While a few employers (14 altogether) sell houses to nonemployees in their locality, the terms of sale are generally not so favorable as to employees; either a discount is made for employees or cash is required on sale to nonemployees and not to employees.

When there is sale to nonemployees it is frequently dictated by necessity. The company may own the whole community, but at the same time need to provide for tradesmen and artisans in the locality other than its own employees. These usually form the class of outsiders to whom sales are made.

CONCLUSION.

None of the plans of selling houses to employees as outlined above prevents ultimate speculation or realization of an unearned increment in the property. Some of them appeal to the speculative instinct of the purchaser. Obviously no plan which permits out-and-out sale and parting with title in fee simple will prevent speculation. The very most that the plans do may be to prevent speculation for the period covered by the terms of the installments where there is a repurchase agreement; if there is no such agreement, speculation is not prevented even temporarily. Plans of sale, however, clearly increase the number of those who will enjoy any accruing unearned increments and distribute that form of wealth more widely.

From the employer's point of view the gain in selling houses to his employees comes from securing a certain amount of permanent labor and thereby reducing labor turnover. In fact, some employers calculate roughly that they can afford to sell a house to a workman below cost in an amount equal to the per capita cost of labor turnover. Looked at from that point of view, it may well be worth while to the employer to give to the workman who has purchased a house a lot worth, say, \$300 or even \$500, if the workman has remained in the employ of the company for 10 years, as noted in plan of purchase submitted by a certain New England textile concern. On the basis of turnover studies which had been made for a certain company, it was proposed to return to the workman who had purchased a house \$700 of the price thereof provided he were still in the employ of the company at the end of the 15-year period, which was the period of the second mortgage provided in the plan. The employer sees in the plan of sale the possibility of securing a stable work force. In no case, however, as suggested, can he expect a permanent labor force such as might be maintained under renting conditions which might be made more attractive than purchase.

From the employee's point of view, the buying of a home is the giving of hostages to the future and thereby reducing the mobility of his capital—his earning capacity. Whether or not this will seriously impair his bargaining capacity is a moot question, as the factors determining bargaining power are numerous and manifold. At the same time the buying of a home satisfies certain acquisitive instincts of the employee and yields him a return in a feeling of independence within his own group or class. Tradition and habit also play a large part in all these matters.

LABOR LAWS AND REGULATIONS.

LAW FOR STABILIZATION OF WAGES IN GREAT BRITAIN DURING READJUSTMENT.

The problem of stabilizing wages in Great Britain after the war was promptly met by an act passed November 21, 1918, 10 days after the signing of the armistice. The act provides in brief for the maintenance of the wage rates in effect on November 11, including allowances for overtime, night work, week ends, and holidays. Exemptions may be made by an order of the Minister of Labor.

Questions as to classes of workmen to whom the law is applicable, or what is a standard rate, or whether a new rate should for any reason be substituted for an existing rate are to be determined by an interim court of arbitration. This court is to be constituted by the Minister of Labor and to represent employers, employees, and independent persons; one of the last-mentioned group is to act as chairman.

Failure of an employer to comply with the act subjects him to a penalty of £5 (\$24.33) per day, and obstructing an officer in the exercise of his powers under the act makes the offender liable to a fine of £10 (\$48.67).

The law, which is known as the Wages (Temporary Regulation) Act, 1918, is to be in effect for six months from the date of its enactment.

MEXICAN MINING CODE PROVISIONS RELATING TO LABOR.¹

ORE MINES.

The following provisions relative to employment in mines, safety requirements, and medical aid in case of accidents are found in the Mining Code of Mexico.

A detailed daily record, in which is registered the names of all miners and laborers entering and leaving the mine, and their location while in the mine, is required.

The employment of boys under 12 years of age is prohibited. Boys from 12 to 18 must be given work proportionate to their strength.

A supply of medicine and means for providing immediate aid to injured persons must be maintained. There must be in attendance one or more persons trained in first aid to the injured or asphyxiated;

¹ Coleccion de Leyes, Decretos, Circulares Acuerdos y Disposiciones referentes a la Minería. Mexico, 1918.

and in mines employing more than 100 workers the services of a surgeon must be available. All accidents, such as cave-ins, floods, fires, explosions, etc., must be reported immediately.

Every mine must be provided with at least two shafts for exit. These shall be connected at the working rooms.

When stairways are placed in the shafts, they shall be separated from the shafts, as well as from all moving machinery, by means of wooden or other suitable partitions. Such stairways and their rest platforms must assure safety and a ready passage to employees.

The mouths of all shafts, pits, and light shafts shall be protected. Protective apparatus shall be installed around all moving machines or parts thereof. Windlasses, machinery used for moving cages, buckets, etc., must be supplied with indicators to show the movement and position of the same. All cables and ropes used in conveying cages or buckets shall be protected from rocks or other objects which might fall upon or injure them. When practicable, all cages and buckets used for conveying laborers shall be provided with safety catches to operate in the event of the breaking of the cables.

The weight of passengers carried in cages must be less than that of the load usually carried therein, and the velocity must be graduated with the load. The transportation of workers and materials at the same time is forbidden. A competent person shall make a daily inspection of all shafts, cables, and machinery.

Notice of signals in use in the operation of machinery shall be posted in plain sight near the machinery, at the mouth of the shaft, and at intersections of ways. Only persons in charge of shafts shall be permitted to give orders or signals.

All insecure or unstable walls and roofs must be reinforced to prevent caving. All working places must be suitably ventilated, either by natural or artificial means. Workings either temporarily or permanently abandoned must be closed and no one permitted to enter them unless especially authorized.

When the presence of water or dangerous gases is suspected in proximity to working places, investigation must be made to discover the danger of inundation. The safety of laborers in such places shall be assured before any borings are made, and no persons shall be allowed to remain at a level below the boring.

Explosives of different composition shall be stored in separate magazines. Magazines shall be of light, fragile, impermeable, materials, shall be detached, and at a suitable distance from public roads and railroads. Protective walls shall be built on the sides where there is danger from an explosion. Unworked galleries not connected with mines in operation may be used as storage places. Explosives shall be under the supervision of a specially designated person.

Cases containing nitroglycerin shall not be stacked above 6.6 feet in height, and shall be placed so that the cartridges will be horizontal. Opening cases within storage rooms or magazines is prohibited. Detonators and explosives shall not be carried in the same conveyor. Only the quantity of explosives required for the days' work shall be removed from storage; and any quantity remaining at the close of the day shall be returned to the guardian of explosives.

Powders and nitroglycerin may be used in the form of cartridges only. Detonators and fuses shall not be attached until immediately before use. Precaution must be taken in thawing frozen dynamite.

Pincers shall be used in affixing caps, etc., to cartridges, and in no case shall an employee affix the same with his teeth. The tamping of cartridges in bore holes and similar processes shall be done by means of wooden, zinc, or copper implements.

In case a charge of explosive fails to explode, no one shall approach the locality until one-half hour after the attempt to explode it. Where several charges are placed for firing at the same time, and the explosions are so rapid that the intervals between are not distinctly noticed, the same rule applies. The removal of unexploded charges, and the redrilling of bore holes in which charges have been exploded, are prohibited.

ANTHRACITE COAL MINES.

A current of air not exceeding 105.9 cubic feet per second in velocity shall be maintained in anthracite coal mines. The air in them shall not contain more than one-half of one per cent carbonic acid, nor more than $1\frac{1}{2}$ per cent fire damp (methane). When local conditions are such that a variation in the proportion of fire damp is not prejudicial to safety, the case shall be reported to the secretary of public works for investigation and approval.

Cross-currents to galleries are required to be established not more than 32.8 feet apart, by tubes if necessary, for the purpose of carrying air to the faces. Doors, return air shafts, and distributing apparatus, used in connection with the ventilation, shall be of inflammable material.

Employees, on entering the mine, shall be inspected to ascertain if they carry any dynamite, powder, matches, cigars, unprotected lamps, or other articles capable of causing an explosion. The carrying of such articles into mines is strictly prohibited. Lamps, other than safety lamps of the safety-lock type which miners can not open are prohibited.

Ventilation shall be continuous, and shall not be stopped unless every laborer shall have vacated the mine. When ventilation has been stopped, no one shall be permitted to enter the mine until the air has been tested and found not dangerous.

The fire guard shall carefully inspect all parts of the mine at least three hours before the time for beginning operation, and when gas is discovered shall affix special signs in dangerous places; the guard shall also place a notice on the slate at the entrance of the mine, designating all dangerous places. Such notice shall be entered in the daily mine record over the guard's signature.

Only such explosives may be used as have been demonstrated within a limited charge to be the most safe.

Precautions must be taken in the fall and removal of coal so as to prevent as far as possible the generation of dust either in suspension or in accumulations. Dust must be removed frequently from roadways, and from near working places before shot firing. Shot firing shall be done at stated hours, if possible, and always when all miners, except shot firers and gas men, are outside the mine.

All installations, machinery, and transmission apparatus, both in the mine and at the surface, shall be such as present necessary safeguards against accidents which might place the lives of employees in danger.

LABOR ORGANIZATIONS.

NATIONAL WOMEN'S TRADE-UNION LEAGUE OF AMERICA.¹

BY MARY T. WAGGAMAN.

ESTABLISHMENT AND GROWTH.

The increasing numbers of women in industry and the growing complexity of their problems suggested the need of a collective agency to voice the aspirations of these workers and grapple with their special difficulties. To meet this need it was proposed at the convention of the American Federation of Labor, held in Boston in 1905, to establish a national organization of working women, whether in unions or not. Such organization was also to include sympathizers with the movement who were not in the ranks of labor. The proposal resulted in the formation that same year of the National Women's Trade-Union League. Mrs. Mary Morton Kehew, of Boston, was elected president and Miss Jane Addams, vice president. In the first years of its existence the league's work consisted principally in establishing contacts with the workers and in other preparatory activities.

In 1907 Mrs. Raymond Robins of Chicago was elected president and still holds this office.

By the latter part of 1909 the league had branches in four cities—Chicago, Boston, New York, and St. Louis—and by the end of the summer of 1911 in five other cities—Springfield, Ill., Cleveland, Kansas City, Mo., Baltimore, and Denver. In 1914 the Los Angeles committee and the Philadelphia league were added. A charter was granted in 1916 for a local league in Worcester, Mass., and in April, 1918, the Washington, D. C., committee was established. Recent new branches have been located in Tri-city (Davenport, Rock Island, and Moline), Cincinnati, Grand Rapids, Detroit, and the Twin Cities (St. Paul and Minneapolis). The total number of city branches is now 16, the Los Angeles and Cleveland organizations having gone out of existence.

COOPERATION WITH OTHER ORGANIZATIONS.

The league has paid particular attention to cooperation with other bodies working along similar lines. In the early days of the league Mrs. Raymond Robins, the president, and Miss Agnes Nestor, a member of the national executive board, were appointed on the industrial education committee of the American Federation of Labor,

¹ Headquarters, 139 North Clark Street, Chicago, Ill.; secretary, Miss Emma Steghagen.

and Mrs. Robins acted as fraternal delegate of the league at the 1911 and 1912 conventions of the federation. The league was also represented by a fraternal delegate at the 1911 and 1912 conventions of the National American Woman Suffrage Association.

Cooperative relations have also been established with the American Association for Labor Legislation and the Cooperative League of America; and at the time of the second biennial convention held at Chicago in the fall of 1909 the league was directly affiliated with labor organizations in as many as eight different States. Among these organizations were the San Francisco Labor Council, the Rochester (N. Y.) Central Trades and Labor Council, and the Wisconsin State Federation of Labor.

International relations have not been neglected. Early in its history the league's president was requested to serve on the advisory committee of the International Woman Suffrage Alliance, and later the league was represented at the International Conference of Women held at The Hague. More than 10 years ago at one of the league's interstate conferences a resolution was passed that league officers be instructed to bring about the fullest cooperation possible with foreign women's trade-unions. The women unionists of Germany and England sent delegates to the second biennial convention, while the women unionists of France had a representative at the 1917 convention.

WORK IN BEHALF OF SOCIAL LEGISLATION.

Resolutions and recommendations adopted at the six biennial conventions and at other conferences of the organization assert the following basic principles of the league:

Organization of all workers in trade-unions.

Equal pay for equal work.

Eight-hour day.

Living wage.

Full citizenship for women.

The first number of *Life and Labor*, the official organ of the league, issued in January, 1911, set forth in the leading editorial the policy of the league:

Every intelligent person who has given attention to social and industrial conditions in America knows that these are all wrong, so wrong that a radical change in the industrial basis of our civilization is as imperative as it is inevitable.

Such a radical change can come only in one of two ways. If the whole burden of remedying unfair industrial inequalities is left to the oppressed social group we have the cruel and primitive method of revolution.

To this the only alternative is for the whole community, through cooperative action, to undertake the removal of industrial wrongs and the placing of industry upon a basis just and fair to the worker.

Since *Life and Labor* stands primarily for the bringing about of just such social conditions, we hope to do our share in making possible that mutual understanding which must precede and accompany effective cooperative action.

In accordance with this policy the league has been active in supporting social legislation. It took part in the campaigns for shorter working hours for women in Illinois, Missouri, and Ohio. Among the measures approved by its legislative committee in 1915 for introduction into State legislatures were those on the following subjects:

Study and prevention by State of occupational diseases.

Increase in number of women inspectors, and placing of labor and factory departments on a nonpolitical and scientific basis.

Prohibition of the employment of women two months before and after childbirth.

Pensions for working mothers during lying-in period.

Protection of the savings of workers.

Compulsory notice by employers in advertisements for employees in time of strike that a strike is in progress.

When in 1917, under the plea of war necessity, efforts were made to lower labor and educational standards, the league, at its biennial convention, strongly opposed such attempts, and declared in favor of the establishment of international labor agreements standardizing industrial conditions. In 1918, at an interstate conference, it urged that "a minimum wage for women workers be based on the living expenses of a family of five as is contemplated for men."

Between the biennial meetings many of the local leagues are active in support of social legislation. For example, the present secretary of the New York league succeeded in getting the New York Federation of Labor to make the eight-hour bill for women a "preferred measure," and the league is now working for the passage of five measures designed to protect women workers. In November, 1918, a conference was held under the auspices of the Philadelphia league, at which 20 local unions and various other women's organizations agreed to unite with the State Federation of Labor in support of an important legislative program.

A committee has been organized in New York City by trade-union women to inform workers of the legislative measures in which the league is interested. All candidates for office are asked to report on blank forms how they stand on the legislation which the league is indorsing.

ORGANIZATION WORK AND OTHER ACTIVITIES.

In the period 1909 to 1911 there were many strikes among unorganized woman workers, especially in the clothing trades. The National League and the Chicago, New York, and Philadelphia branches did active work in some of the largest of these industrial conflicts in the cities named. The experience gained by the league in the strike of the garment workers in Chicago and of the shirt-waist workers in New York and Philadelphia led to the formulation of the following definite plan of action for local leagues in future strikes: (1) Organization and direction of public opinion; (2) patrol of

streets; (3) fair play in the courts; (4) help in the raising of funds through unions and allies; (5) help in the formation of trade-union organizations where workers are unorganized.

On June 19, 1917, the league passed and presented to Secretary McAdoo a resolution protesting against the excessive overtime worked at the United States Bureau of Engraving and Printing. Other organizations joined in a campaign to remedy this condition, and the outcome was the establishment of an eight-hour day for the employees of that bureau. The league, together with various other interested organizations, undertook to secure an increase in salary for the women operatives in the bureau. While Congress did not grant the full increases asked for, the minimum for bureau women was raised 45 cents a day.

The league supported the women street car conductors of Detroit in the fight for their jobs after the signing of the armistice. It also espoused the cause of the women conductors of Cleveland and aided in securing a hearing for them before the National War Labor Board. Following on this hearing, the board handed down a decision March 17, 1919, directing the company "to restore these women discharged on March 1 last to the position that they had in seniority and other privileges."

In May, 1913, the executive council of the American Federation of Labor voted \$150 a month for one year to help the league finance the task of training and equipping women to organize labor. Some time later it was decided that the Federation and the National Women's Trade-Union League should cooperate in the selection of an organizer to be paid by the Federation.

School for Woman Organizers

The league maintains a school at which women are trained in organization work. The need of such a school was demonstrated by the fact that between the 1911 and 1913 annual meetings requests for organization work among woman workers came from 19 different States. The establishment of a training school was recommended at the 1913 convention and within the year the school was started in Chicago under the management of the officers and members of the league's executive board and a special committee. The following curriculum (for 1916-17) shows the lines along which the students are instructed:

ACADEMIC WORK.

Regular courses in—

1. Industrial history.
2. Study of the rise of labor organizations—trade-unionism.
3. Study of women in industry with special reference to the organization movement among women.

Regular courses in—

4. Study and analysis of judicial decisions affecting labor—specific labor trials and injunction suits.
5. Effective speaking.
6. English and other elementary subjects.
7. Trade agreements—study of function, theory, and practical operation.

Special lectures on—

- Woman suffrage.
- Legislation for women and children.
- Socialism, single tax, anarchism, etc.
- Present day labor organizations—men's and women's qualities of leadership.

FIELD WORK.

Organization—Methods in theory and practice.

Office administration, including experience in bookkeeping, filing and cataloguing, and familiarity with the routine of a large and well-organized office.

Legislative methods—practical experience at Springfield and elsewhere with lobbying for a bill.

Parliamentary law—practical training in presiding at a meeting, writing of minutes, general conduct of public meetings.

GENERAL.

Regular gymnasium.

Regular recreation and play.

Attention to health and dress.

In connection with the management of the school it was recommended that in the girl's application for entrance she state how long she had been a member of the union, whether she had ever held an office in the union, and whether she had acted on union committees or taken part in any wage agreements or strikes.

WORK OF THE WASHINGTON (D. C.) COMMITTEE

As illustrative of the practical work of the local leagues and committees, the following brief account is given of some of the activities of the Washington committee which was established in April, 1918. The organization started in at once to assist the girl cigar makers of a large factory in the capital who were on strike. These girls were unorganized when they went on strike, but through Miss Mary Anderson, national organizer, steps were taken to have them affiliated with the Cigar Makers' International Union. The strike involved about 80 girls and half a dozen men and it lasted about eight weeks. The case was brought before the National War Labor Board through the Washington committee and was afterwards referred to the conciliation division of the Department of Labor. A settlement was effected in which all the demands of the strikers were granted.

The Washington committee gave its indorsement to the minimum wage bill for the District of Columbia and supported the Army nurses' plea for military rank. Beginning May 19, 1918, a series of

public meetings were held under the auspices of the league and local unions, at which special sessions were devoted to the interests of waitresses, stenographers, and other office workers, and employees of the Bureau of Engraving and Printing.

REPRESENTATION AND RECOGNITION.

The league has consistently demanded representation for women. A resolution adopted at the 1909 biennial meeting called for the establishment in the United States Bureau of Labor of a "specific department for the investigation and report from time to time upon the condition of working women in the United States, with special reference to protective legislation directed to the preservation of health, safety, and morals of the motherhood of our people," and urged that a woman be appointed as the head of this department. The creation in the summer of 1918 of the Woman in Industry Service in the Department of Labor was, therefore, regarded by the league as the fulfillment of a long-felt need.

In the past two years the league has urged the election of women delegates to the convention of the American Federation of Labor, the inclusion of trade-union women in the Federation's delegation to the International Labor Congress to be held at the time of the peace negotiations, the calling of an international congress of working women to be held at the same time, the appointment of women in the commissary departments of the Government, and the appointment of two women—one of them a trade-unionist—on the National War Labor Board.

Some of the officers and members of the National Women's Trade-Union League have recently served or are serving in positions of considerable importance. Among the positions filled by league members are those of chairman of the committee on women and children in industry of the Illinois division of the Council of National Defense; member of the Illinois Health Insurance Investigating Commission; vice president of the Massachusetts State Federation of Labor; chief of a division of the National War Labor Board; assistant director of the United States Working Conditions Service; member of the Minimum Wage Commission of the District of Columbia; member of the advisory council to outline the plans for a woman's division in the United States Department of Labor; members of the committee on women in industry of the Council of National Defense; assistant to the chief of the Women's Division of the United States Employment Service; and assistant director of the Woman in Industry Service of the United States Department of Labor.

A plan for sending woman representatives of woman workers to the Paris peace conference was agreed upon by the executive board of the league, and, being laid before President Wilson, received his

approval. Accordingly Miss Mary Anderson, national organizer, and Miss Rose Schneidermann, president of the Women's Trade-Union League of New York and a member of the executive board of cloth cap and hat makers, have been sent abroad as representatives of the league. One of the chief points to be urged by Miss Anderson and Miss Schneidermann is "the representation of women in the proposed international labor commission and an international labor bureau that may be established."

RECONSTRUCTION PROGRAM.

The program of the social and industrial reconstruction committee of the league reiterates a number of the demands previously voiced by the league in resolutions and declarations at its biennial conventions. New demands are included to meet new conditions. The committee asks for compulsory education up to 16 years of age and part-time education up to 18 years, abolition of child labor, an 8-hour day and a 44-hour week, no night work for women, one day's rest in seven, equal pay for equal work, equal opportunity for men and women in trade and technical training, social insurance against sickness, accident, industrial disease, and unemployment, and provision for old-age and invalidity pensions and maternity benefits. Other sections of the program are given below:

We urge a complete restoration, at the earliest possible moment, of all fundamental political rights—free speech, free press, and free assemblage, and the removal of all war-time restraints upon the interchange of ideas and the movements of peoples among communities and nations. We ask an immediate amnesty for all political prisoners.

We ask that the principle of self-government in the workshops be established in all industry, both public and private, and that the right of the workers to organize into trade-unions be recognized and affirmed.

We urge the full enfranchisement of women, and that they be accorded political, legal, and industrial equality; and further, we urge the adoption of the most modern methods of representation for the establishment and maintenance of political democracy.

We ask for the establishment of universal social standards, a single standard of morality, the protection of motherhood, and the guaranty to every child of the highest possible development, physical, mental, and moral.

* * * * *

We reaffirm our stand in favor of the Government ownership of public utilities and the nationalization and development of natural resources—water and unused land.

In order that the problems of women wage earners in the United States may be dealt with as intelligently as possible, we further urge:

That the Woman in Industry Service of the United States Department of Labor be placed on a permanent basis.

That in every State department of labor a woman's bureau be established, to care for the protection and welfare of women workers.

That provision be made for increased appropriations for State factory departments, and for the appointment of woman inspectors in the proportion of one for every 15,000 woman wage earners.

That woman workers be represented upon all State and Federal administrative boards.

That the Federal and State employment agencies be coordinated and standardized and all private agencies be abolished.

That the use of the injunction in labor disputes be abolished by embodying the principles of the Federal Clayton Act in State legislation—this we ask for the protection of the organization of the workers.

We, the committee on social and industrial reconstruction of the National Women's Trade-Union League of America, recognizing that the problems here presented concern—in whole or in part—working women the world over, urge again the calling of an international congress of working women for the exchange of thought and the concerted action required by the task before us.

The league's seventh biennial convention will be held in Philadelphia, beginning June 2, 1919.

TRADE-UNIONS OF ALSACE-LORRAINE.

According to the *Correspondenzblatt*¹ it is difficult to ascertain exactly from the proceedings of the conference held in Strassburg on January 4, 1919, the attitude of the Alsace-Lorraine trade-unions in the matter of a union with France. The object of the conference was to regulate the relations of the Alsace-Lorraine trade-unions with the French trade-unions' federation.

The spokesman of the former, Herr Imbs, in his opening speech remarked: "We desire jointly to try to discover the most practical way of amalgamating with the French trade-union organization. The language difficulty prevents amalgamation from taking place as speedily as we all wish. The members of the Alsace-Lorraine trade-unions can read only German papers. But this is only a temporary difficulty which ought soon to be surmounted. The most reasonable way would be to unite the existing trade-unions in Alsace-Lorraine in a district association, which would then as a whole amalgamate with the French trade-unions' federation." Herr Imbs then proposed that the 48 existing trade-union groups should be united according to trades in 14 industrial associations, but the representatives of the French trade-unions' federation objected to this plan, since it was contrary to the principles of the French trade-union movement, which preferred to unite the groups in associations according to trades and industries and not in district organizations. After a lengthy discussion, a resolution proposed by Herr Imbs, providing for three district associations with headquarters in Metz, Strassburg, and Muhlhausen, which will embrace all the trade-union groups in their districts, was carried unanimously. These three associations are to form the regional association Alsace-

¹ *Correspondenzblatt der Generalkommission der Gewerkschaften Deutschlands.* Berlin, Jan. 25, 1919.

Lorraine, which, as such, will be joined to the French trade-unions' federation.

It was further decided to publish a trade-union journal in German, with articles in French, to which later on a French supplement will be added. With reference to immediate amalgamation with the French central organization, a Lorraine representative pointed out that it might lead to various difficulties. The German organization to which all contributions had been paid hitherto might make the amalgamation an excuse for refusing to make refund to Alsace-Lorraine until the peace treaty was signed and also withdraw support of other kinds to which the Provinces were entitled. The difficulty would be all the greater since the Alsace-Lorraine trade-unions had always paid up all their subscriptions, while those of Berlin were still in arrears. The excitement aroused by this statement was ended by an announcement by M. Jouhaux that the Alsace-Lorraine trade-unions might rely completely upon the moral and material support of the French organizations, whereupon immediate amalgamation was at once agreed to.

CONCILIATION AND ARBITRATION.

AWARDS AND DECISIONS OF THE NATIONAL WAR LABOR BOARD.

THE NEW YORK HARBOR STRIKE.

As chronicled in the February issue of the MONTHLY LABOR REVIEW (pp. 12-27), harbor traffic at the port of New York was completely paralyzed when, on January 9, 1919, practically all of the 16,000 men employed on harbor craft went on strike, demanding a reduction of hours from 12 to 8 per day and an increase in wages. The strike threatened to involve teamsters, drivers, and chauffeurs engaged in general trucking. Upon request by President Wilson the National War Labor Board took up the case and, failing to reach a unanimous agreement upon certain disputed points, referred the matter to one of its umpires, V. Everitt Macy, who, on February 25, submitted his decision. When the board assumed cognizance of the controversy all the employees agreed to submit to its jurisdiction and be bound by its decision. This attitude was likewise taken by the governmental agencies operating boats in the harbor, namely, the Railroad Administration, the Shipping Board, the Navy Department, and the War Department, and by one private boat owner, namely, the Red Star Towing & Transportation Co. The submission by one private company was for the purpose of enabling counsel for private boat owners to submit evidence and cross examine witnesses without binding all private owners. Under the rules of the National War Labor Board only those controversies in which both parties jointly submit to the board can become a matter of arbitration, and thus go to an umpire in case of failure on the part of the board to reach an agreement. The Macy award, therefore, it is important to note, could apply only to a limited number of harbor workers.

While not definitely prescribing the 8-hour day for all the workers affected, the Macy award does reaffirm the desirability of limiting the working day to 8 hours. No increase of wages is awarded, the wage scale remaining the same as fixed in the award of the New York Harbor Board dated July 12, 1918,¹ and in the award of the Railroad Administration Board dated September 1, 1918. Because of the very great importance of the New York Harbor case and in view of the fact that the history of the controversy has been followed in considerable detail in the MONTHLY LABOR REVIEW, it is deemed advisable to publish a summary of the award of the umpire.

¹ For text of this award see MONTHLY LABOR REVIEW for September, 1918, pp. 22-26.

The questions submitted to Mr. Macy as arbiter of the National War Labor Board were divided as follows:

(a) Was the War Labor Board, in hearing this case, acting in place of the former New York Harbor Board, and therefore limited as to what matters it could consider by an award of the New York Harbor Board dated July 12, 1918?

(b) Request for the eight-hour day.

(c) Increase of wages, and changes in classifications.

(d) Changes in conditions of employment.

(e) The question as to whether the findings should be retroactive in application.

(a) *Limitation of questions to be arbitrated.*—No limitation as to what the board was to consider was made by the President in his request of January 11, 1919, to the board to take up the case, and no restrictions were imposed by the Government departments in a letter of the same date nor by the Marine Workers' Affiliation. The award made July 12, 1918, by the New York Harbor Board, effective June 1, 1918, was to remain in force until May 31, 1919, unless in the opinion of the board conditions were such as to warrant a change.

It was the opinion of the umpire, contrary to the contention of some of the members of the War Labor Board who held that nothing had occurred to warrant a change in the award of July 12, 1918, that the effect of the armistice had been materially to change conditions and to inaugurate a period of falling prices and an over-supply of labor against the high prices and labor shortage which had necessitated higher wages and longer hours in the previous period. Also, as the employers concerned in the award of July 12, 1918, had refused to allow the New York Harbor Board to function and as the War Labor Board was asked not to interpret the previous award but to consider the entire situation, it was therefore decided that the War Labor Board was not limited by the award of July 12, 1918.

(b) *Request for an eight-hour day.*—The justice of the basic eight-hour day and where possible the straight eight-hour day with the corresponding obligation on the part of labor to render better service for the fewer hours worked was recognized by the umpire, chiefly as a principle.

The classification used by the New York Harbor Board was followed in making the award, namely: Ferry boats; tugs, other towing vessels, and steam lighters; lighters, covered barges, and hoisters; coal and grain boats; scows, and dumpers.

For those tugboats, other towing vessels, and steam lighters which employed two crews and for ferryboats it was found that the eight-hour day or forty-eight-hour week was reasonably practical. For single-crew boats, however, in view of the large mass of testimony and exhibits placed before the arbiter which gave little exact information and which were based largely on the abnormal conditions prevailing in the port of New York since 1914, it was held that in

order to make a fair decision a careful study of the conditions connected with the work of these boats was necessary. To that end it was ordered that a commission not exceeding ten in number be formed to be composed of two representatives of the Government, including the Railroad Administration, three private employers, and five members of the Marine Workers' Affiliation. If such a commission were not organized voluntarily and an investigation started by the first of April, the War Labor Board should itself name the commission which should submit a report by June 1, 1919, in order that a decision might be rendered by the board before July 1, 1919. Pending this decision the hours should remain the same.

Increase in wages.—In regard to the increase in wages asked it was held that there was nothing to show that the men did not ask for the full wage desired in June, 1918, and that if there had been any change in the cost of living since then it had probably been in favor of the men. Further than this it was held that if the men should receive the same wages for eight hours that they had received for twelve the labor cost to the industry would be increased by fifty per cent. Therefore it was decided that the award of July 12, 1918, and that of the Railroad Administration of September 1, 1918, should remain in effect, there being no reduction in wages for those whose daily or weekly hours were reduced.

Working conditions.—The following findings in regard to working conditions were common to all four classes of boats under consideration:

Six days shall constitute a week's work.

Overtime on week days to be paid for at one and one-half times the regular rate.

Double time shall be paid for work on the following holidays: New Year's Day, Fourth of July, Labor Day, Thanksgiving Day, and Christmas Day.

Double time shall be paid for work on Sundays unless the employee has already had one day's rest in seven, or will have one such day in the current swing of his shift.

Crews are entitled to pay on Sundays and holidays for only the actual number of hours they are on duty.

One week's vacation with pay shall be allowed each employee who has been in the service of the company for a period of one year or more.

The hourly rate for men on a monthly wage to be computed by multiplying the number of hours in the working day by 313 and dividing this product into the monthly wage multiplied by 12.

Rules as to working conditions relating to but one of the classes were as follows:

Tugboats and other towing vessels and steam lighters.—Twelve hours shall constitute a day's work where one crew is now employed.

Six days or 48 hours shall constitute a week's work for boats having more than one crew, the day off to be determined by the employer.

In the case of those men who, owing to the shorter workday, need no longer be boarded by the company, or who may be boarded only part of the week as may occur in the case of those working on a 48-hour week, 75 cents a day shall be added for each

day they are not so boarded, or 25 cents for each meal provided by the company in cases where shifts are changed between meals. This provision does not apply to crews of ferryboats, tugs, and steam lighters now receiving the hourly rates contained in the order of the Railroad Administration Board, effective September 1, 1919, as hourly rate received by these men provides for them to board themselves. This provision applies only for six days a week, unless the employees work an extra seventh day.

Car fare is to be paid by employer when boats change crews at other than designated points.

Ferryboats.—Eight hours shall constitute a day's work.

Lighters, covered barges, and hoisters.—Ten hours shall constitute a day's work.

All car fares in excess of 10 cents to be paid by the employer to men living within the metropolitan district, and all car fares to be paid by the employer when the men are on the company's business.

The captain shall receive \$1.50 for each night he is required to be on his boat for the purpose of watching or towing.

Scows, dumpers, coal boats, and grain boats.—The captain of these boats shall receive \$1.50 for each night that he is required to be active for at least one hour after 6 p. m. in the loading or discharging of cargo.

Retroactive request.—In regard to the request to make the findings retroactive there was nothing to be gained by doing so since it is impossible to return the hours and no increases in the wage scale had been granted.

After the announcement of the award, the employees as a whole refused to accept it and again went out on strike. Within a few days' time the Railroad Administration entered into an agreement with its employees, practically conceding their demands and in effect overthrowing the Macy award. The other governmental agencies concerned, which were presumably about to enforce the Macy award, ultimately fell in line and entered into a similar agreement with their workers. The employees of the private boat owners remained on strike, demanding the same consideration that employees on boats operated by governmental agencies had received. This is the situation as it exists at the time the REVIEW goes to press (Mar. 30).

MACHINISTS ET AL v. EMPLOYERS OF MADISON, WIS.

On February 18, 1919, an umpire of the National War Labor Board rendered a decision in a case affecting nine companies in Madison, Wis., and the machinists in their employ (Docket No. 195, *Machinists et al v. Employers of Madison, Wis.*), the board having failed, upon joint submission of the case, to reach a unanimous conclusion. The demands of the employees of each company were identical, and were submitted early in June, 1918, as follows:

1. An increase in the minimum wage rate equal to that granted by the Great Lakes shipping award.¹
2. A system of collective bargaining through the agency of shop committees, elected for that purpose.

¹ See MONTHLY REVIEW for May, 1918 (p. 142).

3. That eight hours be established as the basic workday.
4. Time and one-half for overtime, except Sundays and holidays, for which double time shall be paid, and an additional 5 per cent for men on night work.
5. The abolition of the bonus and premium systems, and the establishment of a flat hourly rate.
6. The establishment of a minimum wage for women with a 48-hour week as a maximum.
7. The increase of wages as granted to be retroactive as of June 10, 1918, with an adjustment as of that date of all bonuses earned.
8. Award to apply to men and women employed on piecework, by the hour, day, week, or month, excluding the employees working in the offices.
9. Women to receive the same wage as men for the same work.
10. That if there be an award based on the Great Lakes shipping schedule, as of April, 1918, any increase granted in that industry prior to February 1, 1919, shall automatically apply to the Madison plant.

Upon refusal of the employers to concede the demands, strikes took place in a few of the plants, but these were terminated when the agreement of submission was effected. In his decision the umpire first points out the differences in conditions affecting the Madison workers and those who benefited by the Great Lakes shipping award mentioned in the first demand of the employees, and then calls attention to the board's precedents relating to the matter of pay for night work, minimum wages for men and women, respectively, hours of labor, and the right of workers to organize and bargain collectively. On these points the decision is quoted in full, as follows:

Madison is not what is known as an industrial center. It is a city of about 38,000 people, located in the midst of an agricultural region, about 80 miles west of Milwaukee, Wis., and about 140 miles northwest of Chicago, Ill. It is the capital of the State, and the seat of the University of Wisconsin. There are no large manufacturing cities near Madison, and the cost of living is low compared with many other cities of equal or greater population in the same general territory. In short, the conditions of living and of labor and employment in Madison are not fairly to be compared with those in any shipyard on the Great Lakes, or with Milwaukee or Chicago. There is no organization of the manufacturing interests of Madison.

The manufacturing industries in Madison are comparatively small, employing relatively few men. The workmen are engaged in special employment, not comparable in all respects to the classes defined and outlined in the Great Lakes award. Many of the employees in Madison have continued with the same factory for years, having no previous experience. Many, if not most of them, were recruited from farms, railroads, or other activities in the region. Separated from the particular employment in which they have specialized for years they would have no particular fitness for employment elsewhere. That is to say, employees called machinists, etc., are not those who have had years of apprenticeship and who could take a set of blue prints and erect a machine. They have learned to operate a particular machine to produce a certain article, or part of an article. It is true that in some factories in Madison there are a few men who could qualify as machinists, molders, etc., in the accepted meaning of the terms, but for the most part such workers are employed as foremen or superintendents. It would no doubt be possible to classify the employees in each industry in Madison, but the result would not, under present conditions, lead to uniformity of wages as between the different industries, or conduce to greater equality of payment or circumstances respecting employment.

Madison is an established community, where the workers, to an unusually large extent, own their own homes or have resided there for a long time, so that the conditions are entirely different from those which obtain where workmen are entitled to higher wages as compensation, in part, for the added expense and inconvenience of living accommodations. In the shipbuilding industry contracts are ordinarily of long duration and are on a noncompetitive basis, while in Madison the business, for the most part, is on a highly competitive basis and of an utterly different sort from shipbuilding.

However, the workman, wherever he may be, is worthy of his hire. We are bound to take into consideration the high cost of living when measuring his compensation for a day's work. The record shows that the cost of living in Madison has not increased on the whole as rapidly, nor reached as high a level as many other points to which reference is had in evidence. In fact, the evidence as to the cost of living is not extended nor convincing. It can not be determined on this record just what daily charges the factory workers of Madison are required to meet in order to insure to them a comfortable living. It appears that the increase in living costs in Madison was about 60 per cent greater in 1918 than in 1914. Certain workers find it difficult to secure the ordinary comforts of life at the wages they receive from some of the employers in Madison. Such a condition ought not to exist anywhere. A worker is entitled, if he be sober and industrious, as a matter of right, to something more than the bare living cost. His right is to receive a wage that shall insure to himself and dependents those ordinary comforts of life that go to make up a happy home.

It is argued by the employers that because their employees have had their wages increased from time to time, so that the wages now received represent about the same percentage of increase as the increase in living cost, they have done their full duty in the premises. This, of course, must be based on the assumption that in 1914 the wages paid represented all that the worker was then entitled to, which assumption is not established on this record.

It is also argued by the employers that the wages now paid in the factories of Madison are as high as, or higher than, are paid by the State of Wisconsin and the city of Madison and that therefore a wage level is established which it would be unwise to change or disturb. This argument has little force. Carried to its logical conclusion, workers would always be required to accept low wages, provided the majority in the same community received low wages. It would always mean a reduction to the lowest level, which is neither just to the worker or the community as a whole. In any event, there is no just comparison between workers in factories and those employed by State or municipal authorities. Certainly unduly low wages paid by the latter can not rightfully constitute the just measure for the former. The test is not so much what the level is, as how that level measures up with the cost of living. Workmen are entitled to comfortable living wages, and no comparisons that might be presented are sufficient to overturn or outweigh that principle.

It has been frequently decided by the War Labor Board that the minimum hour's wage, based on an eight-hour day, should not be less than 40 cents. In a number of cases the minimum wage has been fixed at 42½ cents an hour.¹ Conditions of living at Madison are exceptionally favorable. It is a well-nigh universal rule, where the question has been raised and decided, that 5 per cent to the rate for day work should be added for night work.

With respect to women, it is settled by numerous decisions that 35 cents an hour is a reasonable minimum; and it is agreed by the employers in these cases that women should receive the same wages as men for the same work, and should not be required to perform work beyond their strength.

¹ See Docket No. 163, in re *Employees v. Worthington Pump & Machinery Corporation, Power & Mining Machinery Works, Cudahy, Wis.* Noted in MONTHLY LABOR REVIEW for August, 1918 (pp. 72, 73).

With one or two exceptions, hereinafter noted, the basic day's work in Madison is 10 hours, with a half day off on Saturday in the summer time, and with no extra compensation for overtime or for work during holidays. The time has now come as a settled national policy that eight hours shall constitute the basic day's work. It is not necessary to repeat arguments that sustain this principle. It is sufficient to refer to the Packing House case decided by Judge Alschuler,¹ and the decision by Justice Clark in *Award in re Molders v. Wheeling Mold & Foundry Co.*, Wheeling, W. Va.,² and the decision of the Railroad Wage Commission.³

The question here is not whether eight hours shall constitute the limit of time beyond which a worker shall be permitted or required to work. The question is with respect to the establishment of an eight-hour basic day's work, with time and one-half for overtime and double time for work on Sundays and holidays. On reason and authority both these contentions have frequently been decided in favor of the employee's contentions.

The principles upon which the War Labor Board was founded recognize the right of employees to organize and bargain collectively, and there shall be no discrimination or coercion directed against proper activities of this kind. Employees in the exercise of the right to organize shall not use coercive measures of any kind to compel persons to join their unions or to induce employers to bargain or deal with their unions.

These principles are incorporated in the awards affecting the nine companies parties to the dispute. Without giving the awards in detail, the following points may be noted as applying to one or more of the awards:

1. Minimum rates of hourly wages, based on an eight-hour day, for employees over 21 years of age who have been employed for six months or more, fixed at 40 cents for men and 35 cents for women.
2. Eight hours fixed as a day's work, overtime to be paid for at the rate of time and one-half, and work on Sundays and holidays to be paid for at double the normal rate.
3. Night work to be compensated for at the rate of 5 per cent increase over the day rate.
4. Recognition of the right of employees to organize into trade-unions and to bargain collectively through their chosen representatives.
5. Discrimination by employers against employees for membership in a labor union or for legitimate trade-union activities prohibited.
6. Bonus and premium systems, as affecting two companies, abolished.
7. Awards effective as of August 1, 1918.

AWARDS AFFECTING STREET AND INTERURBAN RAILWAY EMPLOYEES.

In the September, 1918, issue of the MONTHLY LABOR REVIEW (pp. 30-32) and in the January, 1919, issue (pp. 34-36), summaries of awards affecting street and interurban railway employees were

¹ See MONTHLY REVIEW for May, 1918 (pp. 115-127).

² See MONTHLY LABOR REVIEW for November, 1918 (pp. 29-34).

³ See MONTHLY REVIEW for June, 1918 (pp. 21-45).

given, the last reference including a table showing new scales of wages granted by the National War Labor Board. Continuing this record, a table is here presented showing the wages fixed by the board during the month of January, 1919, and down to February 4, inclusive. To meet the additional expense occasioned by these increases in wages the board recommends in practically every case that reconsideration be given by the proper authority of the fare which the company is allowed to collect from its passengers, the text of this portion of the award being the same as that used in the award in the Cleveland case.¹ In each of the following cases the controversy was between a specified division of the Amalgamated Association of Street and Electric Railway Employees of America and the respective companies, and the name of the association is therefore not repeated in each instance:

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

Case and docket number. ¹	First 3 months of service.	Next 9 months of service.	After 12 months' service.	Minimum wage fixed. ²
Amalgamated Association of Street and Electric Railway Employees of America, Division No. 767, v. Knoxville Railway & Light Co. (Docket No. 251).....	36	38	40	36
Division No. 847 v. St. Joseph Railway, Light, Heat and Power Co. (Docket No. 950).....	38	40	42	42
Division No. 809 v. Ohio Electric Railway Co. (Zanesville lines) ³ (Docket No. 627a).....	38	40	42	.....
Division No. 839 v. Ohio Electric Railway Co. (Newark lines) ⁴ (Docket No. 627c).....	41	43	45	42
Division No. 568 (Subdivision No. 1) v. Cleveland & Erie Traction Co., Girard, Pa. (Docket No. 631).....	39	41	43	42
Division No. 811 v. Reading Transit & Light Co. (Norristown division), Reading, Pa. (Docket No. 550) ⁵	41	42	43	.....
Division No. 831 v. the Louisville Railway Co. and the Louisville Interurban Railroad Co., Louisville, Ky. (Docket No. 414 and 414a) ⁶	41	43	45	40
Division No. 845 v. Ohio Electric Railway Co. (Springfield interurban lines) (Docket No. 627b).....	41	43	45	42
Division No. 852 v. Ohio Electric Railway Co. (Lima interurban lines) (Docket No. 627).....	41	43	45	42
Division No. 620 v. Boston & Worcester Street Railway Co. (Docket No. 851).....	42	44	47	42½

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

² Applies to employees other than motormen and conductors.

³ Applies also to Lima city lines and to Newark city lines.

⁴ This rate is for Newark interurban lines. The minimum wage rate also applies to Newark city lines.

⁵ These rates were voluntarily fixed by the company and approved by the board.

⁶ These rates apply to the Louisville Railway Co. Rates to be paid by Louisville Interurban Railway Co. are, respectively, 42, 44, and 46 cents per hour.

In one of the awards, the first in the table, the board makes a definite recommendation as to the financial assistance that should be given the company, using the following words:

We recommend that there should be an increase of at least 1 cent, so as to make the fare 6 cents, and probably more than that; and if the consent of the municipality be necessary to secure such increase we recommend that the proper authorities grant same.

¹ Noted in the MONTHLY LABOR REVIEW for September, 1918 (pp. 30-33).

In one street-railway case before the board (Division No. 735, etc., *v. Jacksonville Traction Co.*, Jacksonville, Fla.; Docket No. 83) the evidence seemed to show that the company was violating the policy of the board in not permitting its employees to organize into labor unions, and a recommendation is made "that this company, as a matter of plain right and justice and in conformity with the announced principles of this board, give full and free permission to its employees to organize in labor unions."

In another case not included in the table (Division No. 589, etc., *v. Boston Elevated Railroad Co.*; Docket No. 181) the board approves the findings of its representatives acting as arbitrators and establishes the following wage scale:

	Cents.
Car-house repairmen, first class.....	55
Car-house repairmen, second class....	50
Car-house repairmen, third class.....	45

The first class shall include men on the rapid-transit lines now receiving 48½ cents and men on the surface lines now receiving 43½ cents.

The second class shall include men on the rapid-transit lines now receiving 43½ cents and men on surface lines who, prior to the board's award, received 30 cents plus 2 cents per hour, or men who have been promoted to that class since the award.

The third class shall include men on the rapid-transit lines now receiving 42½ cents per hour, and men on the surface lines who, prior to the award, received 26 cents plus 2 cents, or men who have been promoted and appointed car-house repairmen since that time.

	Cents.
Trackmen (surface and rapid transit):	
Night men.....	50
Day men.....	48
Welders.....	60
Rail grinders:	
First class.....	53
Second class.....	50
Switch repairmen.....	50
Center-plate repairmen.....	50
Track walkers.....	50

Rates established by an award affecting employees, interurban lines, members of Brotherhood of Locomotive Engineers, Division No. 277, Brotherhood of Railway Trainmen, Division No. 130, and Order of Railway Conductors, Division No. 91 *v. Portland Railway, Light and Power Co.* (Portland, Oreg.), (Docket No. 210), were given in the article in the MONTHLY LABOR REVIEW for January, to which reference has been made. The parties in this case, having since reached an agreement modifying in part this award, petitioned the National War Labor Board for approval of said agreement. Approval was entered, fixing a new scale of wages as follows:

NEW WAGE SCALE FOR CERTAIN EMPLOYEES OF PORTLAND (OREG.) RAILWAY,
LIGHT AND POWER CO.

Branch of service.	Con- ductors.	Brake- men.	Motor- men.	Trolley- men.
Passenger and express.....	<i>Cents.</i> 54	<i>Cents.</i> 47	<i>Cents.</i> 54	<i>Cents.</i> 46
Freight: ¹				
Local.....	56	47	56	46
Work train.....	56	47	56	46
Night yard.....	60	52	60	48
Day yard.....	50	51	59	46

¹ Also hostlers, 50 cents per hour.

CONCILIATION WORK OF THE DEPARTMENT OF LABOR, FEBRUARY 16,
1919, TO MARCH 15, 1919.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary exercised his good offices between February 16, 1919, and March 15, 1919, in 72 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, FEB. 16 TO MAR. 15, 1919.

Name.	Workmen affected.		Result.
	Directly.	Indi- rectly.	
Controversy, John Morrell Sons Packing Co., Ottumwa, Iowa.	45	.....	Adjusted.
Strike, State Barrel Co., Cleveland, Ohio.....	10	8	Do.
Threatened strike, building trades, New York..	25,000	100,000	Pending.
Threatened strike, Bethlehem Steel & Lebanon Valley, Lebanon, Pa.	1,200	3,700	Adjusted.
Strike, textile workers, 10 firms, Columbus, Ga..	9,225	1,500	Unable to adjust.
Controversy, blacksmiths, Ironmasters Association, Norfolk, Va.	70	2,000	Adjusted.
Controversy, Brotherhood of Painters, Decorators and Paperhangers of America: Gohagen Ship Yards, Averne, Long Island; Curtiss Aeroplane Co., Mineola, Long Island; L. W. F. Engineering Co., Long Island City, Long Island; Wright-Martin Aeroplane, Long Island City, Long Island; Lange Propeller Co., Whitestone, Long Island.	.....	600	It was decided there was no complaint, hence no case. If international approves, a new case will be prepared and submitted as suggested by commissioner.
Strike, Helvetia Milk Condensing Co., Wellsboro, Pa.	550	.....	Adjusted.
Controversy, textile situation, Passaic, N. J....	.....	.....	Pending.
Controversy, Spruce Cut Up Plant, War Department, Vancouver, Wash.	4	.....	Adjusted.
Strike, boilermakers and helpers, Standard Oil Co., Riverside plant, Louisville, Ky.	50	200	Do.
Threatened strike, electrical workers, Foundation Shipyard, Savannah, Ga.	20	3,600	Do.
Strike, silk operatives, Viscose Co., Roanoke, Va.	500	250	There is no grievance as to wages or hours. Three women state that the superintendent gave them four hours either to quit their organization or leave the employ of company. The general manager denies this and refuses to meet committee.

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STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION FEB. 16 TO MAR. 15, 1919—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, chain makers and others, Cleveland Chain & Manufacturing Co., Wapakoneta, Ohio.	110	65	Company positively declined mediation at this time. Claimed lack of orders and that resumption of operations would occur when the old employees returned under old conditions or when business warranted. At that time they would appreciate services of commissioner.
Strike, chain makers and others, Cleveland Chain and Manufacturing Co., Cleveland, Ohio.	50	.....	Same as above.
Threatened strike, Machinists' Union, Wheeler-Schebler Co., Indianapolis, Ind.	10	30	Adjusted.
Strike, machinists, Oakland Shipyards, Oakland, Calif.	.....	.....	Do.
Strike, boiler makers, Walsh Iron Works, Holyoke, Mass.	200	25	Pending.
Strike, blacksmiths, Cooper Iron Works, Jacksonville, Fla.	.....	.....	Do.
Controversy, West Virginia Pulp & Paper Co., Luke, Md.	1,200	.....	Company declines to meet committee.
Controversy, employees shoe industry, Greater New York, N. Y.	15,000	.....	Pending.
Controversy, Keystone Steel Co., Peoria, Ill.	6	350	Adjusted.
Strike, colored longshoremen, Key West, Fla. ....	.....	.....	There is nothing to be done, but it is believed that matter will automatically adjust itself.
Controversy, Atlantic Refinery Co., Brunswick, Ga.	.....	.....	Pending.
Strike, garment and auto workers, Chicago Rubber Clothing Co., Racine, Wis.	215	250	Do.
Controversy, carpenters, Michigan City, Ind.	70	300	Adjusted.
Controversy, blacksmiths, polishers, grinders, Evansville Tool Co., Evansville, Ind.	52	200	Do.
Controversy, Machinists' Union, Connersville, Ind.	.....	.....	Do.
Strike, cement workers, Lehigh Portland Cement Co., New Castle, Pa.	450	250	Do.
Threatened strike, carpenters versus contractors and Lumber Co.'s Association, East Liverpool, Ohio.	150	200	When request for commissioner was made it was not expected that so prompt a response would be made. As the carpenters have not yet made anticipated demand commissioner was asked to defer action until later date.
Strike, coppersmiths in 12 shops, Philadelphia, Pa.	78	.....	Pending.
Strike, United Shoe Workers, Ogden Shoe Co., Milwaukee, Wis.	150	.....	This company has Government contract and refuses to meet committee.
Controversy, laborers, Government warehouses, South Schenectady, N. Y.	400	.....	Laborers are not organized; have not objected to rate of pay. Matter was brought up in trades assembly and claim was made that low rate paid in warehouses tended to keep down rate in other employments.
Strike, textile workers, North Grosvenorsdale, Conn.	125	200	Pending.
Controversy, longshoremen coal trimmers, New Orleans, La.	.....	.....	Do.
Controversy, Dupont Chemical Co., Hopewell, Va.	.....	.....	Do.
Controversy, machinists, Marshall-McClintock Co., Pottstown, Pa.	50	2,500	Adjusted.
Strike, boilermakers, Downington Iron Works, Downington, Pa.	67	100	Do.
Strike, street car men and threatened sympathetic strike, Savannah, Ga.	150	.....	Pending.
Controversy, machinists, Hart-Parr Co., Charles City, Iowa.	35	1,000	Unable to adjust.
Controversy, iron and steel workers, Cambria Steel Co., Johnstown, Pa.	1,000	14,000	Company refused mediation.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR THROUGH ITS COMMISSIONERS OF CONCILIATION, FEB. 16 TO MAR. 15, 1919—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Treatment strike, metal trades workmen, Tonawanda, N. Y.	86	290	Pending.
Strike, metal trades workers, National Carbon Co., Niagara Falls, N. Y.	75	350	Do.
Controversy, retail clerks versus merchants, Coeur d'Alene, Idaho.	20	50	Adjusted.
Threatened strike, independent packing houses, St. Louis, Mo.	2,000	.....	Pending.
Strike, Highland Park Manufacturing Co., Charlotte, N. C.	.....	.....	Do.
Controversy, timber workers, Coeur d'Alene and St. Maries, Idaho.	74	270	Unable to adjust.
Strike, plumbers and steamfitters, Atlantic City, N. J.	79	.....	Pending.
Strike, Iten Cracker Co., Clinton, Iowa.....	160	30	Neither side will yield demands. Company would not accept arbitration.
Strike, Nashville Bridge Co., Nashville, Tenn.	72	150	Adjusted.
Controversy, union clerks, Snow-Palmer Co., Bloomington, Ill.	1	30	Do.
Controversy, Schoen & Jackson, Philadelphia, Pa.	.....	.....	Pending.
Threatened strike, ferries, railway marine equipment, New York, N. Y.	8,000	.....	Adjusted.
Controversy, carpenter versus superintendent of buildings, New York Central, Englewood, Ill.	1	.....	Do.
Threatened strike, linemen, City Light & Power Co., Fort Wayne, Ind.	20	50	Do.
Threatened strike, linemen, Fort Wayne & Northern Indiana Traction Co., Fort Wayne, Ind.	14	50	Do.
Controversy, boilermakers, Boston and vicinity, Mass.	.....	.....	Pending.
Strike, Helvetia Condensed Milk Co., Westfield and Osceola, Pa.	750	.....	Adjusted.
Threatened strike, oil field, gas well, and refinery workers, Coalinga, Calif.	.....	.....	Pending.
Controversy, bricklayers, masons, plasterers, Atlantic City, N. J.	233	350	Adjusted.
Controversy, longshoremen, Savannah, Ga.	.....	.....	Pending.
Lockout, harness and saddle makers versus firms, Nashville, Tenn.	.....	.....	Do.
Threatened strike, sheet metal workers, 14 firms, Atlantic City, N. J., and vicinity.	53	.....	Adjusted.
Strike, electrical workers, Atlantic City, N. J.	11	.....	Do.
Threatened strike, painters, Atlantic City, N. J.	154	.....	Do.
Controversy, Kilby Car & Foundry Co., Anns-ton, Ala.	.....	.....	Pending.
Threatened strike, Home Telephone & Telegraph Co., Fort Wayne, Ind.	12	200	Adjusted.
Controversy, Pensacola Marine Construction Co., Pensacola, Fla.	.....	.....	Pending.
Lockout, wooden-box makers, Pansom Co., Nashville, Tenn.	86	.....	Do.
Strike, bakers, Bozeman, Mont.	.....	.....	Do.
Controversy, negro workmen, steel plants, Coatesville, Pa.	.....	.....	Do.
Controversy, Central Iron & Coal Co., Holt, Ala.	.....	.....	Do.
Controversy, Semet-Solvay Co., Holt, Ala.	.....	.....	Do.

The following cases, noted as pending in the March statement, have been disposed of:

Lockout, Western Drop Forge Co., Marion, Ind.

Lockout, building trades, Kansas City, Mo.

Strike, foundry employees, 22 foundries, Brooklyn, N. Y.

Strike, journeymen painters, O. H. Guttridge Co., Atlantic City, N. J.

Controversy, National Match Co., Joliet, Ill.

- Controversy, Western Weighing Association, Chicago, Ill.
Controversy, machinists, molders, patternmakers, blacksmiths, Flory Manufacturing Co., Bangor, Pa.
Controversy, shipyards of northwest, Tacoma and Seattle, Wash.
Controversy, United Iron Works, Iola, Kans.
Strike, silk mills, Paterson, N. J.
Strike, Rose & Rose, Cleveland, Ohio.
Controversy, Midland Milling Co., Kansas City, Mo.
Walkout, shipyard employees, Foundation Shipyard, Savannah, Ga.
Controversy, Walnut Creek Flour Mill, Great Bend, Kans.
Strike, Wright Lathe Co., Chicago, Ill.
Controversy, Mundorf Chain Co., York, Pa.
Controversy, Sawmills, Orange, Tex.
Controversy, carmen and helpers, Sinclair Refining Co., Coffeyville, Kans.
Controversy, electrical workers versus electrical contractors, Atlanta, Ga.
Controversy, Southern California Box Co., Los Angeles, Calif.

IMMIGRATION.

IMMIGRATION IN JANUARY, 1919.

In January, 1918, the number of immigrant aliens admitted into the United States decreased 9 per cent as compared with the number admitted in December, 1917. February showed an increase over January of 16.2 per cent, while March as compared with February showed a decrease of 11.9 per cent. April as compared with March showed an increase of 46.7 per cent, May as compared with April an increase of 59.5 per cent, while June as compared with May decreased 6.4 per cent. July as compared with June showed a decrease of 45.4 per cent. In August there was an increase of 1.1 per cent over the number reported for July, and the number in September showed an increase of 27.2 per cent over the number for August. October compared with September showed an increase of 17.7 per cent and November compared with October showed a decrease of 27.8 per cent. In December the decrease from November was 26.5 per cent, and January, 1919, compared with December, 1918, shows a decrease of 8.3 per cent.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS
JANUARY, 1913, TO JANUARY, 1918.

Month.	1913	1914	1915	1916	1917	1918	1919	
							Number.	Per cent increase over preceding month.
January	46,441	44,708	15,481	17,293	24,745	6,356	9,852	18.3
February	59,156	46,873	13,873	24,710	19,238	7,388		
March	96,958	92,621	19,263	27,586	15,512	6,510		
April	136,371	119,885	24,532	30,560	20,523	9,541		
May	137,262	107,796	26,069	31,021	10,487	15,217		
June	176,261	71,728	22,598	30,764	11,095	14,247		
July	138,244	60,377	21,504	25,035	9,367	7,780		
August	126,180	37,706	21,949	29,975	10,047	7,862		
September	136,247	29,143	24,513	36,398	9,228	9,997		
October	134,440	30,416	25,450	37,056	9,284	11,771		
November	104,671	26,298	24,545	34,437	6,446	8,499		
December	95,387	20,944	18,901	30,902	6,987	10,748		

Decrease.

Classified by nationality, the number of immigrant aliens admitted into the United States during specified periods and in January, 1919, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN JANUARY, 1919, BY NATIONALITY.¹

Nationality.	Year ending June 30—				January, 1919.
	1915	1916	1917	1918	
African (black).....	5,660	4,576	7,971	5,706	209
Armenian.....	932	964	1,221	221	7
Bohemian and Moravian.....	1,651	642	327	74	23
Bulgarian, Serbian, Montenegrin.....	3,506	2,146	1,134	150	34
Chinese.....	2,469	2,239	1,843	1,576	109
Croatian and Slovenian.....	1,912	791	305	33	1
Cuban.....	3,402	3,442	3,428	1,179	40
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	2
Dutch and Flemish.....	6,675	6,443	5,393	2,200	167
East Indian.....	82	80	69	61	11
English.....	38,662	36,168	32,246	12,980	1,783
Finnish.....	3,472	5,649	5,900	1,867	94
French.....	12,636	19,518	24,405	6,840	1,082
German.....	20,729	11,555	9,682	1,992	144
Greek.....	15,187	26,792	25,919	2,002	66
Hebrew.....	26,497	15,108	17,342	3,672	312
Irish.....	23,503	20,636	17,462	4,657	594
Italian (north).....	10,660	4,905	3,796	1,074	110
Italian (south).....	46,557	33,909	35,154	5,234	150
Japanese.....	8,609	8,711	8,925	10,168	736
Korean.....	146	154	194	149	6
Lithuanian.....	2,638	599	479	135	7
Magyar.....	3,604	981	434	32	5
Mexican.....	10,993	17,198	16,438	17,602	2,067
Pacific Islander.....	6	5	10	17	.....
Polish.....	9,065	4,502	3,109	668	55
Portuguese.....	4,376	12,208	10,194	2,319	83
Roumanian.....	1,200	953	522	155	6
Russian.....	4,459	4,858	3,711	1,513	95
Ruthenian (Russniak).....	2,933	1,365	1,211	49	6
Scandinavian.....	24,263	19,172	19,596	8,741	559
Scotch.....	14,310	13,515	13,350	5,204	746
Slovak.....	2,069	577	244	35	6
Spanish.....	5,705	9,259	15,019	7,909	275
Spanish-American.....	1,667	1,881	2,587	2,231	153
Syrian.....	1,767	676	976	210	14
Turkish.....	273	216	454	24	.....
Welsh.....	1,390	983	793	278	52
West Indian (except Cuban).....	823	948	1,369	732	32
Other peoples.....	1,877	3,388	2,097	314	11
Total.....	326,700	298,826	295,403	110,618	9,852

¹ The total number of departures of emigrant aliens in January was 8,099.

PUBLICATIONS RELATING TO LABOR.

OFFICIAL—UNITED STATES.

ALASKA.—*Report of the Governor, 1918. Washington, 1918. 118 pp. Map. (Issued by the U. S. Department of the Interior.)*

In the section devoted to labor conditions the report states that "every industry in the Territory is suffering from a shortage of labor" and cites in detail the difficulties in regard to labor unrest occasioned by the undetermined application of a law passed by the Territorial legislature of 1917 providing for an eight-hour day and no more, with no provision for overtime.

CALIFORNIA.—*Industrial accident commission. Report, July 1, 1917, to June 30, 1918. Sacramento, 1919. 255 pp.*

This report was summarized in the MONTHLY LABOR REVIEW for March, 1919 (pp. 252 to 254).

— *State Commission of Immigration and Housing. Americanization; the California program. Prepared January, 1918, revised November, 1918. Sacramento, January, 1919. 19 pp.*

An outline of a working program of Americanization, presented by the commission as the result of its own successful pioneering efforts in this field, with the offer of its hearty service to any and all counties of the State.

— *State Commission of Immigration and Housing. Heroes of freedom. Sacramento, 1919. 48 pp.*

This pamphlet is intended especially for teachers, and offers to them the following aids in increasing the value of the schools to future citizens: "1, A suggested 'program' for the promotion of Americanization among school children through the study of heroes of the past, with a bibliography to assist in its use," and "2, 'The family tree of America,' showing that not only our people and our language, but our very soil have come to us from many sources, to make a new and composite nation."

MASSACHUSETTS.—*Bureau of Statistics. Labor legislation in Massachusetts in 1918. Boston, Oct. 1, 1918. 95 pp. Labor bulletin No. 125 (Being Part III of the Annual report on the Statistics of Labor for 1918).*

MONTANA.—*Department of Labor and Industry. Third biennial report, 1917-1918. Helena, 1918. 215 pp.*

States that "strikes and labor disturbances of an unusually severe nature seriously crippled Montana industries during the past two years," particularly the mining and lumber industries; details of many of these strikes are given in the report. Discusses general conditions in the lumber industry, noting that the companies now operate on an 8, 9, or 10 hour basis instead of working from "daylight till dark"; that no uniform system prevails among the different companies for the payment of employees; and that safeguards about dangerous machinery and the elimination of carelessness have materially reduced the number of accidents in recent years. A table of wages paid in the lumber industry in western Montana in July, 1918, is given. A chapter on cost of living presents tables showing wholesale and retail prices of articles of food on November 1, 1918, as compared with prices in 1900, 1910, 1914, and 1916. The report recommends legislation (1) that will insure prompt payment of wages due laborers who may be discharged or who voluntarily quit their employment; (2) that will prevent deductions from wages for road and poor taxes and hospital fees; and (3) that will protect workingmen against employment agency abuses by abolishing all employment offices conducted for profit. It is suggested that some of the provisions of the workmen's compensation law need to be made more flexible, others should be changed, and perhaps other new ones added.

NEVADA.—*Industrial Commission. Biennial report reviewing the administration of the Nevada Industrial Insurance Act for period July 1, 1916, to June 30, 1918, Carson City, 1919. 40 pp.*

This report is noted on pages 216 to 218 of this issue of the MONTHLY LABOR REVIEW.—*Labor Commission. Second biennial report, 1917-18. Carson City, 1919. 127 pp.*

Presents a directory of labor organizations in Nevada; statistical data as to wages and hours of labor in the various industries; tables showing the number of women employed, their average wages and average hours worked per day; a compilation of labor laws; a review of the work accomplished through mediation and conciliation, and an account of the work of the department in the enforcement of labor laws. The following table, compiled from data reported by 2,121 firms, shows the average daily wages, the average hours per day, and the average pay check for November, 1917, of all employees, and of female employees in the State, in 1917-18:

NUMBER OF EMPLOYEES, AVERAGE DAILY WAGES, AND AVERAGE HOURS OF LABOR IN NEVADA IN 1917-18, AND AVERAGE PAY FOR NOVEMBER, 1917, BY INDUSTRIES.

Industry.	All employees.				Females.			
	Number.	Average daily wages.	Average hours per day.	Average pay for November, 1917.	Number.	Average daily wages.	Average hours per day.	Average pay for November, 1917.
Farming and stock raising.....	4,486	\$2.04	9.9	\$51.89	269	\$1.46	10.0	\$35.82
Mines, mills, and quarries.....	11,358	4.59	8.0	114.56	113	2.40	8.0	59.53
Manufacturing.....	1,323	3.97	8.7	85.09	44	2.17	8.0	42.21
Railroads.....	5,148	3.52	9.5	89.60	89	2.26	8.0	59.91
Trades and merchandise.....	2,047	3.52	8.6	91.85	341	2.11	8.0	56.09
Public service.....	1,266	4.12	7.5	98.16	702	4.03	7.0	88.94
Professional service.....	75	3.22	8.1	89.57	57	2.59	7.0	69.40
Hotels, cafés, and saloons.....	861	2.58	9.0	66.80	292	1.27	8.0	39.60
Telegraph and telephone.....	326	2.63	8.0	61.38	130	2.07	7.3	45.68
Transfers and garages.....	364	3.83	9.0	105.20	13	2.39	7.7	50.89
All industries.....	27,254	3.73	8.7	93.31	2,050	2.59	7.8	62.02

NEW YORK.—*State Board of Charities. Division of mental defect and delinquency. Bureau of analysis and investigation. The causes of dependency, based on a survey of Oneida County. Albany, 1918. 465 pp. Eugenics and Social Welfare Bulletin No. XV.*

A singularly readable discussion of dependency in what is described as a typical up-State county of New York. The thesis of the report is that dependency is the result of a social reaction to environment due to individual peculiarities, and that therefore no general causes for dependency can be assigned, but that each case demands careful study in order that proper treatment may be prescribed.

Pauperism must for the future be a problem of diagnosis and discrimination. If every case applying for public or private relief were passed through a district clinic for mental hygiene a decision could be made as to intelligence, capacity, constitutional deviation, and acquired disease; and the medical, social, and economic future mapped out on the sure ground of thorough understanding. The case in question would then be sent to that institution or community welfare organization where the special needs of the handicapped individual could be met, treatment instituted as necessary, and a vocational program carried out. The wounded of the industrial world would thus be rejuvenated and assisted to help themselves.

This program is specially urged in the case of children, for whom it would be preventive rather than remedial. Every child who is mentally or physically retarded

in school work is a potential candidate for future dependency or, possibly, delinquency.

It should be the function of those in charge of the school classes containing retarded children to see that they receive such a diagnosis; that the mental defect or mental deviation or physical handicap is actually and adequately recognized. This done, the character, degree, and extent of the scholastic education best suited to the child's needs should be mapped out, and at the same time, through special tests, the type of vocational training best adapted to the main trends of that child's personality determined.

NEW YORK (CITY).—*Department of Health. Monthly Bulletin, November, 1918. Pp. 241-264.*

Contains an article on Health of workers in garages, which gives a brief account of the results of a study, made in May and June, 1918, of 43 garages, to determine the dangers to health, principally from fumes and gases, alleged by various labor organizations to exist in these places.

VERMONT.—*Commissioner of industries. Biennial report for the term ending June 30, 1918. Rutland, 1918. 17 pp.*

This report is noted on page 219 of this issue of the MONTHLY LABOR REVIEW.

UNITED STATES.—*Congress. House. Committee on labor. Hearings on H. R. 12634, a bill to encourage instruction in the hygiene of maternity and infancy, and to extend proper care for maternity and infancy; to provide for cooperation with the States in the promotion of such instruction and care in rural districts; to appropriate money and regulate its expenditure, and for other purposes. January 15 and 23, 1919. Washington, 1919. 60 pp.*

— *Senate. Committee on Education and Labor. Hearing on S. 5397, Emergency public works board. A bill to provide for the commencement or prosecution of public works in order to provide increased opportunities for employment during the period of demobilization and industrial readjustment, and for other purposes. Washington, 1919. 98 pp.*

— *Department of the Interior. Bureau of Education. Home education, by Ellen C. Lombard. Washington, 1919. 13 pp. Bulletin, 1919, No. 3.*

In these advance sheets from the biennial survey of education in the United States, 1916-1918, the author describes the educational work done by Federal, State, and local agencies in their efforts to conserve childhood and youth.

— *The educational system of South Dakota. Washington, 1918. 304 p. Bulletin, 1918, No. 31.*

This survey, which, at the request of the South Dakota Educational Survey Commission, was made under the direction of the United States Commissioner of Education, is a comprehensive study of the educational system of the State.

— *Vocational guidance and the public schools, by W. C. Ryan, jr. Washington, 1919, 151 pp. Bulletin, 1918, No. 24.*

This study carries out the idea suggested in its title. After discussing the field of vocational guidance, which includes a definition of the term and a statement of the relation of such guidance to general educational progress, an account of the development and growth of the movement is given. Statistics on school-leaving and employment demonstrate the need for vocational guidance, while an accumulation of material regarding occupations suggests to schools and teachers many lines along which their activities should be directed. Chapter VII is devoted to recent English experience with juvenile employment during the war and its significance for the United States. The bulletin closes with a comprehensive bibliography on the various phases of vocational guidance and two appendixes, one covering typical job analyses from the Richmond and the Minneapolis vocational education surveys; the other presenting a list of public high schools which report vocation bureaus or similar departments.

UNITED STATES.—*Department of Labor. Children's Bureau. An outline for a birth-registration test. Washington, 1919. 13 pp. Bureau publication No. 54, Miscellaneous series, No. 12.*

Prepared for the use of organizations desiring to conduct a house-to-house investigation of birth registration.

— *National War Labor Board. Organization and by-laws for collective bargaining committees. Instituted by the National War Labor Board for Bridgeport, Conn. [Washington, 1918]. 18 pp.*

This plan is submitted "as a means of developing a clearer understanding of the mutual problems appertaining to the company and its employees, which it is hoped to obtain by means of a free interchange of opinions and suggestions in the committee meetings on all matters of mutual concern and interest within the business."

— *Woman in Industry Service. Labor laws for women in industry in Indiana. Report of a survey as submitted to the governor of Indiana. Washington, 1919. 29 pp. Bulletin No. 2, December 31, 1918.*

This report is reviewed on pp. 188 to 190 of this issue of the MONTHLY LABOR REVIEW.

— *Federal Board for Vocational Education. Clothing for the family. Bulletin No. 23, December, 1918. Home Economics Series, No. 1. Washington, 1919. 116 pp. Illustrated. Bibliography.*

Outlines courses designed to solve the problems of how to purchase materials wisely and how to make and select garments which will be appropriate to the needs of the family for sanitary, attractive, and economic clothing.

— *Safety and fire protection engineering. Opportunity monograph, Vocational rehabilitation series, No. 6. Washington, January, 1919. 12 pp.*

— *Oxyacetylene welding. Opportunity monograph, Vocational rehabilitation series, No. 9. Washington, December, 1918. 14 pp.*

— *Concrete construction and cement manufacture: Engineer or architect; Inspector; Contractor; Superintendent; Foreman; Machine operators; Modelers; Pattern makers. Opportunity monograph, Vocational rehabilitation series, No. 13. Washington, January, 1919. 13 pp.*

— *Electrical employments with utility companies: Electric light and power companies; Electric railway companies; Telephone companies; Steam railroads. Opportunity monograph, Vocational rehabilitation series, No. 14. Washington, January, 1919. 19 pp.*

— *Electrical construction, maintenance, and repair occupations. Electrical contracting and repairing; Plant and factory electrical maintenance; Electrical inspection; Work in storage-battery service stations; Electrical automobile work. Opportunity monograph, Vocational rehabilitation series, No. 15. Washington, January, 1919. 16 pp.*

— *The law as a vocation. Opportunity monograph, Vocational rehabilitation series, No. 16. Washington, January, 1919. 11 pp.*

— *The training of teachers of vocational agriculture. Bulletin No. 27, Agricultural series, No. 5. Washington, January, 1919. 47 pp.*

Discusses the kind and extent of training needed by the teacher of vocational agriculture, the special facilities and conditions needed in order to carry on such training successfully, and the place of an effective agricultural teacher-training system in the scheme of vocational agricultural education contemplated and intended to be promoted by the Vocational Education Act.

— *Interstate Commerce Commission. Collisions, derailments, and other accidents resulting in injury to persons, equipment, or roadbed, arising from the operation of railways used in interstate commerce. October, November, and December, and year 1917. Accident bulletin No. 66. 82 pp. Collisions, etc., January, February, and March, 1918. Accident bulletin No. 67. 35 pp. Washington, 1919.*

Accident bulletin No. 66 is noted more fully on pages 198 and 199.

UNITED STATES.—*Shipping Board. Second annual report, 1918. Washington, 1918. 212 pp.*

A section of this report is devoted to the labor problems confronting the Shipping Board, and to a statement of the activities of the various agencies through which the board works in carrying out its labor program. These agencies include the Marine and Dock Industrial Relations Division; a department which has general supervision of labor questions pertaining to the operation of vessels and marine equipment; the Shipbuilding Labor Adjustment Board, an independent organization which acts as an adjustment agency in the field of construction; the National Adjustment Commission, a cooperating agency, representing also the War and Labor Departments, which serves the same purpose for longshoremen; and the New York Harbor Wage Adjustment Board, which has a similar function for the operators of harbor boats at New York. Work in the field of industrial relations, with special attention to the securing of labor, carried on by the Emergency Fleet Corporation, is also described briefly.

— *Shipping Board Emergency Fleet Corporation. Industrial Relations Division. Works committees and joint industrial councils. A report by A. B. Wolfe. Philadelphia, January, 1919. 254 pp.*

A discussion of both English and American experience in industrial relations under war-time conditions. Among other things the problems involved in the organization and functioning of works committees are dealt with in detail, the recommendations of the Whitley committee and the general movement toward joint industrial councils and works committees as agencies of so-called cooperative management are explained, the theory upon which the advocates of cooperative management or industrial representation base their program is set forth, and special attention is given to the psychological basis and the relation between industrial democracy and management responsibility.

— *War Department. Adjutant General. Committee on classification of personnel in the Army. Personnel work in the United States Army. Washington, January, 1919. 15 pp.*

Summarizes the work done by the Army to discover the trade ability of each soldier. States that in each 10,000 men 1,705 journeymen and 4,503 apprentices in classified occupations were found. The remaining 3,792 were unclassified.

— — — — *The right man in the right place in the Army. Washington [1919], 68 pp.*

Contains prints of all the charts and plates shown in the exhibit held in Washington, January 13 to 31, inclusive, to show how the Army finds out what men can do best and how it uses that ability; trade tests, demonstrated and illustrated by photographs and models; how Army units are "balanced"; how officers' ratings are summarized and used; and the results of Army personnel work in the present war. Figures are given showing the number of technical and skilled workers needed by each combat division.

— — — — *Trade specifications and index of professions and trades in the Army. Second edition. Washington, 1918. 239 pp. War Department document No. 774.*

The purpose of this manual is to standardize vocational terminology in the Army and to define the duties of specialists and skilled tradesmen required by its various technical organizations. Each definition states the duties to be performed, the qualifications of a well-trained, high-grade man or all-round journeyman who can do this work, and the nearest equivalent or substitute occupations to be drawn upon as a source of supply, if necessary.

OFFICIAL—FOREIGN COUNTRIES.

AUSTRALIA (NEW SOUTH WALES).—*Bureau of Statistics. Official yearbook, 1917. Sydney, 1918. 843 pp. Price, 2s. 6d.*

Of interest to labor are chapters giving statistics on the mining industry, food and prices, employment and industrial arbitration, manufacturing, agriculture, and dairying. The report states that the wages of coal miners, who are paid varying rates according to the selling price of coal per ton and the conditions of the seams or places where the coal is mined, ranged from 3s. 5.4d. to 5s. 2.1d. (83.9 cents to \$1.26) per ton in the northern district, and were 2s. 9.4d. (67.8 cents) per ton in the southern district. During 1917 the number of men employed in mines was 32,817, an increase of 1,513 compared with 1916. During 1916 there were 34 fatal and 86 serious injuries in mining. A total of 292,983 persons—237,819 males and 55,164 females—were employed in all industries during the year ending June 30, 1917 (except for mining, which figures relate to the year ending December 31, 1917). Of this number, 117,997 were engaged in manufacturing and 142,169 in agricultural pursuits. A section on child labor shows that 5,053 children under 16 years of age—2,604 males and 2,449 females—were employed in manufacturing in 1916-17, a decrease of 130 compared with 1915-16. Women to the number of 26,638 were employed in manufactories in 1916-17, an increase of 566 over 1915-16. Of the 289 industrial disputes during 1917, 262 were brought to a conclusion by the defeat of one of the parties or by means of a truce, 22 were settled by arbitration, and 5 were ended by replacement. In these strikes, 144,704 workers were involved and 2,861,595 working days were lost. Eighty-five strikes were over the question of wages, 61 over working conditions, and 66 over employment of persons or classes of persons.

Under the operation of the Workmen's Compensation Act, £12,431 (\$60,495.46) was paid in respect of 52 deaths; £10,036 (\$48,840.19) in respect of 123 cases of non-fatal accidents; and £29,635 (\$144,218.73) in respect of 5,154 cases of disablement—a total of £52,102 (\$253,554.38).

CANADA (QUEBEC).—*Minister of Colonization, Mines, and Fisheries. General report for the year ending June 30, 1918. Quebec, 1918. 175 pp.*

The report is in seven parts. Part I, which forms the bulk of each report, is devoted to colonization and gives a detailed statement of work done on colonization roads during each of the two years covered. Part II gives reports of colonization societies and agencies; Part III contains statistics of immigration; Part IV is the report of the Bureau of Mines; Part V, the report on fisheries and game; Part VI, the report of the cadastral branch; and Part VII, the accountant's report.

— *Minister of Public Works and Labor. Report for the year ending 30th June, 1918. Quebec, 1918. 185 pp. Illustrated. Tables.*

Includes specific reports from inspectors concerning industrial accidents, child labor, factory inspection, etc., and from provincial employment bureaus; also statistics relating to the application of the act respecting labor disputes in Quebec, showing their causes and the results of the disputes since the enforcement of the act in March, 1901; and other matter relating to labor.

— *Provincial Secretary's Department. Bureau of Statistics. Statistical yearbook, 5th year. Quebec, 1918. 565 pp.*

FRANCE.—*Département de la Seine. Préfecture de Police. Protection des enfants du premier âge. Rapport annuel, année 1916. Melun, 1917. 70 pp.*

Annual report for 1916 concerning the protection of infants, including medical inspection, statistics of cases receiving care, morbidity, and mortality; statistics of day nurseries; and other matter.

FRANCE.—*Ministère de l'Agriculture et du Ravitaillement. Recueil des lois, décrets, arrêtés, circulaires, rapports, documents intéressant le ravitaillement de la France. Vol. 3 (Apr. 1 to Sept. 1, 1918). Paris, 1918. 483 pp. Price, 10 francs net.*

As indicated by the title this volume is a compilation of laws, decrees, and other official documents relative to food and other supplies, maximum prices, food restrictions, exportation, etc.

GREAT BRITAIN.—*Home Office. Messrooms and canteens at small factories and workshops. London, 1918. 9 pp. Illustrated. Price, 3d. net.*

The Home Office is empowered, under the Police, Factories, etc. (Miscellaneous Provisions) Act, to require the provision of messrooms and canteens for industrial workers in cases where such provision seems necessary for securing the welfare of the workers. The provision of canteens at the larger works was dealt with in a pamphlet entitled "Feeding the munition worker" issued by the canteen committee of the central control board (liquor traffic), which was noted in the January, 1917, issue of the MONTHLY REVIEW, page 168; and in the final report of the health of munitions workers committee, summarized in the MONTHLY LABOR REVIEW of September, 1918, pages 40 to 53. This present pamphlet is designed to assist occupiers of comparatively small works in providing their workers with suitable accommodations and facilities for taking their meals. It considers the matters of numbers to be provided for, situation, design, messroom and kitchen, lavatories, and cloakrooms, management and maintenance, and attendants.

— *Ministry of Labor. Reports upon openings in industry suitable for disabled sailors and soldiers. No. 17. Engineering. Part 2. 1918. 22 pp. No. 18. Picture-frame making. 1918. 6 pp. No. 19. The brush-making trade. September, 1918. 9 pp. No. 20. Electricity, power and light: generation, distribution, installation, and maintenance. 1918. 11 pp. No. 21. Distributive trades. 1918. 12 pp. No. 22. Lettering. 1918. 14 pp.*

Issued in collaboration with the Ministry of Pensions. For list of numbers 1 to 16 see MONTHLY LABOR REVIEW for August, 1918 (p. 111).

— *Ministry of Reconstruction. Advisory council. Report . . . on the employment on the land of returned sailors and soldiers, together with a report by Mr. R. V. Lennard. London, 1919. 39 pp. Price, 1s. net.*

The report considers briefly means of ascertaining in what numbers returning sailors and soldiers desire or are willing to settle on the land and the methods of disseminating information as to agricultural prospects. Following this introduction related subjects, as Housing, The acquisition of land, Small holdings, Training, Wages and employment, The case of disabled men, Trade organization, Village life, and others, are discussed in greater detail. Three appendixes contain: A summary of recommendations; Form proposed by the Board of Agriculture for circulation with covering letter to soldiers working on farms in the country; and a Memorandum on housing policy.

— *Engineering trades (new industries) committee. Report. London, 1918. 39 pp. Cd. 9226. Price, 6d. net.*

— *Final report of the civil war workers' committee. Substitute labor. London, 1918. 8 pp. Cd. 9228. Price, 1d. net.*

This report relates to women in clerical and commercial occupations, with separate consideration given to temporary clerks employed in Government departments. The Board of Trade employment returns for April, 1918, show an increase of 878,000 in the number of women employed in all industries since July, 1914. The committee considers that the "whole question of the future position of women in clerical and commercial occupations, not only in London but in the Provinces, is one of great importance and difficulty." As aids in civil demobilization the committee recommends that a committee be appointed to work in connection with the labor resettlement committee to consider the general conditions of women's employment in these occupations, that the employment exchange now working with the Civil Service Commission shall as-

sist in the work of demobilization, and that a complete register of temporary Government clerks shall be kept. Advisory committees to work with employment exchanges are recommended for both Government and other clerical workers. Arrangements for intensive courses of professional training in special circumstances are also advocated. It is recommended that vacancies both in the permanent and temporary rolls shall as far as possible be filled by displaced temporary clerks and men discharged from the forces, and that notice of dismissal shall not be less than a month. The committee advises that the question of the future employment of women on railways be settled at once by the railway companies and the trade-unions.

GREAT BRITAIN.—*Ministry of Reconstruction. Machinery of Government committee. Report. London, 1918. 80 pp. Cd. 9230. Price, 6d. net.*

This report is reviewed on pages 78 to 82 of the present issue of the MONTHLY LABOR REVIEW.

— — — *Reconstruction problems 10. Labor conditions and adult education. London, 1919. 20 pp.*

This pamphlet is a summary of the report of the adult education committee of the Ministry of Reconstruction, which was noted in the MONTHLY LABOR REVIEW for November, 1918 (pp. 63-70).

— — — *Reconstruction problems 11. Commercial forestry. London, 1919. 16 pp. Price, 2d. net.*

An endeavor to present in outline a concrete example of an afforestation scheme deemed suitable to the conditions of Great Britain and Ireland. The subject is treated under the heads of The position before the war; The position in 1918; Commercial forestry; The renovation and extension of forest areas; The acquisition or control of land; The extent of the land to be controlled; Distribution of forest areas; Classification of areas by methods of control; The rate of afforestation; The finance of the scheme; Some notes on employment; and Other important factors in a forestry scheme.

— — — *Reconstruction problems 12. The resettlement of officers. 1. Army and R. A. F. London, 1919. 28 pp. Price, 2d. net.*

This pamphlet considers the problem of the resettlement of the national brain power, which has, during the past few years, been concentrated almost entirely on the business of war. The term "officer" is applied in this larger sense to men in the commissioned ranks of the army and air force and even in civil life, as well as to those who are officers in the purely technical military sense. The problem is to find the most suitable employment for some 400,000 men of the officer type, who represent the best brain power of the nation between the ages of 18 and 45 years approximately. Besides those men who will need no assistance, five classes are considered: Those who, when they entered the service, had not entered upon or commenced training for any career; those whose training was interrupted; those who have been disabled by injuries or sickness from returning to their former occupations; those who, by reason of a change in their attitude of mind consequent upon their service in the forces, are unwilling to resume their former occupations; and those selected from the ranks of the old army who will choose to retire on the special terms applicable to them. The scheme includes education, State help, service gratuities, special grants, disability compensation, training of the disabled, and other arrangements.

— — — *Report on the work of the ministry for the period ending 31st December, 1918. London, 1919. 46 pp. Cd. 9231. Price, 6d. net.*

An introductory chapter outlines the constitution and organization of the work of the ministry, and separate chapters deal with the work of the different branches. That devoted to work undertaken by the labor and industrial branch covers Demobilization of the forces, Civil resettlement, and Permanent policy. Chapters on the work of the rural development branch and the social development branch—the main business of the latter having been associated with the proposals for the establishment of a ministry of health—are also of particular interest to labor.

GREAT BRITAIN.—*Ministry of Reconstruction. Women's Advisory Committee. Interim report of the subcommittee on the coordination of the vocational training of women. London, 1918. 8 pp. Price, 3d. net.*

A digest of this report is given on pages 89 to 91 of this issue of the MONTHLY LABOR REVIEW.

INDIA.—*Bureau of Education. The education of factory children in India. Calcutta, 1918. 26 pp. Illustrated. Pamphlet No. 2. Price, 6 annas or 7d.*

Describes the work done by certain schools of India maintained by the owners of factories, tea gardens, and collieries, in providing for the education of the children actually employed as well as of the children of employees. In a preface it is stated that the difficulties in the way of the education of factory children are indifference, opposition of parents who do not wish their children to feel themselves above manual toil, the objection of managers to anything which may tend to remove labor, and the fact that elementary education is not compulsory. A calculation made for certain provinces in 1913 showed that 17 per cent of the children employed were actually at school.

MEXICO.—*Secretaria de Industria, Comercio y Trabajo. Ley sobre pesas y medidas de 6 de Junio de 1905. Reglamento de la misma ley. Decreto de 1 de Julio de 1918. Mexico (city), 1918. 142 pp. Charts.*

This is a compilation of the laws of Mexico relative to standardization of weights and measures. The bureau of standards (*oficina verificadora*) is established in the department of public works, and subsidiary offices are authorized in cities and municipalities of commercial importance, to test instruments of weights and measures. In places of lesser importance the authority to make tests is delegated to the municipal authorities.

SPAIN.—*Consejo Superior de Emigración. El problema de la emigración. Madrid, 1918. pp. 305-408. Boletín no. 95.*

This volume consists of a number of studies prepared by various officials of the Spanish Emigration Office, and other public officials. Among the subjects discussed are: Repatriation; emigration since the war; labor conditions in Brazil; manual labor in France; and the problem of after-the-war emigration.

— — *Instalación y asistencia de los emigrantes á Bordo. Madrid, 1918. pp. 499-537. Boletín no. 97.*

In presenting this report the inspector of emigration says: "This presentation of the various aspects relative to emigration is a frank expression of the necessities and requirements of emigrants during their voyage, namely: Location, capacity, access, ventilation, cleanliness and lighting of berths; character, dimensions and furnishings of mattresses; size and location of decks, and freedom to utilize them; supply of drinking water, quality of bread, meals, regulations applying to emigrants, and price of passage.

— — *Nuestra emigración por los puertos españoles en 1917. Características y Modalidades del Éxodo. Madrid, 1918. pp. 411-496. Boletín no. 96.*

This report presents statistics of Spanish emigration from the various ports during the year 1917. During the year 43,051 Spanish citizens emigrated. Of this number 28,251 left for Cuba, 3,772 for the United States, and 11,028 for Mexico, Porto Rico, and Central and South American countries, of whom 8,677 left for Argentina. The total number of immigrants was 37,701. Of these 13,410 returned from Cuba, 1,497 from the United States, and the others from Mexico, Porto Rico, and Central and South American countries, of whom 19,320 were from Argentina.

SWEDEN.—*Socialstyrelsen. Levnadskostnaderna i Sverige 1913-1914; Del II: Lokalmonografier, 7. Uppsala, av K. Socialstyrelsen. Stockholm, 1918. 92 pp.*

Forms part 7 of a general investigation of the cost of living in Sweden in 1913-14. This particular monograph is the result of the investigation in the city of Upsala.

UNOFFICIAL.

AMERICAN FEDERATION OF LABOR. *Alabama branch. Official yearbook and buyer's guide. Proceedings, seventeenth annual convention, Tuscaloosa, Ala., May 20 to 22, 1918. Birmingham, 1918. 92 pp.*

— *Georgia branch. Annual official proceedings, twentieth annual convention, Augusta, Ga., April 17 to 20, 1918. Atlanta, 1918. 48 pp.*

AMERICAN GLASS TRADE DIRECTORY. *Vest-pocket edition. Revised and complete list of glass factories in the United States and Canada, also supplementary list of cut-glass companies. Pittsburgh, Commoner Publishing Co., 1919. 90 pp. Price, \$2.*

AMERICAN LABOR PARTY OF GREATER NEW YORK. *Platform and plan of organization, adopted at conference of trade-unions held in New York, January 11, 12, 1919. New York, 32 Union Square, 1919. 15 pp.*

The American Labor Party is the result of a meeting of 884 delegates representing organized labor in New York City, held on January 11 and 12, 1919. This pamphlet contains the "tentative" platform of this new party and the plan of organization. The declaration of principles covers (1) Restoration of free speech, free press, and free assemblage; (2) Public works to prevent unemployment; (3) The universal enforcement of the American standard of living; (4) Public ownership of public utilities; (5) Encouragement of agriculture and reduction of the cost of living; (6) Democratic control of industry and commerce; (7) Democratic control of education; (8) Measures to secure freedom and equality; (9) War referendum and military training; (10) Taxation to finance increased governmental activities; (11) World peace and international league of workers.

AMERICAN TELEPHONE AND TELEGRAPH COMPANY. *Annual report of the directors to the stockholders for the year ending December 31, 1918. New York, 1919. 60 pp. Diagrams.*

A section devoted to the subject of employees' benefit funds, the plan for which has been in operation for six years, states that the entire cost of the plan up to and including July 31, 1918, was paid by the companies, and that the cost during the period of Federal control is paid by the Postmaster General, except in respect of certain corporate employees. There were 367 former employees on the pension rolls on December 31, 1918, a net increase of 53 during the year. The average pension paid was \$42 per month. There were 33,156 cases of sickness among employees eligible to benefits during 1918, an increase of 13,726 over the previous year. The aggregate sickness benefits paid during the year were \$1,799,794, and the average period of disability for cases completed was 33 days. Industrial accidents during the year totaled 8,174, a decrease of 2,558 compared with 1917; and the total benefit payments on account of accidental injuries were \$525,126, including \$125,905 for medical attendance, etc. Excluding accident cases included above, \$399,647 was paid in death benefits to dependent relatives of 391 employees who had been in the service for five years or more; and \$24,229 was paid for burial expenses for 120 employees leaving no dependents.

ANDREWS, JOHN B. *Labor in the peace treaty. New York, American Association for Labor Legislation, 131 East Twenty-third Street, 1919. 12 pp.*

Proposals for international labor legislation from the United States point of view for consideration at the Paris peace conference are given in this pamphlet.

ARMOUR, J. OGDEN. *In the matter of the investigation of the packing industry. Testimony of J. Ogden Armour on behalf of Armour & Co., January 21, 1919, before the Committee on Interstate and Foreign Commerce, in the House of Representatives. Washington, 1919. 64 pp.*

This testimony was given at the hearing on the bill (H. R. 13324) which provides for the acquisition and ownership, or the regulation, control, and operation by the United States, of stockyards, exchange buildings, rendering plants, serum plants, market newspapers, refrigerator cars, cattle cars, cold-storage houses, branch market

houses and all their several adjuncts, appurtenances and facilities, and the licensing by the Government of the meat-packing industry.

BOREA, DOMINGO.—*La mutualidad y el cooperativismo en la República Argentina.* Buenos Aires, Taileres Gráficos de L. J. Rosso y Cía, 1917. 271 pp.

A digest of this volume appears on pages 117 to 120 of this issue of the REVIEW.

BUREAU OF INDUSTRIAL RESEARCH. *How the Government handled its labor problems during the war. Handbook of the organizations associated with the National Labor Administration.* [New York, 465 West Twenty-third Street], 1919. 48 pp. Price, 25 cents.

BUREAU OF RAILWAY NEWS AND STATISTICS. *Railway statistics of the United States of America for the year ended December 31, 1917, compared with the official reports for 1916 and recent statistics of foreign railways.* Prepared by Slason Thompson. Vol. 15. Chicago [1918]. 128 pp.

Statistics showing the effect of the Adamson Act and tables giving a summary of the operating revenues and expenses of the railways of the country for each year ending June 30, from 1908 to 1918, are presented. One chapter of particular interest to labor is on employees and compensation. The report also includes statistics of foreign railways.

CAMUS, JEAN. *Physical and occupational reeducation of the maimed.* Authorized translation by W. F. Castle, with articles on British institutions by Sir Arthur Pearson, Margaret Sale, and Dudley B. Myers. London, Baillière, Tindall and Cox, 1918. 195 pp. Illustrated.

A complete account of the work of reeducation of the wounded as given by French authorities on the subject.

COMMISSION DES TRAITÉS INTERNATIONAUX DE TRAVAIL. *Rapport de M. Ernest Laroche sur la réciprocité des lois de prévoyance entre la France et les Nations Alliées.* Paris, 1918. 26 pp.

After a brief review and comparison of social insurance measures in various European countries, the report closes with a resolution—unanimously adopted—proposing an early agreement between France and her allies, whereby the benefit of their respective social insurance laws, including sickness risks, old-age and invalidity pensions, and unemployment donations, shall be extended to the peoples of those countries.

COMPAGNIE DU CHEMIN DE FER DE PARIS A ORLEANS. *Notice sur les institutions fondées par la Compagnie en faveur de son personnel.* Paris, 1916. 47 pp.

This pamphlet, issued by the Paris-Orleans Railroad, is an account of its efforts in behalf of better economic conditions for its employees. The first scheme adopted was in 1844, and was a plan for the direct distribution among its employees of net earnings over a definite amount. This scheme has been modified on various dates, so as to provide for retirement with annuities.

CONFEDERATION GÉNÉRALE DU TRAVAIL. *Questions ouvrières.* 1. *La main-d'oeuvre étrangère;* 2. *Les clauses ouvrières à insérer dans le traité de paix;* 3. *La situation ouvrière, améliorations à obtenir;* 4. *La question des loyers.* Paris, 33, Rue de la Grange-aux-Belles, 1916. 36 pp.

Pamphlet address by the French General Confederation of Labor to organized labor, considering, in the light of conclusions reached by the Leeds Labor Conference, 1916, the following subjects: Alien labor; the labor clause to be inserted in the treaty of peace; the labor situation—improvements to be obtained; and the question of rents.

— *Une attitude—Un programme, Quelques mots d'Introduction.* 3^e édition. Paris (X^e), 33, Rue de la Grange-aux-Belles. [1918.] 16 pp.

This pamphlet by the French General Confederation of Labor, entitled "An attitude: a program: some introductory words," contains, besides the introduction, an address by Jouhaux, before the monthly meeting of the Federation of French Manufacturers and Merchants, regarding the labor problem.

ELBOURNE, EDWARD T. *Factory administration and accounts: A book of reference, with tables and specimen forms, for managers, engineers, and accountants. With contributions on the general problem of industrial works design by Andrew Home-Morton, and on financial accounts by John Maughfling.* London, The Library Press (Ltd.), 1918. 638 pp.

Aims to present an analytical study of the problems pertaining to factory administration and accounts as a whole, in such a way as to be understandable alike by the business man, the accountant, and the engineer. The book is divided into 6 sections, the arrangement being based on the sequence of the actual workings of a factory as far as practicable. Section I discusses the problem of industrial works or factory design in a general way; Section II deals with general administration; Section III comprises a study and discussion of the common elements of works administration; Section IV is devoted to works accounts in considerable detail, with a view to providing a comprehensive grasp of the whole subject; Section V consists of a comprehensive set of routine forms which broadly embody the principles outlined in the preceding sections, the forms being grouped according to the departments first concerned with their use; and Section VI gives a definite set of financial accounts adapted, on the one hand, to the system of works accounts advocated in Section IV and, on the other hand, conforming with the requirements of sound accountancy and English company law. This volume is the third edition of the work, the first having been published a few months prior to the outbreak of the war.

FEDERATION OF BRITISH INDUSTRIES. *Report and resolutions of the second annual general meeting, held October 30 and 31, 1918.* London, 1918. 30 pp.

The resolutions debated and passed at this meeting cover a variety of subjects, including Relations between employer and employed; Whitley Report; Labor report; Education; Housing; Reconstruction; National economic policy; and others. A brief review of the Federation of British Industries was printed in the MONTHLY LABOR REVIEW, October, 1918, pp. 44-47.

FINDLAY, J. J., EDITOR. *The young wage earner and the problem of his education. Essays and reports edited by J. J. Findlay, with the committee of the Uplands Association.* London, Sedgwick & Jackson (Ltd.), 1918. 211 pp.

A collection of essays and reports on the subject of the continued education of wage earners between the ages of 14 and 18 years, intended for the use of teachers and of the general public interested in educational reform. The volume includes passages from the Education Bill, 1918; a chapter on The part-time education of wage earners—statement drafted by the committee of the Uplands Association; essays entitled From home life to industrial life: with special reference to the adolescent girl; The new scholar; The passage from elementary to continuation school; The young factory girl; and Principles of organization; reports on A part-time day school for young employees (Birmingham); A commercial school in a store; Juvenile employment and after care (Bradford); Working girls and trade schools (London); The part-time education of clerks (Manchester); Work schools for engineers (Manchester); The churches and the young adolescent; and The sons and daughters of farming folk; and an appendix containing three notes on the psychology of adolescence.

FOLWELL, WILLIAM WATTS. *Economic addresses.* Minneapolis, July, 1918. 99 pp. Price, 50 cents. *Bulletin of the University of Minnesota. Current problems No. 9.*

Contains five addresses: The ethics of business, prepared for and used as one of a series of lectures offered by the university extension department of the University of Chicago in 1905; Trusts, first read before the Minneapolis Board of Trade in 1900; The single tax, delivered in 1899 in reply to an address on the subject by Henry George; Socialism true and false; and The new economics, delivered as the opening address at the annual meeting of the American Economic Association at Chautauqua, N. Y., in 1892.

FRANKEL, LEE K. *The future of the American Public Health Association.* 1919. 11 pp. Reprinted from *American Journal of Public Health*, vol. 9, No. 2, February, 1919, pp. 87-97.

Address of the president of the American Public Health Association before the general sessions of the association at Chicago, December 10, 1918. After emphasizing the attitude of relative indifference which has prevailed in regard to public health and particularly toward preventive hygiene, the author makes a strong plea for more effective work to be undertaken by the association than formerly, saying, "If the association is to function in the way it should, it will not be sufficient for it merely to hold annual meetings and to appoint interim committees for study and research. We must become a propagandist body, working day in and day out through properly constituted machinery and officials to carry the doctrine of preventive medicine into every city and town."

GOMPERS, SAMUEL. *American labor and the war.* New York, George H. Doran Co., 1919. 377 pp.

A collection of the principal addresses delivered by Mr. Gompers during the period of the war, including the address in the Chicago Auditorium upon his return from his tour of the allied nations as chairman of an American Federation of Labor mission. To this is added as Part II, under the heading of "Labor's official war record," the text of the principal official documents which the federation has produced since the beginning of the war in 1914.

HELEN S. TROUNSTINE FOUNDATION. *The newsboys of Cincinnati*, by Maurice B. Hecter. January 15, 1919. Cincinnati. pp. 113-177. *Studies*, Vol. I, No. 4.

The principal recommendation made as a result of this study is that "the crippled veterans from our armies in France and Italy should be given a monopoly of the newspaper selling business, and boys under 16 should be eliminated entirely from such work." The objection raised to eliminating small boys from newspaper selling is that they are the chief support of widowed mothers, but the investigation showed that only one newsboy in seven was the child of a widowed mother, and that only 4 per cent came from families in which the income, exclusive of that supplied by the newsboy, is insufficient to provide the family with a minimum normal standard of living. It was found that economic necessity is a very small factor in impelling boys to sell papers. One of the most urgent reasons, according to this report, for eliminating young boys from newspaper selling is the evidence that this occupation produces a shocking amount of delinquency. It is recommended that an ordinance be passed forbidding the employment of any boy under 16 years of age at this work.

HERDING, F. J. *Workingmen's colony, East Youngstown, Ohio.* New York, 1918. 16 pp. *Illustrations. Plans.*

This pamphlet is a reprint of an article published in the *American Architect* for October 2, 1918, pages 383-398. It gives a description of a concrete housing group erected at East Youngstown, Ohio, for the employees of the Youngstown Sheet & Tube Co. The description is by a member of the firm which erected the houses.

HOVELL, MARK. *The chartist movement. Edited and completed, with a memoir*, by Prof. T. F. Tout. New York, Longmans, Green & Co., 1918. 327 pp.

A very complete history of the Chartist movement which occupied so large a space in English public affairs during the 10 years 1838 to 1848, and whose immediate object was political reform and whose ultimate purpose was social regeneration. The author traces the outgrowth of the movement from capitalistic control of domestic industry—which he states was general by the eighteenth century—through its decline and its last stages in the period from 1849 to 1858, and analyzes the relation of the movement to, and influence upon, socialism in particular and later ideals regarding conditions of the industrial classes in general. In the section entitled "The place of Chartism in history," he says "The Chartists first compelled attention to the hard-

ness of the workmen's lot, and forced thoughtful minds to appreciate the deep gulf between the two 'nations' which lived side by side without knowledge of or care for each other. Though remedy came slowly and imperfectly, and was seldom directly from Chartist hands, there was always the Chartist impulse behind the first timid steps towards social and economic betterment. The cry of the Chartists did much to force public opinion to adopt the policy of factory legislation in the teeth of the opposition of the manufacturing interests. It compelled the administrative mitigation of the harshness of the new poor law. It swelled both the demand and the necessity for popular education. It prevented the unqualified victory of the economic gospel of the Cobdenites, and of the political gospel of the utilitarians."

INDIANA UNIVERSITY. *Extension division. Vocational recreation in Indiana, 1916, by Lebert H. Weir. Bloomington, January, 1918. 126 pp. Bulletin, Vol. III, No. 5.*

A report upon the vocational recreation activities of 141 Indiana establishments investigated by the author. Part II of the bulletin gives information designed to assist managers who desire to undertake seriously the establishment of recreational facilities in shops, factories, and commercial establishments.

INDUSTRIAL PEACE. *Vol. I, September, 1917, to February, 1918; Vol. II, March, 1918, to August, 1918. London, The St. Catharine Press [1918]. 2 vols.*

A monthly periodical, the object of which is to contribute toward the maintenance of industrial peace. The belief is expressed, in the foreword, that "the spread of syndicalism and the fomenting of class antagonism is harmful to labor as well as to capital. We are convinced that the common national interest can best be served by the establishment of some form of cooperation between labor, management, and finance, which will enable this country to maintain her position as a great power, whilst securing a decent and prosperous standard of living to the workers, who, we strongly hold, have an inherent right to be safeguarded against all preventable poverty, unemployment, and exploitation. * * * We shall not, however, confine ourselves to criticism of the objects and methods of our opponents, but shall lose no opportunity of bringing to the notice of our readers any constructive measures or palliatives that appear to offer a practical solution of the difficulties that confront us. In this connection we shall welcome any suggestions that may be brought to our notice." The 12 issues included in the 2 volumes contain unsigned articles on various industrial questions, among which is an article running through eight numbers on The rank and file movement, and brief articles on The control of industry, Conscience of wealth, National Alliance of Employers and Employed, Works committees and industrial councils, The industrial balance of power, British socialist party, The independent labor party, Profit-sharing, Payment by results, Man power and dilution, Cataclysm versus growth, The Socialist Labor party, National guilds, Welfare work, Pastoral functions of management, The industrial league, The national labor and democratic party, The meaning of syndicalism, and Trade after the war. A department under the heading "Food for thought" gives short items relating to publications and matters of current interest.

INDUSTRIAL RECONSTRUCTION COUNCIL. *Annual report, 1918. London, 1918, 12 pp.*

The report includes a list of the industries in which various kinds of industrial councils have been set up; public meetings held; lectures delivered; propaganda through other bodies; literature published by the Industrial Reconstruction Council; and a bibliography of works useful to those studying reconstruction.

KATAYAMA, SEN. *The labor movement in Japan. Chicago, Charles H. Kerr & Co., Cooperative, 1918. 147 pp.*

An attempt, which the author in his preface states to be the first, to give to the English-speaking public a history of the labor and socialist movement in Japan.

The modern labor movement in Japan is outlined in its activities and purposes from its beginning in 1897 after the war with China, emphasis being laid upon the socialistic aspects of the movement, creating the impression that the author regards the labor movement and the socialist movements as identical. The book was originally prepared for the Internationalist Socialist Review during 1917.

LEAKE, ALBERT H. *The vocational education of girls and women.* New York, The MacMillan Co., 1918. 430 pp. Illustrated. Bibliography.

The training of girls presents a double problem. It should cover preparation for industry as well as for homemaking in order that girls may be able to support themselves outside the home if need be. The author reviews household arts, instruction in elementary schools, in high schools, and in the home, giving obstacles to such training, methods for overcoming opposition, and courses and other means offered in various places to secure such training. He makes the practical suggestion that the high school, in addition to preparing 10 per cent of its pupils for college, should give definite vocational training to the 90 per cent who never go educationally beyond its walls, and indorses a State program for education of this character. After a general consideration of women in industry the author takes up in more or less detail types of schools in which efforts are being made to give girls who, upon leaving the elementary schools, must go to work immediately, some adequate preparation for industrial life. He thinks, however, that vocational guidance should not restrict education to particular classes of work, but, on the contrary, should be broad enough in its scope to assist every girl both to earn a living and to perform the greatest possible service to society.

LEVERHULME, LORD. *The six-hour day and other industrial questions.* London, G. Allen & Unwin (Ltd.), 1918. 328 pp.

A review of this book appears on pages 168-173.

LÓPEZ VALENCIA, FEDERICO. *Instituciones Patronales de Previsión en los Estados Unidos.* Madrid, 1918. Pp. 189-292. Junta para ampliación de estudios é investigaciones científicas. Anales: tomo xvi, memoria 5.

This volume is a study of industrial betterment, welfare work, and service for employees instituted by employers in the United States.

MACKAYE, JAMES. *Americanized socialism: A Yankee view of capitalism.* New York, Boni & Liveright, 1918. 191 pp.

The author develops his ideas regarding Americanized socialism in chapters entitled Americanism and socialism; The perversion of property; Why the capitalist is not a robber; Applying engineering to politics; What is efficiency? and What is democracy? In the following chapter, on How to combine democracy with efficiency, a method of applying socialism is outlined, the broad principles of which are as follows: "Public ownership and operation of important industrial activities; Fixation of wages and prices by disinterested and expert public authorities; and Annual (or semiannual) division of the surplus in industry between producers and consumers." The application of these principles is then considered in detail in answers to the following questions: How will wages be fixed under socialism?; How will prices be fixed under socialism?; How will the surplus of industry be divided under socialism?; How will deficits be avoided under socialism?; How will socialism insure the thrift necessary for the accumulation of capital?; How will socialism avoid the perversion of property?; How will socialism solve the labor and "trust" problems?; How will socialism promote productive efficiency?; How will socialism promote distributive efficiency?; How will socialism promote consumptive efficiency?; How will socialism provide leisure?; How will socialism keep the population within safe limits?; and How will socialism abolish poverty? The final chapter deals with the transition to socialism.

NATIONAL ASSOCIATION OF WOOL MANUFACTURERS. *Annual wool review, 1918. Domestic wool clip, imports of wool and woolens, and other statistical tables.* Boston, 1919. 77 pp.

NATIONAL CATHOLIC WAR COUNCIL. *Committee on special war activities. Social reconstruction: A general review of the problems and survey of remedies.* Washington, 930 Fourteenth Street, N.W., 1919. 24 pp. *Reconstruction pamphlets No. 1.*

An outline of what its framers consider a practical and moderate program of social reconstruction, confined to "those reforms that seem to be desirable and also obtainable within a reasonable time, and to a few general principles which should become a guide to more distant developments." Among various subjects considered are the United States Employment Service; women war workers; the National War Labor Board; present wage rates; housing for working classes; reduction of the cost of living; the legal minimum wage; social insurance; labor participation in industrial management; vocational training; child labor; cooperation and copartnership; increased incomes for labor; and abolition and control of monopolies.

NATIONAL CHILD LABOR COMMITTEE. *Child Welfare in North Carolina. An inquiry for the North Carolina Conference of Social Service, under the direction of W. H. Swift.* New York, 1918. 314 pp. Price, \$1.

The report contains sections on dependency and delinquency, child-caring institutions, agriculture, rural school attendance, child labor, and law and administration. It was found that, as in most other States, the laws respecting children are decidedly a patchwork. A law would be passed dealing with some phase of child care which happened to arouse public attention without any reference as to how this law fitted into the situation as a whole; the process would be repeated as another phase became prominent, and so on. There is much need of a code dealing with the whole subject of child care, based on the idea that it is the duty of the State to make sure that all its children, not merely those who are conspicuously neglected, defective, or dependent, should receive at least a minimum of careful supervision. The authors of this report feel that it would be a grave mistake to attempt the compilation of such a code without full preliminary investigation and consideration. In each section of the report the shortcomings of the existing laws in relation to the subject with which it deals are pointed out, and some recommendations are made for immediate measures of improvement. For the situation as a whole, it is recommended that the general assembly of 1919 should authorize the governor to appoint a commission, its members to serve without pay, which should study all conditions and laws affecting children and report to the general assembly of 1921. By some such procedure the basis could be obtained for a unified code, adapted to the actual needs of the State.

NATIONAL EDUCATION ASSOCIATION (GREAT BRITAIN). *The Education Act, 1918. Summarized and explained.* London, 1918. 16 pp. No. 195. Price, 6d.

This act was reviewed in the December issue of the MONTHLY LABOR REVIEW, pp. 42-46.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Problems of industrial readjustment in the United States.* Boston, 15 Beacon Street, February, 1919. 58 pp. *Research Report No. 15.*

The aim of this report is to define the problem of industrial readjustment—not to solve it—in the belief that a clear statement of the questions involved should tend to narrow inevitable differences of opinion and promote efforts to reach sound conclusions. An introduction states briefly the problem in the United States and abroad. Chapters of special interest are devoted to Readjustment as affecting labor, and Relation of the Government to industry. The former considers Demobilization of military forces; Civilian war workers; Demand for labor—various industries considered separately; Women in industry; Emigration and immigration; Hours of work; Wages; and Representation of workers. Regarding the wage problem the report offers the follow-

ing suggestions as being "likely to receive widespread attention:" Extension of the principle of the minimum wage; standardization of wage rates for different occupations; cooperation in industrial establishments with a view toward effecting greater parity in wages; extension of piecework; and such increased efficiency of workers as will obviate the necessity for a drastic reduction in wage rates.

NATIONAL INDUSTRIAL CONFERENCE BOARD. *Rest periods for industrial workers.* Boston, January, 1919. 55 pp. Research Report No. 13.

In 1918 the National Industrial Conference Board sent out schedules of inquiry concerning rest periods to 388 employers, of whom 104 replied that they had tried regular rest periods for some or all of their employees, 129 stated they had made no experiments with rest periods, and 155 returned no answers. Fifteen of those who had tried rest periods subsequently discontinued them for some or all of the employees affected. Of the 104 establishments in which rest periods had been tried, 85 were engaged in manufacturing. Of this number, declares the report, 17 allowed such recesses to all employees; 37 to women exclusively, though not always to all women employees; 17 to clerical workers, though not always to all clerical workers; 51 only to selected classes of factory employees.

The commonest arrangement of rest periods was a recess of from 5 to 15 minutes occurring in the middle of the morning and afternoon work periods. It was far more commonly used for women than for men. In the main, managers who had tried rest periods approved of them, as diminishing fatigue. They were considered especially desirable for those whose work demanded close and continuous attention, for those engaged in very heavy work, and for those whose work required continuous standing or sitting. Where such conditions prevailed, the rest periods often increased production; practically no replies ascribed a decrease in output to their introduction. Some employers claimed that rest periods interfered with the discipline and morale of the workers.

The superintendent of a large machinery plant claimed that male labor was in an unsettled frame of mind, ready to find fault and formulate demands, and that rest periods offered an interruption which gave a chance for the expression of such tendencies. He attributed the only strike in the history of his establishment to rest periods.

Such reports were exceptional, however. Too much stress must not be laid on rest periods as a means of lessening fatigue.

While rest periods may be a valuable supplementary means for the removal of fatigue, the fundamental means for its prevention are the provision of suitable working conditions such as proper lighting, heating, ventilation, installation of labor-saving devices, and adaptation of the equipment to the worker.

NATIONAL URBAN LEAGUE. *A contribution to democracy. The record of some results of cooperation by two races. Annual report 1917-18.* New York, 200 Fifth Avenue, January, 1919. 23 pp. Illustrated. Bulletin, vol. 8, No. 1.

Contains a report of the work for the year and plans for the ensuing year, which latter call for: The establishment of additional city organizations wherever possible; campaigns especially to interest southern communities in welfare work for colored people; efforts to interest industrial plants in the appointment of negro welfare workers to help develop efficiency in negro workers and to show employers the value of Negro labor; the training of negro welfare workers in established schools of civics and philanthropy by means of fellowships provided in part by the league and through experience gained in field work in the several cities that are organized; the development of publicity mediums through which the needs of the colored population may be placed forcefully before the American public; and further progress in developing cooperation between existing organizations with the view of ameliorating the living and working conditions among the colored people of America.

NATIONAL WORKMEN'S COMPENSATION SERVICE BUREAU. *Workmen's compensation statistical plan: System of securing and compiling workmen's compensation statistics. Effective January 1, 1919. New York, 1919. vi, 83 pp.*

A fundamental revision of the workmen's compensation statistical plan in use by the National Workmen's Compensation Service Bureau of New York has just been issued by that bureau. The volume is divided into two parts. Part I contains detailed instructions and rules for the interpretation and classification of accident and compensation experience. Part II contains the standard accident tables in use by the bureau. These tables cover classifications of accidents by cause, nature, and location of injury; extent of disability; and a detailed code of occupational diseases.

NORTH LONDON MANUFACTURERS' ASSOCIATION. *Relations between employers and employed—after the war, by Hubert B. Graham. London, 1918. 24 pp.*

A paper upon future relations in industry, the spirit of which is expressed in the following quotation: "In considering these and other problems which the future may have in store both employers and employed must cultivate and preserve an even balance of mind when sighting something new from an unusual angle of view."

PAEUW, LEON DE. *The vocational reeducation of maimed soldiers. Translated into English by the Baronne Moncheur and Elizabeth Kemper Parrott. Princeton, Princeton University Press, 1918. 194 pp.*

A review of this work in the original appeared in the June, 1918, number of the MONTHLY REVIEW, page 239.

PARIS. INSTITUT ADMINISTRATIF. *Le concours pour l'emploi d'inspecteur ou d'inspectrice du travail dans l'industrie. Paris, 1915. 92 pp. Supplement, 1918. Paris, 1918. 15 pp. Bibliothèque d'Enseignement administratif.*

Required subjects to be taken in competitive examinations for labor inspectors, and regulations for appointment, salaries, advancement, annual leave, and retirement.

PEOPLE'S YEARBOOK AND ANNUAL OF THE ENGLISH AND SCOTTISH WHOLESALE SOCIETIES, 1919. *Second year of publication. Manchester, England, Cooperative Wholesale Society Limited, 1 Balloon Street, 1919. 384 pp. Illustrated.*

This volume takes the place of the Annual of the Cooperative Wholesale Societies (English and Scottish), which has been dropped in its usual form; some of its features, however, are combined with the People's yearbook. The aim of this publication is to give each year "reliable information on subjects essential to all who are desirous of keeping themselves acquainted with advanced and democratic forces, as well as with matters we should know something about." Special articles are included in this volume by J. R. Clynes on National food questions; by James Long on Can we supply ourselves with food?; and by other authorities.

PROTESTANT EPISCOPAL CHURCH. *Joint Commission on Social Service. The church and the home-coming man. Suggestions for cooperation. New York, 281 Fourth Avenue, 1919. 30 pp. Reconstruction Series, Bulletin No. 1.*

Considers the problem of unemployment and the responsibility with which the church is faced for assisting in the refitting of the demobilized men into community and industrial life. Outlines methods by which the church may be of practical assistance. In an appendix the plan for settling returned soldiers on the land and the progress already made in this direction are discussed.

ROBERTSON, J. M. *The economics of progress. London, T. Fisher Unwin (Ltd.), 1918. 298 pp.*

A collection of lectures, slightly revised since original delivery, aiming "at a partial practical application of economic ideas to the great problem of 'reconstruction.'" One of the lectures treats of the Economics of labor.

SAFETY INSTITUTE OF AMERICA. *Safety. Bulletin, January 1919. 14-18 West 24th Street, New York. 29 pp. Illustrated.*

This issue of Safety is devoted largely to the publication of the Federal standards for head and eye protection. It is the sixth installment of the safety and sanitary requirements for Federal industrial establishments, formulated by the safety engineers of the United States arsenals and navy yards.

SECRETARIAT DES PAYSANS SUISSES. *Rapport au Département suisse de l'Economie publique. Recherches relatives à la rentabilité de l'agriculture pour la campagne 1916/17 (1^{er} mars 1916—28 février 1917). Berne, Imprimerie K.-J. Wyss Erben, 1918. Pp. 266-457.*

This report of the secretary of the Union of Swiss Farmers is in two parts, the first being devoted to a brief consideration of Swiss agriculture in 1916, and the second and major part to the results of researches concerning the profits from Swiss agriculture in 1916-17. Statistical tables give in detail the cost of production, including the wages of farm labor, and the returns in different departments of agriculture.

THE TRUTH ABOUT THE MINIMUM WAGE. *February, 1919. 16 pp.*

This pamphlet, distributed by the Consumers' League of New York State, illustrates the need for minimum wage legislation by citing figures compiled by the State Industrial Commission showing that of 61,160 women in factories and stores who were made the subject of a special study, 75 per cent were receiving less than the \$15 a week which is looked upon as the minimum living wage in New York. Answers standard objections to such legislation by the experience of various States in which minimum wage laws are in operation.

WARBURG, PAUL M. *A suggestion of the main principles on which the solution of the railroad problem should be sought. Address delivered at the monthly meeting of the Chamber of Commerce of the State of New York, February 6, 1919. New York, 17 E. 80th Street, 1919. 36 pp.*

WILD, A. *Zivil-und armenrechtliche Jugendfürsorge. Zurich, 1917. 293 pp.*

A handbook for guardians, poor relief, and State authorities, directors of institutions, etc., on protective child legislation in Switzerland.

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. 235 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.

Wages and Hours of Labor—Concluded.

- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.
- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917. [In press.]
- Bul. 252. Wages and hours of labor in slaughtering and meat-packing industry. [In press.]

Employment and Unemployment.

- Bul. 109. Statistics of unemployment and the work of employment offices in the United States.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States.
- Bul. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.

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.
- Bul. 253. Women in the lead industry.

Workmen's Insurance and Compensation (including laws relating thereto).

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
- Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 240. Comparison of workmen's compensation laws of the United States.
- Bul. 243. Workmen's compensation legislation in the United States and foreign countries.
- Bul. 248. Proceedings of the Fourth Annual Meeting of the International Association of Industrial Accident Boards and Commissions.

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.
- Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 231. Mortality from respiratory diseases in dusty trades.
- Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- Bul. 236. Effect of the air hammer on the hands of stonecutters.
- Bul. 251. Preventable death in the cotton manufacturing industry. [In press.]
- Bul. 256. Accidents and accident prevention in machine building. (Revised.) [In press.]

Conciliation and Arbitration (including strikes and lockouts).

- Bul. 124. Conciliation and arbitration in the building trades of Greater New York.
- Bul. 133. Report of the industrial council of the British Board of Trade on its inquiry into industrial agreements.
- Bul. 139. Michigan copper district strike.
- Bul. 144. Industrial court of the cloak, suit, and skirt industry of New York City.
- Bul. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City.
- Bul. 191. Collective bargaining in the anthracite coal industry.
- Bul. 198. Collective agreements in the men's clothing industry.
- Bul. 233. Operation of the Industrial Disputes Investigation Act of Canada.

Labor Laws of the United States (including decisions of courts relating to labor).

- Bul. 111. Labor legislation of 1912.
- Bul. 112. Decisions of courts and opinions affecting labor, 1912.
- Bul. 148. Labor laws of the United States, with decisions of courts relating thereto.
- Bul. 152. Decisions of courts and opinions affecting labor, 1913.
- Bul. 166. Labor legislation of 1914.
- Bul. 169. Decisions of courts affecting labor, 1914.
- Bul. 186. Labor legislation of 1915.
- Bul. 189. Decisions of courts affecting labor, 1915.
- Bul. 211. Labor laws and their administration in the Pacific States.
- Bul. 213. Labor legislation of 1916.
- Bul. 224. Decisions of courts affecting labor, 1916.
- Bul. 229. Wage-payment legislation in the United States.
- Bul. 244. Labor legislation of 1917.
- Bul. 246. Decisions of courts affecting labor, 1917.
- Bul. 257. Labor legislation of 1918. [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.
- Bul. 222. Welfare work in British munition factories.
- Bul. 223. Employment of women and juveniles in Great Britain during the war.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 237. Industrial unrest in Great Britain.
- Bul. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee. [In press.]
- Bul. 255. Joint standing industrial councils in Great Britain. [In press.]

Miscellaneous Series.

- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working day for women and young persons.
- Bul. 123. Employers' welfare work.
- Bul. 158. Government aid to home owning and housing of working people in foreign countries.
- Bul. 159. Short-unit courses for wage earners, and a factory school experiment.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 170. Foreign food prices as affected by the war.
- Bul. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
- Bul. 208. Profit sharing in the United States.
- Bul. 222. Welfare work in British munition factories.
- Bul. 242. Food situation in Central Europe, 1917.
- Bul. 250. Welfare work for employees in industrial establishments in the United States.
- Bul. 254. International labor legislation and the Society of Nations. [In press.]