

**U. S. DEPARTMENT OF LABOR**  
JAMES J. DAVIS, *Secretary*  
**BUREAU OF LABOR STATISTICS**  
ETHELBERT STEWART, *Commissioner*

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BUREAU OF LABOR STATISTICS } . . . . . **No. 429**

M I S C E L L A N E O U S   S E R I E S

**PROCEEDINGS OF THE THIRTEENTH ANNUAL  
CONVENTION OF THE ASSOCIATION OF  
GOVERNMENTAL LABOR OFFICIALS OF  
THE UNITED STATES AND CANADA**

**HELD AT COLUMBUS, OHIO  
JUNE 7-10, 1926**



**JANUARY, 1927**

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## OFFICERS, 1925-26

*President.*—H. R. Witter, Columbus, Ohio.  
*First vice president.*—John S. B. Davie, Concord, N. H.  
*Second vice president.*—R. H. Lansburgh, Harrisburg, Pa.  
*Third vice president.*—Maud Swett, Milwaukee, Wis.  
*Fourth vice president.*—Alice McFarland, Topeka, Kans.  
*Fifth vice president.*—H. C. Hudson, Toronto, Canada.  
*Secretary-treasurer.*—Louise E. Schutz, St. Paul, Minn.

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## CONSTITUTION

Adopted at Chicago, Ill., May 20, 1924; amended August 15, 1925

### ARTICLE I

**SECTION 1. *Name.***—This organization shall be known as the Association of Governmental Labor Officials of the United States and Canada.

### ARTICLE II

**SECTION 1. *Objects.***—To act as a medium for the exchange of information for and by the members of the organization; to secure better legislation for the welfare of women and children in industry and the workers in general; to promote greater safety to life and property; to promote greater uniformity in labor-law enforcement, establishing of safety standards, compiling and disseminating labor and employment statistics; and to more closely correlate the activities of the Federal, State, and Provincial departments of labor.

### ARTICLE III

**SECTION 1. *Membership.***—The active membership of this association shall consist of—

(a) Members of the United States Department of Labor and the Department of Labor of the Dominion of Canada; such representatives of the bureaus or departments of the United States or Canada being restricted by law from paying dues into this association may be members with all privileges of voice and vote, but are not eligible for election to office. They may serve on committees.

(b) Members of State and Provincial departments of labor.

(c) Members of Federal, State, or Provincial employment services.

**SEC. 2. *Honorary members.***—Any person who has rendered service while connected with any Federal, State, and Provincial department of labor, and the American representative of the International Labor Office, may be elected to honorary membership by a unanimous vote of the executive board.

### ARTICLE IV

**SECTION I. *Officers.***—The officers of this association shall be a president, a first, second, third, fourth, and fifth vice president, and a secretary-treasurer. These officers shall constitute the executive board.

**SEC. 2. *Election of officers.***—Such officers shall be elected from the members at the regular annual business meeting of the association by a majority ballot, and shall hold office for one year, or until their successors are elected and qualified.

**SEC. 3.** The officers shall be elected from representatives of the active membership of the association, except as otherwise stated in Article III.

## ARTICLE V

**SECTION 1. Duties of the officers.**—The president shall preside at all meetings of the association and the executive board, preserve order during its deliberations, appoint all committees, and sign all records, vouchers, or other documents in connection with the work of the association.

**SEC. 2.** The vice presidents, in order named, shall perform the duties of the president in his absence.

**SEC. 3.** The secretary-treasurer shall have charge of all books, papers, records, and other documents of the association; shall receive and have charge of all dues and other moneys; shall keep a full and complete record of all receipts and disbursements; shall keep the minutes of all meetings of the association and the executive board; shall conduct all correspondence pertaining to the office; shall compile statistics and other data as may be required for the use of the members of the association; and shall perform such other duties as may be directed by the convention or the executive board. The secretary-treasurer shall present a detailed written report of receipts and expenditures to the convention; shall pay out no money until a voucher has been issued and signed by the president. The secretary-treasurer shall publish the proceedings of the convention within four months after the close of the convention, the issue to consist of such numbers of copies as the executive board may direct. The secretary-treasurer shall receive such salary as the executive board may decide, but not less than \$180 per year.

**SEC. 4.** In the event of a vacancy in any office, the executive board may elect a successor: *Provided*, The president shall be succeeded by the ranking vice president.

**SEC. 5.** The business of the association between conventions shall be conducted by the executive board, and all questions coming before the board shall be decided by a majority vote, except that of the election of honorary members, which shall be by unanimous vote.

## ARTICLE VI

**SECTION 1. Finances.**—The revenues of the association shall be derived from annual dues determined on the following basis: (a) Federal, State, or Provincial departments of labor, when the department staff consists of 1 to 5 persons, \$10; 6 to 25 persons, \$15; 26 to 75 persons, \$25; more than 75 persons, \$50.

The executive board may order an assessment levied upon affiliated departments not to exceed one year's dues.

## ARTICLE VII

**SECTION 1. Who entitled to vote.**—All active members shall be entitled to vote on all questions coming before the meeting of the association as hereinafter provided.

**SEC. 2.** In electing officers of the association, State departments of Labor represented by several delegates shall only be entitled to one vote. The delegates from such departments must select one person from their representatives to cast the vote of the group.

The various bureaus of the United States Department of Labor and the Department of Labor of Canada may each be entitled to one vote.

The rule for electing officers shall apply to the vote for selecting convention city.

## ARTICLE VIII

**SECTION 1. Meetings.**—The association shall meet at least once annually at such time and place as the association in convention may select. The date of the annual meeting shall be decided by the executive board unless otherwise ordered by the convention.

## ARTICLE IX

**SECTION 1. Program.**—The executive board shall act as committee on program and shall prepare and publish the convention programs of the association.

**SEC. 2.** The committee on program shall set aside at least one session of the convention as a business session, at which session the regular order of business, election of officers, and selection of convention city shall be taken up, and no other business shall be considered at that session until the "regular order" has been completed.

ARTICLE X

SECTION 1. *Rules of order.*—The deliberations of the convention shall be governed by "Cushing's Manual."

ARTICLE XI

SECTION 1. *Amendments.*—Amendments to the constitution must be filed with the secretary-treasurer in triplicate and referred to the committee on constitution and by-laws. A two-thirds vote of all delegates shall be required to adopt any amendment.

ARTICLE XII

SECTION 1. *Order of business.*—

1. Roll call of members by States and Provinces.
2. Appointment of committees.
  - (a) Committee of five on officers' reports.
  - (b) Committee of five on resolutions.
  - (c) Committee of three on constitution and by-laws.
  - (d) Special committees.
3. Reports of officers.
4. Reports of States and Provinces.
5. Reports of committees.
6. Unfinished business.
7. New business.
8. Selection of place of meeting.
9. Election of officers.
10. Adjournment.

DEVELOPMENT OF THE ASSOCIATION OF GOVERNMENTAL LABOR OFFICIALS

ASSOCIATION OF CHIEFS AND OFFICIALS OF BUREAUS OF LABOR

No.	Date	Convention held at—	President	Secretary-treasurer
1	September, 1883.....	Columbus, Ohio.....	H. A. Newman.....	Henry Luskey.
2	June, 1884.....	St. Louis, Mo.....	do.....	Do.
3	June, 1885.....	Boston, Mass.....	Carroll D. Wright.....	John S. Lord.
4	June, 1886.....	Trenton, N. J.....	do.....	E. R. Hutchins.
5	June, 1887.....	Madison, Wis.....	do.....	Do.
6	May, 1888.....	Indianapolis, Ind.....	do.....	Do.
7	June, 1889.....	Hartford, Conn.....	do.....	Do.
	1890.....	Des Moines, Iowa.....	No meeting.....	Do.
8	May, 1891.....	Philadelphia, Pa.....	Carroll D. Wright.....	Frank H. Betton.
9	May, 1892.....	Denver, Colo.....	Charles F. Peck.....	Do.
	1893.....	Albany, N. Y.....	do.....	Do.
10	May, 1894.....	Washington, D. C.....	Carroll D. Wright.....	L. G. Powers.
11	September, 1895.....	Minneapolis, Minn.....	do.....	Do.
12	June, 1896.....	Albany, N. Y.....	do.....	Samuel B. Horne.
13	May, 1897.....	Nashville, Tenn.....	do.....	Do.
14	June, 1898.....	Detroit, Mich.....	do.....	Do.
15	July, 1899.....	Augusta, Me.....	do.....	Do.
16	July, 1900.....	Milwaukee, Wis.....	do.....	James M. Clark.
17	May, 1901.....	St. Louis, Mo.....	do.....	Do.
18	April, 1902.....	New Orleans, La.....	do.....	Do.
19	April, 1903.....	Washington, D. C.....	do.....	Do.
20	July, 1904.....	Concord, N. H.....	do.....	Do.
21	September, 1905.....	San Francisco, Calif.....	do.....	W. L. A. Johnson.
22	July, 1906.....	Boston, Mass.....	Charles P. Neill.....	Do.
23	July, 1907.....	Norfolk, Va.....	do.....	Do.
24	August, 1908.....	Detroit, Mich.....	do.....	Do.
25	June, 1909.....	Rochester, N. Y.....	do.....	Do.

Development of the Association of Governmental Labor Officials—Continued

INTERNATIONAL ASSOCIATION OF FACTORY INSPECTORS

No.	Date	Convention held at—	President	Secretary-treasurer
1	June, 1887	Philadelphia, Pa.	Rufus R. Wade	Henry Dorn.
2	August, 1888	Boston, Mass.	do	Do.
3	August, 1889	Trenton, N. J.	do	Do.
4	August, 1890	New York, N. Y.	do	do
5	August, 1891	Cleveland, Ohio	do	do
6	September, 1892	Hartford, Conn.	do	do
7	September, 1893	Chicago, Ill.	John Franey	Mary A. O'Reilly.
8	September, 1894	Philadelphia, Pa.	do	Evan H. Davis.
9	September, 1895	Providence, R. I.	do	do
10	September, 1896	Toronto, Canada	do	do
11	August and September, 1897	Detroit, Mich.	Rufus R. Wade	Alzina P. Stevens.
12	September, 1898	Boston, Mass.	do	do
13	August, 1899	Quebec, Canada	do	Joseph L. Cox.
14	October, 1900	Indianapolis, Ind.	do	do
15	September, 1901	Niagara Falls, N. Y.	do	do
16	December, 1902	Charleston, S. C.	do	do
17	August, 1903	Montreal, Canada	James Mitchell	Davis F. Spees.
18	September, 1904	St. Louis, Mo.	Daniel H. McAbee	Do.
19	August, 1905	Detroit, Mich.	Edgar T. Davies	C. V. Hartzell.
20	June, 1906	Columbus, Ohio	Malcolm J. McLeod	Thos. Keity.
21	June, 1907	Hartford, Conn.	John H. Morgan	Do.
22	June, 1908	Toronto, Canada	George L. McLean	Do.
23	June, 1909	Rochester, N. Y.	James T. Burke	Do.

JOINT MEETING OF THE ASSOCIATION OF CHIEFS AND OFFICIALS OF BUREAUS OF LABOR AND INTERNATIONAL ASSOCIATION OF FACTORY INSPECTORS

24	August, 1910	Hendersonville, N. C., and Columbia, S. C.	J. Ellery Hudson	E. J. Watson.
25	September, 1911	Lincoln, Nebr.	Louis Guyon	W. W. Williams.
26	September, 1912	Washington, D. C.	Edger T. Davies	Do.
27	May, 1913	Chicago, Ill.	A. L. Garrett	W. L. Mitchell.

ASSOCIATION OF GOVERNMENTAL LABOR OFFICIALS

Resulting from the Amalgamation of the Association of Chiefs and Officials of Bureaus of Labor and the International Association of Factory Inspectors

No.	Date	Convention held at—	President	Secretary-treasurer
1	June, 1914	Nashville, Tenn.	Barney Cohen	W. L. Mitchell.
2	June-July, 1915	Detroit, Mich.	do	John T. Fitzpatrick.
3	July, 1916	Buffalo, N. Y.	James V. Cunningham	Do.
4	September, 1917	Asheville, N. C.	Oscar Nelson	Do.
5	June, 1918	Des Moines, Iowa	Edwin Mulready	Linna E. Bresette.
6	June, 1919	Madison, Wis.	C. H. Younger	Do.
7	July, 1920	Seattle, Wash.	Geo. P. Hambrecht	Do.
8	May, 1921	New Orleans, La.	Frank E. Hoffman	Do.
9	May, 1922	Harrisburg, Pa.	Frank E. Wood	Do.
10	May, 1923	Richmond, Va.	C. B. Connelley	Louise Schutz.
11	May, 1924	Chicago, Ill.	John Hopkins Hall, jr.	Do.
12	August, 1925	Salt Lake City, Utah	George B. Arnold	Do.
13	June, 1926	Columbus, Ohio	H. R. Witter	Do.



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NO. 429

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## PROCEEDINGS OF THE THIRTEENTH ANNUAL CONVENTION OF THE ASSOCIATION OF GOVERNMENTAL LABOR OFFICIALS OF THE UNITED STATES AND CANADA, COLUMBUS, OHIO, JUNE 7-10, 1926

MONDAY, JUNE 7—EVENING SESSION

H. R. WITTER, PRESIDENT A. G. L. O., PRESIDING

The thirteenth annual convention of the Association of Governmental Labor Officials of the United States and Canada was opened at 6.30 p. m., June 7, H. R. Witter, director of the Department of Industrial Relations of Ohio and president of the association, presiding. After an address of welcome by Mrs. Donahey, James Wilson, of Cincinnati, president of the Patternmakers' League and seventh vice president of the American Federation of Labor, delivered the following address:

### ADDRESS OF JAMES WILSON

You men and women are interested in problems concerning industries. Here in this great State we have laws governing conditions that surround men and women. In all that the State of Ohio has done in connection with legislation for its people, there is only one act of hers I feel ashamed of, and I hope that soon she will rectify that mistake. That is that she has not yet ratified the child labor amendment to the Federal Constitution.

I was thinking awhile ago that within the lifetime of the men and women who are here to-night, when men and women were struggling and sacrificing against tremendous odds to make possible the formation of an organized effort to improve the standard of life of the workers of our land, there were no labor laws, there were no protective features on the statute books of any State or in the Federal law. But there came that movement of men and women, too, that sought to bring betterment into the lives of mankind, and in some way and somehow, just like every great movement in every period of the world's history, it has been directed into the right channel by the hand of God; so the great labor movement grew from nothing but the discontent of men for betterment, and over the few short years of its existence the labor movement has accomplished a wonderful work. It has brought happiness and sunshine where misery and darkness prevailed. It has brought both hope and cheer, in the face of the indifference of thousands and thousands of people who should embrace the opportunity to become members of the labor movement.

Trace the history of this trade labor movement, trace it from its inception down to date; study, analyze its achievements, and no man who understands the history of the world, the development of man-

kind, can say that it is not the work of the Supreme Ruler of the Universe, and the labor movement is the instrument in His hand that is going to bring justice to all of the people of our land; and the labor movement, misunderstood, misrepresented as it is, has steered a course advocating great things.

I remember well when in Ohio we were endeavoring to secure the passage of a workmen's compensation law the manufacturers of Ohio sent appeals to the voters of this State not to pass such socialistic legislation. Large manufacturers threatened to leave our State, move their plants into other States, if Ohio adopted a workmen's compensation law; and to-day those same manufacturers appear before the legislative committee in Columbus protesting against any changes that would set that workmen's compensation law backward. They have seen a new light, and to-day they are advocates of the things that they were then so much opposed to. And so it is, I find, with all great reforms. Men are fearful that if the things that are advocated by forward-looking men and women become a reality, why they fear for the very safety of the Nation, and after once that thing has been put into operation by the persistent efforts of those who are interested in it these same people wonder how we ever got along without it.

So it was nearly 50 years ago when the first convention of the American Federation of Labor met. The first resolution, number one, was a resolution of condemnation of the employment of children in the industries of our country. And to-day in nearly every State in this Union we have legislation regulating the employment of children, but in some States there is no legislation that protects the childhood of those States. The American Federation of Labor set itself to the task nearly a half century ago to free the children from the mill, mine, and workshop; and I say to you men and women assembled here to-night that the labor movement of America will persist in its efforts until the most backward State in the Union recognizes the rights of the little children and protects them from early employment. And though it may be that propaganda was carried on that deceived the people of this country as to the purposes of the Federal amendment, when our people awaken to the real conditions that surround some 2,000,000 children in America they will free these children by indorsement of the Federal amendment, and I will say to you people here visiting this State, perhaps for the first time, though the last Legislature of Ohio failed to indorse that amendment, Ohio will send its indorsement of the child labor amendment to the Federal Constitution to the Secretary of State at Washington, because the people of Ohio, like the people of every other State, love children. Why, in our great Nation, with the great development we have made in production, with our bountiful blessings, with our great natural resources, with our great wealth, why anyone should want to exploit these little children is more than I can understand.

I have stood at the cotton-mill gate of the South, I have seen the children in the industries of New Jersey, I have seen the breaker boy at the mine in Pennsylvania before the influence of legislation was felt, and I have seen improvement come in industries, and you can't help but notice improvement in citizenship, because children have an opportunity of education. And so I say to you men and women

here, who constitute the forces of the States of the Nation in enforcing labor legislation, that the labor movement of America never sought one law, never sought one thing that was a special privilege merely for labor from any legislative body of this land. We seek to enact legislation in the interest of all of our people, and in our efforts to bring about legislation that will protect child life we are protecting the very foundation upon which this Government rests. In our efforts to secure the workmen's compensation law it is not for the worker alone, it is for society in general. In our efforts for factory inspection laws, or whatever kind of law, it has been demonstrated through the enforcements, after the enactment of the law, that it is for the general good of all of the people of our great land. Our labor movement in America is not a movement similar to that which exists in other nations. We are a movement of men and women who believe fundamentally in the principle of our Government. We believe that she was dedicated upon the altar of freedom. We believe that in her Constitution there is opportunity for all classes of citizenship. We don't seek in America to set up a government of labor, neither do we advocate the setting up of a government of any other class of citizenship of this great Nation. We believe that we should have that kind of government that was advocated by the immortal Lincoln, a "government of the people, by the people, and for the people."

The millions of men and women who constitute the labor movement of America are a part of the people of this great Nation, who do not want a government for labor, but we want a government for all people, and with special privilege to none, and we propose, regardless of how much our efforts may be misunderstood, regardless of how much our movement may be misrepresented, that we are going to continue our efforts until the last vestige of misery and despair is removed from this earth, until you shall no longer hear the wail of the child above the roar of the machinery, until justice shall have come in all its fullness to all the people, and we shall never cease our efforts until democracy in industry is as secure to the people of our land as we believe that democracy in our political life is free to the people of this great Nation.

You men and women who constitute the great forces in the enforcement of the things that have been brought about through the agitation of the great labor movement of our country, I say to you as a representative of labor, in your duties as enforcement officers be honest, see that law is complied with; when justice is done, when favoritism no longer prevails, then justice shall be nearer here, and our people will have more and more of happiness, contentment, and prosperity, and in working to that end we will dig deeper and more securely the foundation of the greatest Government on God's green footstool, America.

[The following committees were appointed:]

*Committee on resolutions.*—J. Hopkins Hall, jr., of Virginia, chairman; T. G. Freshney, of Wyoming; R. T. Kennard, of Kentucky; F. J. Plant, of Ottawa, Canada; and Charlotte Carr, of Pennsylvania.

*Committee on constitution and by-laws.*—Henry McColl, of Minnesota, chairman; H. M. Stanley, of Georgia; and Mrs. Daisy Gulick, of Kansas.

*Committee on officers' reports.*—Miss Ethel Johnson, of Massachusetts, chairman; George I. Daugherty, of West Virginia; M. H. Alexander, of Colorado; W. H. Horner, of Pennsylvania; and Frank E. Wood, of Louisiana.

**TUESDAY, JUNE 8—MORNING SESSION**

**HERMAN E. WITTER, PRESIDENT A. G. L. O., PRESIDING**

[After the roll call the report of the secretary-treasurer was read, as follows:]

**REPORT OF SECRETARY-TREASURER, AUGUST 1, 1925, TO JUNE 1, 1926**

**BALANCE AND RECEIPTS**

Fund on hand at making of last report, August 1, 1925.....	\$741. 26
Receipts from interest on savings account, First National Bank....	6. 70
Dues to July 1, 1925, as follows:	
Indiana.....	\$10. 00
New Jersey.....	25. 00
Ohio.....	25. 00
	60. 00
Dues to July 1, 1926, as follows:	
Ohio.....	25. 00
California.....	15. 00
Louisiana.....	10. 00
Virginia.....	15. 00
North Carolina.....	10. 00
New Hampshire.....	10. 00
Colorado.....	15. 00
Indiana.....	10. 00
Massachusetts.....	50. 00
Delaware.....	10. 00
North Dakota.....	10. 00
Minnesota.....	25. 00
Manitoba.....	15. 00
Kentucky.....	10. 00
Illinois.....	15. 00
Washington.....	25. 00
Georgia.....	10. 00
Pennsylvania.....	50. 00
New Jersey.....	25. 00
Oklahoma.....	10. 00
New York.....	50. 00
South Carolina.....	10. 00
Iowa.....	15. 00
Connecticut.....	10. 00
Wisconsin.....	50. 00
Kansas.....	15. 00
Ontario.....	10. 00
Utah.....	10. 00
	535. 00
Total.....	1, 342. 96

**DISBURSEMENTS**

1925	
Aug. 26. Secretary-treasurer, salary, July, 1924—July, 1925.....	180. 00
26. Chase Printing Co., programs.....	15. 00
26. Secretary-treasurer, expenses, Salt Lake City.....	17. 26
26. Secretary-treasurer, stamps.....	2. 00

## DISBURSEMENTS—continued

1925		
Sept.	4. Secretary-treasurer, stamps .....	\$5. 00
	18. Contribution, National Legal Aid Organization....	50. 00
	25. Printing resolutions, Theo. Kelley.....	6. 50
Oct.	1. Secretary-treasurer, stamps .....	5. 00
	8. R. Mark, stenographic service.....	175. 00
	11. Western Union, telegram.....	. 72
	16. Chase Printing Co., stationery.....	44. 00
	20. L. Roehnisch, stenographic service.....	15. 00
Nov.	18. Western Union, telegram.....	1. 20
1926		
Jan.	24. Secretary-treasurer, expense to board meeting, Chicago .....	44. 00
Feb.	8. M. Swett, expense, to board meeting, Chicago....	2. 17
	18. Secretary-treasurer, stamps.....	5. 00
	23. T. Kelley, printing form letter.....	1. 50
Mar.	1. R. Carroll, stenographic service.....	15. 00
	30. Secretary-treasurer, stamps.....	3. 00
Apr.	24. T. Kelley, printing tentative program.....	6. 50
	27. Stamps.....	4. 00
	29. R. Carroll, stenographic service.....	11. 50
May	21. Secretary-treasurer, stamps.....	5. 00
June	3. R. Carroll, stenographic service.....	15. 00
	3. T. Kelley, printing.....	1. 50
	3. Chase Printing Co., 400 programs.....	21. 00
	3. B. Holstrom, clerical work.....	5. 00
	Total.....	\$656. 85
	First National, savings account.....	493. 83
	Checking account.....	192. 28
	Total on hand.....	686. 11
		<hr/> 1, 342. 96

Respectfully submitted.

LOUISE E. SCHUTZ, *Secretary-Treasurer.*

[The report was adopted as read.]

The CHAIRMAN. I will now ask Mr. John S. B. Davie, Commissioner of Labor of New Hampshire, our first vice president, to come forward and take the chair.

## REPORTS OF NEW LEGISLATION

Mr. DAVIE. We will now take up the reports of progress from States and Provinces. The delegate from each State, as the name is called, will make his report. The idea of this report is to state briefly any legislation that has been enacted since the last meeting.

## REPORT OF CANADA

The social legislation is entirely under the control of the provincial legislature. The Canadian Parliament has adopted an old-age pension law; this is legislation that has been advocated by labor organizations for many years, and the present session of the Canadian Parliament has seen fit to enact that law. However, this is contingent upon the Province being a contributor to it, and any Province that may desire to take advantage of the old-age pension will have to pass similar legislation. Both the Federal authorities and the provincial authorities then become parties to the payment of the compensation on the old-age pension and also to the maintenance and upkeep of the various offices which will have to be located in the Provinces in which the law will be applied.

Another matter which has been before the Federal Parliament at different times is the question of the eight-hour law. The labor people have been asking for legislation to make effective the eight-hour convention which was adopted at the first session of the International Labor Conference, held in Washington in 1919. Canada, being a party to the treaty of peace, signed the Treaty of Versailles and became a party to this convention, but the question of the eight-hour day when it was put before the Dominion Parliament was referred to the department of justice for decision as to whether the Federal Parliament had the power to adopt the eight-hour-day law. The decision of the department of justice was that it was a matter which dealt with civil rights for Provinces, consequently the Provinces will have to adopt that legislation before it can become effective.

#### REPORT OF COLORADO

In Colorado we have two departments that administer the laws affecting labor. The State industrial commission of three members has control of the State compensation law and all industrial disputes. The department of labor statistics, with the secretary of state the ex officio head, is administered by the deputy State labor commissioner. This department handles all matters not delegated to the industrial commission.

The principal work of the bureau just at the present time consists of factory inspection. The deputy State labor commissioner is the chief factory inspector. There are four deputy State factory inspectors—one a woman—who are sadly underpaid by a salary of \$100 a month each; \$50 a month traveling expense is allowed each of these inspectors. I might add that there are metalliferous-mine inspectors, coal-mine inspectors, oil inspectors, health inspectors, and others, none of whom are under our jurisdiction, who receive much higher salaries—in some cases as much as \$3,000 a year and traveling expenses. Factory inspectors, who are required to have a very wide general knowledge, are thus required to work for the State at the very lowest rate, which makes it difficult to retain the services of the very best officials. It is proposed to have this condition remedied at the forthcoming session of the State legislature. The assistance of the State Federation of Labor will be asked to accomplish this. A factory inspector should be paid by the State, at the very least, the same scale that he receives if working at his trade.

Our inspectors visit 4,000 different places annually. When it is remembered that Colorado covers a very large territory, the size of our undertaking can be appreciated.

Our department also has charge of the State free employment offices, but three years ago the legislature declined to appropriate the money to maintain them (about \$15,000 a year), and these offices are now closed.

The State private employment offices are licensed by the deputy State labor commissioner. There are 45 such in Colorado, mostly in Denver, and a large majority are teachers' agencies and offices that handle professional places only. Our private employment law is a good one and has proved to be very effective.

A work that requires much of the time of the department is the settlement of claims for wages. Although there is no law to back us up, we nevertheless accomplish much of benefit to the worker, securing settlement of about 70 out of every 100 claims filed. We handle an average of 125 claims a month. Through our efforts most of these are settled direct by the parties themselves, and there lies the great value of our wage-claim work. Sometimes large amounts and many persons are involved. For instance, in the month of December, 1923, claims to the amount of \$31,535 were presented and settled. Had the claimants

been forced to a settlement in a court, as at present conducted, this would have cost them from 5 to 10 per cent of claims.

After a long and varied experience in this line it is the conclusion of this department that the most effective State assistance that can be rendered by a statute is through the formation of a small-claims court, as in California and in Nevada, where a claimant can use the court power already established without cost to himself and can do it at once. This, in my opinion, is more effective than an attempt to clothe a labor commissioner with court powers.

#### REPORT OF GEORGIA

Last year we placed the minimum age limit for child labor at 14, with the provision that the child must be physically fit and able to read and write. The minimum age for night work and for certain specified hazardous occupations is 16. There were a few changes in the workmen's compensation law, but they related almost entirely to administration, and therefore are entirely unimportant to this meeting.

#### REPORT OF LOUISIANA

Our legislature is now in session. I have nothing to report, but I do feel I will be justified in telling what success we have met with up to the present time. Louisiana, as you know, has been one of the most backward States in the protection of child workers. You have often heard me say this. We now have before the legislature a bill reducing the hours to eight, leaving the age limit just as it is, requiring physical fitness and educational requirements. There was a unanimously favorable report before the committee of the house, with an excellent outlook for a similar report from the senate. We feel we are going to get a very much improved condition in Louisiana at this session. We have other matters, however, we are confident will pass, increasing the appropriations for departments, regulating the laborers' lien law, and also four changes in workmen's compensation, which will not prove detrimental to the workers. I hope next time when we come back I can look you people in the face and tell you we have got just as good a child-labor law as you have.

#### REPORT OF MASSACHUSETTS

The Legislature of Massachusetts passed a bill changing the statute requiring the removal of fumes, dusts, and gases from workrooms of industrial establishments. This law applied to a factory where five or more persons, and to a workshop where five or more women or children, were employed. It is now provided in chapter 159 of the General Acts of 1926 that a factory or workshop where more than one person is employed shall be so ventilated that gases, vapors, dusts, or other impurities injurious to health shall so far as practicable be rendered harmless.

The workmen's compensation law was amended to include among the persons conclusively presumed to be wholly dependent for support upon a deceased employee a parent upon an unmarried child under the age of 18 years, provided that such child was living with the parent at the time of the injury resulting in death. This amendment was provided in chapter 190 of the General Acts of 1926.

Twenty-seven bills were introduced in the legislature seeking to amend the workmen's compensation law of Massachusetts. These included provisions for increasing the amount of compensation to injured employees, adding to the schedule of specific injuries for which extra compensation is paid, establishing an exclusive State fund, and allowing employers to insure their own risks. This led

to the adoption of chapter 36 of the General Resolves of 1926, providing for the appointment of a special unpaid commission to investigate the operation of the workmen's compensation law in Massachusetts and to make such recommendations, with drafts of legislation, as may seem expedient.

On January 1, 1926, the revised rules and regulations pertaining to the painting business, adopted by the Department of Labor and Industries of Massachusetts, became operative. These included provisions for the better safeguarding of employees against injuries typical of the painting business. They superseded the rules adopted in 1915. The 10 years' experience with these rules showed the necessity for new provisions. New regulations for swing staging and interior scaffolding are included. Health requirements are made to protect employees in the spraying of paint.

#### REPORT OF NEW YORK

In addition to the research work of the factory inspectors we have a safety truck, a large white truck, to which two inspectors are assigned to go out and give moving pictures and lectures with reference to guarding machinery and on occupational diseases and such things as would bring directly to the workmen in the plant how to play safety first, not limiting ourselves to the hours of labor and the guarding of machines, but also including the health side of it, protection from the things used in the industry, and showing small manufacturers how they can install safety devices. Last year we started on a new thing; we are going into the moving-picture business. We have photographers who will be here later on to show you that side of our work; we use our entire staff for the actors; we don't have any sets; we have safety inspectors and other inspectors, who are also skilled mechanics, go into the factory, and we show exactly how the accident happened, if possible getting one of the men to whom the accident happened to pose for us and show us exactly what happened and how it should be done. In addition to that we are getting out a bulletin, through which we try to reach not only the manufacturers but also the people and the physicians. We are trying to get the State of New York more interested in the question of occupational diseases. The physicians do not report these cases, and it means delay and complications, and they could overcome a lot of this by reporting them and by recognizing the occupational disease and seeing that the individual puts in a claim and that the claim is compensated. Undoubtedly there are lots of just claims for occupational disease that are not compensated for, because they are not recognized by the physicians in regular practice. It means that each State must give it as much attention as guarding of machinery and the hours of labor, but so far as we can see occupational disease laws in many States are absolutely null and void.

We have compensation laws on our statute books, though those laws are useless as to occupational disease. They are practically nullified, as they either cover certain diseases you never see or they cover diseases that are rarely seen in industry. You understand New York has an industrial board which can make industrial codes based on the law. We have labor laws and wherever a question arises as to industry the industrial board can make a code to fit that and make rules and regulations for special industries based on some part of the law.

#### REPORT OF ONTARIO

In the last session of the legislature the workman's compensation law was amended to include silicosis as a compensable disease. The employee who has been exposed to silica dust in the mines must have been so exposed for a period

of at least five years prior to his disablement to make him subject to the regulations of the compensation board. The minimum wage board continues to function and is extending its order to all trades in which women are employed.

#### REPORT OF PENNSYLVANIA

Since we last met in Salt Lake City we have established a new bureau of women and children as a separate, independent bureau in charge of research, as it pertains to the employment of women and children. Also, it has charge of home work regulations in the State for the purpose of seeing that they are carried out. We have developed a number of new codes, and the bureau of industrial standards is at this time working on some 18 new codes affecting new industries. The greatest change we have had since the last meeting is that the mines other than the coal mines, such as limestone, clay, and the quarries in the State of Pennsylvania, have been made subject to safety regulations and are now inspected under those regulations. We feel we have made some progress, which I called to the association's attention at the meeting held at Salt Lake City last summer, and that is we have appointed three new supervisors and seven inspectors, all of whom are college graduates with experience in industrial work; and a number of the new inspectors appointed are also college men, all new appointees being high-school graduates with long industrial experience.

#### REPORT OF VIRGINIA

The legislature adjourned a few months ago in Virginia. Changes in the labor legislation did not receive a great deal of consideration, but there were a few unimportant changes made in the compensation act, largely of administrative character. An attempt was made to repeal the child labor law, but we were successful in checking the attempt and the law remained as it had been passed. We did succeed in amending the 10-hour law to the effect that restaurant employers are included in the provisions of the law and the employers are required to post the hours of labor of all their employees. We have been finding it difficult to enforce the 10-hour law without having the hours of employment posted.

#### REPORT OF WISCONSIN

The legislature was not in session since the last meeting, but the commission itself has adopted orders regulating the employment of children in beet fields and small telephone exchanges and revising the safety code.

#### DISCUSSION

The CHAIRMAN. I notice in going over these cards we have a representative from the Federal Department of Labor in Washington. We would be pleased to hear a report from Miss Mary Anderson.

Miss ANDERSON. I haven't very much to report this morning, as we are not a legislative bureau. I want to say we are now engaged in the study of the effect of labor laws on women in industry. We are just in the midst of our first work, and I want to say that I know that all the State departments that enforce any labor legislation regarding women can give us a great deal of information. I know we always have received a great deal of cooperation from State departments, and I just want to say that some of our agents will be calling on some of you some day. We are not going into each State, but in the States where we go I am sure you are going to give us

all the information you can. We want to find out what effect these laws have on women in industries. There is much question whether they are a help or a hindrance, and for that reason we want to get as much information as you have in your files, and also verbal information. When you enforce the labor law what really happens?

The CHAIRMAN. I don't know of any better time than right now to devote about 15 or 20 minutes to any special thing that has been done by any State or any industrial board to administer and enforce the labor laws. Has anyone anything to say at this time on that particular subject?

Mr. HUDSON. Under the direction of the chief sanitation inspector we are endeavoring to improve conditions under which men work in the mines and lumber woods. We have been able to bring the camps to such a degree of comfort and to such a high standard from a health standpoint that last year among the twenty or twenty-five thousand men working in the woods we had only two cases of typhoid fever in the whole Province—that is, in the unorganized territory. Our difficulty at the present time is to educate the men who go into the woods to keep the camp clean and in the sanitary condition in which the law of the Province requires it shall be kept. We are now carrying on through that same branch of the Department of Labor the problem of reducing the number of accidents in the woods. It may seem strange to you to hear that some of the men who go into lumber woods are so absolutely inexperienced that they manage to cut themselves on the back of the head with an ax. When you are dealing with men who are so inexperienced in handling edged tools that they are successful in cutting themselves in that inaccessible portion of their anatomy you see we must train the men and for that reason they must be educated to the use of tools. Besides that, if the man has been slightly injured, instead of allowing him to drift back to the city and become a charge on the community, we endeavor to persuade the employer to reengage the man. We feel that the very fact that he has been injured makes him a better risk in the future. Statistics show that probably 40 per cent of the accidents in the lumber woods occur during the first two or three weeks of the employment. If you can get a man over that period or bring him back after he has been injured during that period, the chances of his being hurt are proportionately reduced. We had 52 fatal accidents in the lumber woods in Ontario last year, and a large number of nonfatal injuries, but with the cooperation of the employer, particularly in the pulp and paper industry, we hope to reduce that number very materially, as we have been able to reduce the cases of typhoid fever and the deaths caused by typhoid fever.

Miss JOHNSON. The suggestion has been made that in addition to reports on legislation the States report on the work which they are doing. One of the activities of the Massachusetts Department of Labor and Industries which may be of interest is represented by the cooperation with the Massachusetts Association of School Superintendents and the State department of education in studying problems connected with the certification of children leaving school to enter employment. The association for several years has been studying these problems. One committee has been working on a handbook of procedure for issuing officials, explaining the various steps

in certifying children for work and describing the various types of certificates in use. The handbook of procedure is ready for printing and will probably be published this summer.

Another committee of the association which has had the cooperation of the State labor department is the committee on legislation, which has been considering amendments to the laws relative to the certification and employment of children. The association brought in two measures this year based on the recommendations of the legislative committee. One of the measures passed; the other failed. The first provided for defining an illiterate minor for the purpose of night school attendance. It established as a basis for such attendance in the case of illiterate minors the same requirements as are now fixed for children 14 to 16 years of age who wish to leave school for employment—that is, ability to meet the requirements for the completion of the sixth grade. This measure was enacted.

The other measure provided for more adequate health certification for working children 14 to 16 years of age. At the present time children between these ages are required to present, as one of the conditions for securing their working papers, a certificate signed by a school or family physician, stating that he has thoroughly examined the child and that in his opinion the child is in sufficiently sound health and physically able to perform the work for which he is applying. The bill of the Association of School Superintendents places the responsibility for this work more definitely upon the school officials by providing that the school physician should be authorized to issue these certificates. This measure was referred to the next annual session.

Other problems which the legislative committee has been studying include the regulation of the employment of children in agriculture and private domestic service. At the present time these occupations are largely outside of the labor laws in Massachusetts. The most important protection provided for children under 14 in this work comes from the compulsory school attendance laws. Outside of school hours and during the summer vacation there is practically no regulation.

Another separate committee of the School Superintendents' Association has for the past year been studying the subject of age and grade requirements for working children. That committee has also had the cooperation of the department of labor and industries through representation on its various committees and through assistance in the preparation of the report. Last November the report was published giving the results of the committee's work, and recommending that legislation be enacted providing for more educational opportunities for working children 14 to 16 years of age, and recommending a special type of education adapted to meet the needs of children who leave school to become wage earners.

As a result of this recommendation, legislation was presented by the State department of education this year asking for the establishment of half-time schooling for working children 14 to 16 years of age. The measure contemplated providing three types of educational opportunities for working children under the direction of the State department of education. For the children who wished to continue their school work, but for economic reasons were obliged to become

wage earners, it was planned to offer part-time academic courses; for the children who had definite trade interests specific trade-training courses were to be offered. For the larger group of children who are not academically minded and who have not as yet decided upon their future work, a type of vocational education representing a development of the present junior high school system was proposed. This measure, although strongly supported by many organizations, was referred to the next annual session. It will be reintroduced and eventually, I think, will be enacted.

The CHAIRMAN. Is there any other delegate's report?

Doctor GRAHAM-ROGERS. New York State took this stand that the proper way to teach safety was to begin with school children, the child that goes out into the industry and later on becomes a workman. Otherwise it would be like closing and locking the stable door after the horse has been stolen. That question was taken up this year, and we started a new method. We have in New York what is known as a continuation school, where the working children must go back and continue their education. Arrangements were made and all the teachers were called together and given various lectures by the personnel of different institutions, not only as to the guarding of machinery and safety but also as to the question of lighting, ventilation, compensation and administration. These teachers go back and teach successive classes about labor laws and what the child should do when he goes into industry—that is, see that proper safeguards are placed on machines, that there is proper ventilation and proper means of removing dust, fumes, etc.—so that when the child begins to work he will expect those things that conserve his health, and if they are not there he will ask for them.

In addition we have been giving lectures in schools for some years back. I think that it is a vital subject to be taken up by the delegates, that the child is told what safety means, not only in industry but also in other things, and that it is best for them to learn it in the schools; then when they get into the factories they will expect those things, and if they are not there they will ask for them and see that statutes are put on the books that will provide for them. When the question of health in industry comes up that means they should receive some education along that line and ask for the proper protection, whether it be dust, fumes, gases, or vapors. We have gotten out a number of new bulletins lately on saw guards and guards for punch presses; and for those of you who may be interested along medical lines we have a pamphlet on silicosis, also on ventilating conditions in laundries.

Mr. WOOD. I would like to ask a question. Did I understand Mr. Stanley, of Georgia, to say that they placed their age limit at 14, preventing the children under 15 from engaging in hazardous work?

Mr. STANLEY. Sixteen.

Mr. WOOD. Would you call work in a knitting mill hazardous work?

Mr. STANLEY. I think it would apply in building trades and machinery, saw mills, and that character, but it wouldn't affect the knitting mills.

The CHAIRMAN. If that is all, we will ask for reports of committees. I believe at this time we have a report of the committee on statistics.

[The report of the committee on statistics was read by Mr. Hall, chairman, and after some discussion and a few minor changes was adopted, as follows:]

#### REPORT OF COMMITTEE ON STATISTICS

Your committee, appointed at the last annual meeting of this association to consider uniform methods of collecting and compiling statistics, begs to make the following report:

The committee approached the problem well aware of the difficulties in the way of outlining a plan that will be found practicable and workable by all the various States. If every State had a sufficient organization and was adequately financed so as to be able to do all that it desired to do, it would be easy to formulate plans which all States might adopt, but we realize that such is not the case. Most States find that their appropriations are so small and their personnel so limited that they are able to do only a small portion of the work they would like to do. The conditions, too, in the various States are so widely different owing to the great variety of industries that it is difficult to set up a definite uniform program that can be adopted and carried out by all the States. The committee therefore presents for your consideration plans for four lines of study and investigation, one or more of which it is believed may be adopted and pursued by all of the States. These can be limited or added to to meet the possibilities of the individual States. The four lines of study are: Accident statistics, employment statistics, wages and hours of labor (pay-roll data), and union scales of wages.

The committee wants it clearly understood that in presenting plans for these four lines of study it does not recommend that all States, nor that any individual State, shall agree to pursue all or any one of these specified studies, but if any of the States find it possible to make these studies, that they will agree to make them along uniform lines that shall be adopted by this association.

#### INDUSTRIAL ACCIDENTS

No department of statistical inquiry more closely touches the public weal than the study of personal injuries by accident. Statistics of industrial accidents should serve for accident prevention, for the due administration and intelligent revision of workmen's compensation laws, and for the computation of compensation insurance rates. For accident prevention it is needful to know how and why accidents occur. For the better administration of workmen's compensation laws it is necessary to have an accurate statistical record of the disposal of compensation cases, not only the comparatively few cases which are formally passed upon by the administrative board but the immensely larger number of claims which are settled between the parties with only a pro forma administrative approval. For the intelligent enactment and revision of compensation legislation, legislators must know the number and character of accidental injuries, the extent of wage loss, and the cost in per cent of pay roll of any proposed scale of benefits. Lastly, for the computation of insurance rates it is necessary to have not only the actual pure premiums by industries but a detailed analysis of the accidents which occasion the pure premiums.

To serve these ends, accident statistics must be analyzed by industry, by cause of accident, and by nature and location of injury and extent of disability, and also by sex, and must be so cross analyzed as to show the correlation of each of these sets of facts with every other. Still other analyses are necessary. It is important to know the number, ages, and relationships of dependents in fatal cases and the age and wage groups of the injured in all cases. In certain industries an occupational analysis will be of value. It goes without saying

also that the pay-roll exposure should be obtained by industries, and that the wage loss and the amount of compensation and of medical aid should be shown by industry, by cause of accident, and by nature and location of injury and extent of disability. Many other statistical studies will prove necessary for particular purposes. Nevertheless, the classifications by industry, cause, and nature and extent of injury are primary. Faulty analysis in these respects will vitiate the whole statistical output. Vice versa, if these fundamental classifications are sound and adequate, everything else can be added as opportunity and occasion arise.

The most cursory examination will show that the official industrial accident statistics of the United States are lamentably weak in just these vital particulars, and no two States have produced results that are in any way comparable. One State department follows the census classification of industries, another uses the schedules of the old liability manual, a third the literal classifications of the compensation insurance manual. The classification of accident causes is sometimes so meager as to be of little value for prevention, sometimes so prolix and ill digested as to afford no comprehensive view. The classification of injuries ranges from the simple division into fatal and nonfatal to an individual list of permanent disabilities—the mere raw material of statistics.

The above is an abstract from the report on standardization of industrial accident statistics prepared by the committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions which was adopted by that association and is recommended as a basis for the approval of this association. This bulletin contains the full report of the committee whose service extended over a period of nearly six years. The committee was composed of the foremost workmen's compensation statisticians of the United States and their report was adopted by the association as embodying the needs and requirements for the intelligent collection and compilation of standard industrial accident statistics.

This report contains standard definitions, classification of industries, classification of causes of accidents, classification of accidents by location and nature of injury and extent of disability, standard forms of blanks on which to report accidents, standard forms of tabulation, and other information needed in the collection and compilation of uniform accident statistics. For details along any of these lines reference is made to Bulletin 276 of the United States Bureau of Labor Statistics.

#### EMPLOYMENT

It is impracticable to collect unemployment statistics regularly or frequently enough to be of any considerable value owing to the great length of time and large expense required. Therefore the most practicable way of arriving at the trend of unemployment is through the collection of employment statistics and the computation of an employment index.

Employment statistics to be of greatest value must be as nearly up to date as possible, and as it is not possible to make at frequent intervals a census of all employments it becomes necessary to resort to the sample method—i. e., to attempt to cover only a representative portion of the important industries of the State. The sample should be large enough for each industry and carefully selected so as accurately to reflect the changes in employment in the various industries from month to month.

In order to obtain the information promptly the collection must necessarily be done by correspondence on a questionnaire to be sent out each month. This requires the cooperation of the employers, and, to secure their cooperation and to reduce to a minimum the time and amount of labor necessary to furnish the data,

the questionnaire should be restricted to the essential information needed. The inquiries should include the number on the pay roll and the amount of the pay roll for a pay-roll period each month; also the percentage of full time and full capacity worked by the establishment each month. It is desirable that these employment statistics should be reported by sex when it is practicable to do so.

The industries to be included will, of course, vary from State to State in accordance with the extent and importance of each industry in each State. The data should be collected on the basis of a uniform classification of industries. The Bureau of Labor Statistics in its collection of employment statistics has followed in a general way the industry classification adopted by the Bureau of the Census. The items in this rather broad classification can be subdivided or combined to meet the particular needs of any individual State.

#### WAGES AND HOURS OF LABOR

Information regarding wages of industrial employees to be of value for comparable purposes, one State with another or one establishment with another, must be compiled on a comparable basis, by industry and by definite occupation.

As employees in different establishments, and also employees of different occupations in the same establishment, frequently work a different number of hours per day and per week, earnings of each employee should be obtained in such a way that they can be reduced to a uniform basis—i. e., to actual earnings per hour.

It is important and many times desirable to make a comparison of State data with those for the United States as a whole as compiled by the Bureau of the Census. Therefore the broad census classification of industries is recommended for adoption so that data for more detailed classifications when necessary or desirable to be made can be combined, if desired, and compared with census data.

Owing to the large money cost and the great amount of time and labor necessary to collect and tabulate pay-roll data and the limited funds generally available, it will probably be found impossible to cover all of the industries in a State, or all of the establishments in an industry; and it will also probably be impracticable to collect the earnings of employees for a whole year. If necessary to restrict the scope of the study the sample method is recommended—that is, that the surveys be limited, if necessary, to a representative number of establishments in each industry, and that information be collected for one representative pay-roll period of the year as a minimum.

Detailed information should be compiled separately by sex for employees of each of the principal key occupations at least, and in order that the survey may cover the wages of the establishments as a whole the occupations not considered of sufficient importance to be selected for a separate showing may be combined into a composite group designated as "Other employees."

In the case where information on hours only is being collected, as where factory inspectors secure data as to the hours worked, but do not enter into the wage question, such information should distinguish between the nominal or scheduled hours of the factory and the hours actually worked by the employees—that is to say, should note in each instance the overtime and undertime employment.

In the reporting of wage data it is of great importance that actual earnings be distinguished from rates, and in the reporting of hour data it is of equal importance that hours worked be distinguished from nominal or scheduled hours.

The following questionnaire [B. L. S. 277] used by the Federal Bureau of Labor Statistics is believed to embody the minimum information necessary for a satisfactory presentation of wage data. [See Wages and Hours of Labor Schedule.]

UNION SCALES OF WAGES

Union scales of wages for trades that are so well organized that their scales may be accepted as the prevailing rate in the trade in the locality can be readily secured through the various unions. From this source a large volume of wage

B. L. S. 977 1. Industry ..... 2. Agent .....  
 U. S. DEPARTMENT OF LABOR, BUREAU OF LABOR STATISTICS, WASHINGTON

Wages and Hours of Labor

- 3. Establishment .....
- 4. Local address .....
- 5. Person furnishing data .....
- 6. Department .....
- 7. Occupation .....
- 8. Pay roll for ....., ending .....
- 9. Hours each day: Monday to Friday ....., Saturday ....., Sunday ....., Total per week .....
- 10. Number of days worked by this occupation in this pay period: Sundays ....., Week days .....
- 11. If 7-day occupation, is regular relief: Provided ....., Observed ....., (If any, explain in note.)

11 (Leave blank)	12 OCCUPATION TERM ON PAY ROLL	14 NUM- BER	15 SEX	16 AGE (years and mos)	17 HOURS WORKED	18 HOURS PAID FOR	19 TIME RATE	20 EARNINGS	21 (Leave blank)	22 (Leave blank)
1										
2										
3										
4										
5										
6										
7										
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statistics can be obtained at a minimum of time and expense. For several years data of this kind have been collected very satisfactorily by several of the States and the plan is recommended for extension to all the other States. The form of questionnaire on page 17 [B. L. S.—424] is sufficient for the needs of this sort of data.

RESOLUTION

Your committee believes that the greatest advance step that this association can make at this time is the adoption of the principle of uniformity in the collection and compilation of industrial statistics. We therefore propose for your adoption the following resolution:

*Resolved*, That the Association of Governmental Labor Officials of the United States and Canada approve and adopt in principle, the foregoing report, and we,

D. L. 6-486

U. S. DEPARTMENT OF LABOR  
BUREAU OF LABOR STATISTICS  
WASHINGTON

RATES OF WAGES—UNION SCALE: MAY 15, 1926

1. City ..... 2. State ..... 3. Special agent .....

4. Industry ..... 5. Local Union No. ....

6. Occupation ..... 7. Sex .....

8. ....

9. Name, position, and address of person who furnished data for—  
a. 1925 .....  
b. 1926 .....

	1926	1925	May 15, 1926	May 15, 1925					
10. R .....									
11. E .....									
12. Regular rate per ..... of ..... hours .....									
13. Regular rate per ..... of ..... hours .....									
14. Rate for overtime (1, 1½, 2, etc.) .....									
15. Rate for Sunday (1, 1½, 2, etc.) .....									
16. Rate for holidays (1, 1½, 2, etc.) .....									
17. Rate for Saturday half holiday (1, 1½, 2, etc.) .....									
18. Regular working time .....	HOURS—								
	Days per week	Mon-day	Tue-day	Wednes-day	Thurs-day	Fri-day	Satur-day	Sun-day	Full week
	1926								
1925									
19. H. ....									
20. Number of months having Saturday half holiday provided by agreement .....									
21. .... 1925. .... 1925 (Name months provided by agreement)									
22. Hours on Saturday during such periods .....									
23. Number of union members in this occupation in this jurisdiction receiving—	a. Union scale .....								
	b. More than union scale (note amount received) .....								
	c. Less than union scale (note amount received) .....								
	d. Total .....								
24. Changes and date of each change from May 15, 1925, to May 15, 1926 .....									
25. Change and date of each change after May 15, 1926 .....									
26. Copy of agreement or scale sent: a. For 1925 ..... b. For 1925 .....									
27. This report is approved: .....									

the representatives of said association here assembled, do agree that hereafter we will so far as possible endeavor to collect and compile all industrial statistics along uniform lines as outlined in the report.

It is further recommended that the committee be continued until such time as it can work out a report on terminology and definition of terms used.

[The resolution was adopted.]

## REPORT OF CODE COMMITTEES (BY MR. AINSWORTH)

There are four committees to report; of one of these, the committee on building exits, I am not a member, and there is no member of the committee here.

The first committee is the committee on the conveying code. The American Engineering Standards Committee through the willingness of the National Bureau of Underwriters and the National Safety Council have started a conveying machinery code. This code committee has held three meetings and has definitely arranged its schedule. It will have to be adopted by the American Engineering Standards Committee.

Another committee whose work is going along fine is the committee on abrasive wheels. That code has been revised and the revision approved by the American Engineering Standards Committee.

Probably the most important code for the various States is the construction code. A meeting was recently held in New York City on this code in an effort to try to further enlist the assistance of the Association of General Contractors, which was represented on the committee for a number of years, then suddenly withdrew from the committee and put forth every effort possible to set aside the work done. The meeting in New York was successful in enlisting the aid of the contractors and work of the committee will now progress and be completed. It has been decided, however, to limit the work of this committee to building construction only and omit general construction work.

In the State of Pennsylvania construction accidents increased 25 per cent this month over the same period of last year. Such accidents are steadily increasing, and each State in the Union must work if we are going to make any gain. We have the solution in other industries, but construction work seems to have gone by the board and as a result accidents are continually mounting. I would suggest each State represented in the convention take an active interest in the development of our safety code for the construction industry. It is unfortunate that we have to pick one representative and that one representative can't get better expression of opinion from the association each year. I plead for every member of this association to keep in contact with Doctor Agnew. Another point which has been raised is the question of proper hearings on codes before they are adopted by the American Engineering Standards Committee. Many codes have been adopted by sectional committees alone and have not been referred to the public and when inspectors tried to enforce them found they have not been practical. A movement was started to introduce public hearings after sectional committees have completed the first work and turned it over to the American Engineering Standards Committee, but no formal procedure has been outlined. That will be done at the safety meeting this month. This is a very important point, introducing the code to the industry before you start to enforce it, giving them a chance to get acquainted with the code and letting them have an opportunity to try it out and talk it over with you before you start to enforce it. Your enforcement problem is made much less difficult.

[The report was adopted.]

**TUESDAY, JUNE 8—AFTERNOON SESSION**

**MARY ANDERSON, DIRECTOR UNITED STATES WOMEN'S BUREAU, PRESIDING**

**WOMEN AND CHILDREN IN INDUSTRY**

The **CHAIRMAN**. I am going to begin on the program immediately, and I am going to call on Miss Mary Van Kleeck, director department of industrial studies, Russell Sage Foundation, New York.

**EFFECT OF LABOR LAWS UPON WOMEN IN INDUSTRY—A PROBLEM FOR INVESTIGATION**

**BY MARY VAN KLEECK, CHAIRMAN OF TECHNICAL COMMITTEE ON METHODS OF INVESTIGATION FOR THE WOMEN'S BUREAU, UNITED STATES DEPARTMENT OF LABOR**

The effect of labor laws upon opportunities for women in industry is the subject of an investigation recently undertaken by the Women's Bureau. It offers one of the frequent opportunities for cooperation between the State and Federal departments of labor. On this occasion it is the problem involved in working out the method of study which is to be presented in the hope of eliciting advice and suggestions from members of this association.

In order that you may have the background it is necessary to discuss a conflict between a group of feminists who object to labor laws for women and a group of wage-earning women and others who favor them. It was not a feminist but a judge in a New York court who discovered a connection between women's rights and labor laws for women. When the New York law prohibiting the employment of women at night in factories came before the courts nearly 20 years ago for decision as to its constitutionality, the judge who wrote the opinion declared that one of women's rights was the right to work when and where she pleased without reference to the position of the hands on the dial of the clock. I do not recall that his reasoning made a wide impression upon the public mind. To be sure for some seven years thereafter women were the equals of men in having the right to work at night in New York factories until the factory investigating commission, appointed in 1912, found conditions which, in its opinion, demanded correction in long hours of work for women in cordage plants, in binderies, in laundries, and in other work places. The new law which the commission recommended, guaranteeing a period of rest at night for women, was upheld by the court, which thereby reversed its earlier decision.

At that time the advocates of women's rights were busy trying to secure the vote. Not until after the war and after the passage of the nineteenth amendment did an organization of feminists, casting about for new work on behalf of women, find in labor legislation an issue to be joined. As a result your work as enforcers of labor laws stands challenged to-day, for the laws themselves are regarded by

one group as a mark of women's servitude. At any rate it became a major plank in the platform of the National Woman's Party to oppose all labor laws which apply to women only.

But the challenge is healthy. In itself it reveals a weakness to which labor legislation has long been exposed. Public interest is great before a law is passed, but it is not sustained long enough either to provide adequately for its enforcement or to watch its results. Hence it seems appropriate to-day to discuss the proposed investigation of the effects of labor laws for women which the Women's Bureau is making. The main point for consideration on this occasion is not whether labor laws have good or bad effects but how the effects should be measured. It is the method of the investigation, not its conclusions, which needs consideration by governmental labor officials at this time.

The investigation was proposed at the women's industrial conference, called in Washington in January, 1926, by the Federal Women's Bureau. It was on that occasion that the conflict over labor legislation for women reached a climax. Representatives of the National Woman's Party brought in a resolution asking for an investigation of the effects of special legislation upon the employment of women, and added a request that while this investigation was in progress the Women's Bureau should refrain from taking any position with reference to the so-called equal rights amendment which had been before Congress recently. It was this second part of the resolution which the representatives of the National Woman's Party frankly say they were most eager to have passed, because they have found that testimony growing out of the extensive investigations made by the Women's Bureau has been an obstacle to gaining support for the equal rights amendment. Constitutional lawyers believe that to incorporate this amendment in the Constitution would jeopardize all labor laws and other social legislation applying to women and not to men. Opposition to the amendment has not come only from advocates of labor laws for women but has been based also upon the idea that an amendment would make it impossible to experiment with laws which might change from time to time to meet changing conditions.

The conference was unwilling to pass a resolution asking the Women's Bureau to take no position in this matter. It was pointed out that information gathered by any Federal bureau and the personal opinion of any Federal officer should be at the disposal of Congress in its consideration of any legislation, and that it would be inappropriate for a group of private citizens called together by the Women's Bureau to pass a resolution of this kind. As a substitute a motion was made suggesting the investigation and providing for a committee representing both sides in the controversy which would give advice regarding the scope of the investigation. This resolution was adopted.

The director of the Women's Bureau proceeded without delay to act upon the suggestion, and an advisory committee was appointed composed of six members, three of whom were nominated, respectively, by the American Federation of Labor, the National Women's Trade Union League, and a committee of representatives of 11 organizations opposed to the so-called equal rights amendment. These three members of the advisory committee were the representatives

of those who support labor laws for women. The National Woman's Party, as the one large women's organization which opposes labor legislation for women, was asked to nominate three members. Meanwhile the technical committee, appointed to advise the Women's Bureau regarding the methods of its various investigations, was called into action to assist in planning this study. Those of you who come from States having industrial commissions will recognize the resemblance of the advisory committee of the Women's Bureau to the advisory committee for an industrial commission. The industrial commission includes the experts; the advisory committee represents employers and labor, thus giving a chance to opposing groups to make sure that their interests are fairly treated.

Unfortunately the advisory committee of the Women's Bureau proved to be a group which could not be held together. The conflict over the method of inquiry became so great that the three organizations which named the representatives of women favoring labor legislation instructed their representatives to withdraw. They declare in their withdrawal that the procedure adopted by the representatives of the National Woman's Party in the committee made it impossible for the advisory committee to function. The party's representatives wished to concentrate on investigation of laws prohibiting night work, and they suggested that the method of the inquiry be the holding of public hearings. The representatives of working women contended that public hearings were not the best method of inquiry, that wage-earning women called to testify might be in danger of losing their jobs if they expressed views contrary to those of their employers, and that in a study of this kind it was necessary to get the facts from records and from interviews rather than at public hearings. As this was a problem in method rather than in scope it came properly to the technical committee, and it was arranged that a joint meeting should be held by the technical committee and the advisory committee to explain to the members of the advisory committee why certain decisions regarding procedure had been reached by the staff of the Women's Bureau with the advice of the technicians. Before this meeting could be held, however, and before the plan of investigation outlined by the bureau was submitted, representatives of the National Woman's Party undertook a campaign tending to persuade Congressmen, particularly members of the Committee on Appropriations, that the Women's Bureau was partisan and that the proposed investigation would be unfair unless public hearings were held with opportunity given to representatives of the National Woman's Party to cross-examine witnesses.

Finally, after a subsequent joint meeting, the representatives of the three organizations favoring labor legislation, acting on instruction from their organizations, resigned their membership. The reasons were stated by the representative of the National Women's Trade Union League in the following words in a telegram to the Director of the Women's Bureau:

We refuse to remain longer on committee with National Woman's Party in view of latter's impossible demands and intolerable conduct in continued attempts to discredit investigation in advance and by political pressure to coerce Women's Bureau in becoming virtual publicity agent for Woman's Party. We asked in good faith for a real investigation of a vital industrial problem affecting millions of working women; that means technical study by experts and by scientific methods. Woman's Party, which does not represent working women at all but

women who never had to work for a living, does not want scientific investigation but public hearing and a forum for its speakers. Working women who advocate labor laws and need them could not testify at public hearings without risk of losing their jobs; thus hearings would not bring out facts but only one-sided opinion and resulting injustice to working women, which we refuse to countenance.

The withdrawal of these three members left the advisory committee with but one side represented. As the resolution appointing it had provided for representation of both sides, the committee was disbanded when one side withdrew. It should be noted, however, that the work contemplated for the advisory committee had been substantially accomplished. Four meetings had been held and suggestions regarding the scope of the inquiry had been made by the members, both in writing and in general discussion. A number of these suggestions from both sides had been embodied in the plan.

Meanwhile the investigation is going forward and is likely to be one of the most important and significant of all the studies made by the Women's Bureau. On this occasion we are concerned, as I have said, not with the question of whether or not legislation for women has been an advantage or a disadvantage but we have to consider the much more difficult question of how to measure its effects. We are not without information. Factory inspectors who administer the law know some of its results. Presumably the weight of experience of many years is in favor of it, since labor laws have been passed and amendments adopted year after year with very few repeals. Moreover, many investigations have been made, including those published by the Federal Women's Bureau and by bureaus of women in industry in State departments of labor, which throw light on the present conditions and show by inference the effect of labor laws. Nevertheless a specific study of the effects of labor legislation has not been made, and so the question of how to determine its effects is a new one in investigation.

Actually it is necessary to use different methods for different types of law. It seems obvious that the first effect of a law, provided it is enforced, is presumably to establish the conditions which the law prescribes. If, for example, a State legislature enacts legislation prohibiting the employment of women in factories at night, presumably its effect will be that no women will be found in the factories at night. Similarly, if a law prohibits the employment of women on machines having emery wheels for grinding and polishing, the effect will be to keep women out of that occupation. The problem here is to measure in the large the results of excluding women from employment under certain specified conditions which have been considered to be harmful in their essence and hence not susceptible of regulation.

On the other hand, a law like that limiting the employment of women to a definite schedule of hours in a day regulates a condition; it does not constitute a prohibition nor does it result in debarring women from an occupation provided the conditions required are established. The problem here is to find out whether the reduction in hours of work has in the long run resulted in better conditions or larger opportunities or whether it has tended to bar from employment the group for which these conditions are established.

This distinction was back of the contest over method which developed in the advisory committee. Representatives of the National Woman's Party wished to demonstrate that labor laws applying only

to women bar them from opportunities, and they asked that the whole investigation be centered upon the prohibition of employment of women in factories at night. Representatives of wage-earning women, on the other hand, contended that laws shortening hours of work applied to a very much larger number of women, and that by improving the conditions of employment they have tended greatly to enlarge women's opportunities by the protection of health, the increase of efficiency, and the development of greater skill.

In the last analysis the arguments of representatives of the National Woman's Party were that the principle of legislation applying to women only is bad, that it establishes an inferior status for women and has the psychological effect on everybody's mind of making women appear to be inferior.

Much discussion and consideration on the part of the staff of the Women's Bureau has been necessary to develop a plan of investigation which would throw light on all these diverse contentions. At this moment the plan is tentative and is open for suggestion. It seems to the staff of the Women's Bureau that the center of the whole inquiry is to be found in an analysis of change in the position of women in industry during the period of development of labor legislation. What new occupations have been opened to women? What changes have occurred in the occupations which have always been theirs? From what occupations have they been barred? What are the causes of these changes? If labor laws have either restricted or enlarged opportunities for women, we should be able to discover that fact if we analyze the industries and the positions in which changes have actually occurred. We can discover more or less satisfactorily from the records of the census the industries in which the proportions of women as compared with men have changed. It should also be possible to discover from records in factories what changes have occurred in the proportions of men and women in various occupations. Interviews with managers and with women employed should then reveal the circumstances under which these changes took place. Were there changes in machinery, or in marketing conditions, or in the general process of work, or in methods of management, or in legal regulations of women's work which could account for the change?

It seemed plausible at first to begin with the statistical records and then hold the interviews, but the difficulty, familiar to all of you, is that most establishments keep no records over a long period of years; and it is always difficult to secure from pay rolls the data showing the number of men and the number of women in the different occupations of the industry. The pay roll is not always divided by occupations, nor is it always clear from the pay roll record which employees are men and which are women.

The method, therefore, had to be reversed. The chronology of labor laws in every State has been recorded in the Women's Bureau in such a way as to show the exact date of passage of every law and of all important amendments. Taking this chronology, representatives of the Women's Bureau are proceeding through interviews with managers of industrial plants, with woman wage earners, and with factory inspectors to find out what changes they recall in the employment of women and at what period, and what factors or circumstances entered into the change. In plants which are operating at the

time of passage of any labor law for women information is sought in interviews as to what adjustments were made in the plant to meet the new conditions established by the law. Following these interviews, efforts are being made to secure whatever statistical record may be available in that plant, through the records of factory inspection or in the United States census, whereby the statements made in the interviews may be verified or corrected. By these methods it is hoped that we shall be able to discover not only what changes have occurred but what factors have entered into the changes which have been advantageous or disadvantageous for women. We are concerned, in short, not merely with discovering whether women have been barred from employment, but we wish to find out under what circumstances they have attained larger opportunities or improved conditions.

Thus the plan now tentatively adopted by the Women's Bureau provides for a study focused upon laws prohibiting night work and those regulating daily and weekly hours, with an analysis of those laws which prohibit employment in certain specified occupations. Regulation of sanitary conditions and other similar legislation is also of interest, but, generally speaking, these laws do not apply only to women and it seems best to concentrate upon those which affect hours of work, since they are the center of controversy. In view of the fact that it is impossible to study every industry and every State in the Union, the bureau is also meeting the question of how best to select samples. Those trades are chosen first for study in which the census shows changes in the proportion of women employed, those in which the proportions of women are large, and those in which women's work is very much limited in comparison with the employment of men. In all the sampling the controlling principle is to make the selection on the basis of the proportions of women employed in comparison with men.

Again it is necessary to choose not only the industries but the States in which those industries will be studied. Here, also, contrast in conditions is desirable. Take, for instance, the electrical industry, which is new and which shows rapid changes in technique. It is possible to study the same industry, and sometimes the same company, in Massachusetts with its eight-hour law, in Indiana which has no limitation on daily hours, but has a law prohibiting night work, and in Illinois with a 10-hour law and no limitation on weekly hours. By comparing conditions in the same industry under the same general management in three different States having different types of legislation, presumably an answer can be found as to what the effect of labor laws may be upon the employment of women.

Having selected the industry and the State, local inquiry must reveal which are the typical establishments. In addition to those in which women are employed, the staff of the Women's Bureau, to make its study more comprehensive, is including in each State studied an inquiry into opportunities which might exist for women's employment in those plants which do not employ them at present because they operate longer hours than the State law permits for women. Agents of the bureau are finding out in these plants what adjustments would have to be made in their employment to meet legal requirements and what opportunities would exist for them if they were not included under the law. In like manner, in States having

prohibition or limitation on night work, plants which have night shifts are surveyed. These employ no women (unless in violation of law), and the agents are asking what women's occupations on the day shift are actually filled by men at night and whether the plant would employ women at night if the law permitted.

Many minor details are difficult in planning the whole investigation. It might seem a simple thing to measure the proportion of men and women in a given industry, but it is necessary to decide whether this is to be measured by counting the number of employees at a given pay-roll period, or whether the average number throughout the year should be considered, or whether one should choose a busy week and a slack week in a year and figure the average in order to determine the proportion of women in the working force. A detailed count of numbers in the different occupations or departments in a plant is being taken only if interviews reveal significant changes requiring detailed analysis.

Investigators must also envisage conditions in the community. It is important to interview citizens who have had a vital interest in supporting or in opposing labor laws. Moreover, in studying the conditions which make for larger opportunities for women in industry one must take into consideration opportunities for vocational training in the public schools and what effects they may have had, the effect of trade-union organization upon conditions of employment of women, and the general state of public opinion and the way in which it affects women's opportunities. The inquiry, with all its ramifications, is endless, but the important point in working out a sound method is to keep the investigation focused upon the right center—in this study, changes in the opportunities for women, either adverse or favorable—and then to select for detailed study only those situations which require it in order to answer fully the question, "What has caused the change?"

I shall not take the time to give you the complete schedule. An effort has been made to keep it as simple as possible. The main points asked for are the types of products now being manufactured and the length of time that the firm has made these products; the scheduled hours at present for men and for women and the hours formerly worked; changes which were necessary to meet the requirements of the last State law regulating hours of work for women; the extent of overtime and its effect on women's opportunities; changes in plant equipment, working conditions, and occupations, which have affected the proportionate employment of men and women, with reasons, date, and effect—including changes in the product, in machinery, in occupation, in methods of operation, in women's work hours, in men's work hours, and any other changes.

Questions are also asked as to whether women are in supervisory positions, how many women are employed in them, and what the policy of the firm is regarding promotion. Closely connected with policy regarding promotion is the method of selecting for employment and the plan of training. The extent of trade-unionism in the plant is also included, the provisions of the agreement, if there be one, the departments covered, and whether both men and women are members.

This inquiry, planned thus carefully, should give an answer or at least suggest a method of approach to the present controversy as to

the desirability of labor legislation applying to women only. Surely the answer is exceedingly important for all State departments of labor. It is hoped that while this investigation is in progress the Association of Governmental Labor Officials will be continuously interested in it, and that in the various States the departments of labor will give what aid they can in an analysis of statistics of change in plants as they are shown in the records of factory inspection and in any other data as to the effects of the law in each State included in the inquiry. The study can not be absolutely complete or final. Labor legislation is experimental and probably we must proceed to meet conditions as they are and be willing to change as conditions change. Perhaps the best result to be hoped for from the study will be that it should lead thoughtful persons to realize that controversy must be settled by facts, and that the actual opportunities for women in industry and the conditions of their employment can be discovered by investigation.

### DISCUSSION

Miss JOHNSON. It is very gratifying that the Woman's Bureau is making this investigation and employing methods as described. Personally it seems to me there should be little question as to the need or advisability of special legislation for the protection of working women to-day. But there is need for information as to the effect of that legislation and to the type of legislation which is necessary. There is very little scientific information as to the effect of such legislation. The State departments responsible for enforcing the laws as they have been enacted have quite naturally devoted their time to enforcing and administering rather than to studying the operation to ascertain the effect of the law, and very few States are equipped to do that, with the exception of New York and Pennsylvania through their special research bureaus. I hope one of the direct results from this study which the Women's Bureau is making will be to stimulate interest on the part of States to have more research work with regard to the effect of legislation. I should think it would be helpful also in educating the public and meeting some of the arguments based on misrepresentations and prejudice to present some of the facts. It seems to me that it should also give another contribution and that is assurance that legislation for the protection of women will keep abreast with industrial changes; that the laws that are enacted by States shall represent most expert thought and latest development. That type of legislation is very important, and it is essential that the laws enacted shall afford protection to the women who are unable to control conditions under which they work; at the same time they shall not restrict opportunities of women—women who are in position to have opportunity to control their working conditions through business or professional training. That is another result which I think can come from such a study. I think it is very gratifying that women are making this study, and I feel sure that the investigation will be continued in a very fair and impartial and scientific way and manner, and I think it will be very interesting.

Mr. LANSBURGH. In listening to the list of questions as given by Miss Van Kleeck, I noticed she did not enumerate all the questions.

I was struck by the absence of the type of questions which in general asks the employer why he maintains conditions better than that provided for in the law. For instance, in Pennsylvania we have the 54-hour law; now only a very small fraction of women work 54 hours in Pennsylvania, so most of the answers to the question, "What effect has the 54-hour law had?" must necessarily be, "There was no effect." But, on the other hand, it seems that much valuable information might be secured on why certain industries work 54 hours whereas others work only 48 hours. Possibly those questions are included; they seem to me important.

Miss VAN KLEECK. I think it is very useful to have that brought out, but it is true that the question addressed to the employer as to when the hours were changed doesn't refer only to changes due to the labor law. He is asked whether he made a change of his own volition, how his hours compare with the hours set by law. Presumably the investigator will go on with that. I think it is very useful to go on with it. They will proceed to ask not only "Were your hours changed by the law?" but "When your hours were changed how did it happen?" The investigator also has very liberal instructions to follow out to get further information.

Mr. MEADE. I think it would be very interesting to know just what laws are to be looked into. I didn't hear Miss Van Kleeck mention minimum wage law. I wonder if the inquiry will include that; if so, I would be very glad to know how it is done.

The CHAIRMAN. We have for the last two years been investigating the minimum wage law. Of course we recognize the last decision of the Supreme Court will render obsolete the minimum wage law in any State in the Union where it is brought up before the court at this time. The last decision of the Supreme Court of Arizona was to throw it out of court because the decision of the District of Columbia applied to Arizona, which of course means that no minimum wage law in any State, with the exception of Massachusetts, where the minimum wage is not mandatory, is constitutional according to the United States Supreme Court. That may mean that any time the law is brought into court, even a State or district court, it will be declared unconstitutional on that ground. Now the States are enforcing the minimum wage law, but of course they don't know just how soon a case will be brought into court and the law declared unconstitutional, but the minimum-wage question will be taken into account in the investigation.

If there is no more to be said on this subject we will go on to the next. I take great pleasure in presenting to you Dr. E. R. Hayhurst, of the Department of Health of Ohio.

### INDUSTRIAL HYGIENE<sup>1</sup>

BY EMERY R. HAYHURST, M. D., CONSULTING INDUSTRIAL HYGIENIST, PROFESSOR OF HYGIENE, OHIO STATE UNIVERSITY, CONSULTANT STATE DEPARTMENT OF HEALTH, ETC., COLUMBUS.

It may truthfully be said that the subject of industrial hygiene has come naturally to the writer who has specialized in preventive medicine. This is because I once spent some 10 years of my life, viz,

<sup>1</sup> Adapted from Doctor Hayhurst's monograph on "Occupation and diseases of middle life" in *Diseases of Middle Life*, edited by Frank A. Craig, vol. 1, pp. 83-174, F. A. Davis Co., 1923.

between 1894 and 1905, in factory work, part of the time while attending school and college. This work was for the Norton Bros. Can Co. at Maywood (Chicago), Ill., which company became the parent plant of the American Can Co. along about 1899 or 1900. Later, after some years in hospital and dispensary work and private practice, the possibilities in industrial hygiene for developing greater output and less physical disability among workers appealed to me more and more until it assumed the aspect of an economic question of broad import and worth a life's work.

It should be known to the members of this convention that the pioneer effort in industrial hygiene in this country was made by C. F. W. Doehring in 1903, under the direct supervision of the late Hon. Carroll D. Wright, for many years United States Commissioner of Labor and no doubt well known to many of you. Mr. Doehring's full report on the first real investigation and fact-finding inquiry in this country is contained in United States Department of Labor Bulletin No. 44, published in January, 1903, under the title of "Factory sanitation and labor protection." Hence it is with the precursors of this body to whom I have the honor to speak to-day that this subject was actually pioneered.

In brief, industrial hygiene covers four major fields: (a) Dangerous trades; (b) health hazards—some fifteen in number—liable to be found in industries of all kinds; (c) occupational diseases and physical declines which result from the continued presence of such health hazards; (d) and the specialty of prevention and control.

This field, you will readily see, is so broad that only this brief citation of its scope is possible. If we pick one portion of it—e. g., the industrial health hazards—we discern the following possible exposures to a person at work: Fatigue; infections; poisons; dust; bad ventilation; bad illumination; heat; cold; humidity; aridity; caisson work; altitude work; electrical hazards; dirt, disorder, and general uncleanness; bad sanitary conveniences (toilets, water supply, and waste removal).

About two months ago I had the pleasure of talking over this subject in my office with your very excellent president, Mr. Witter, and we decided that concentration upon a single feature would be best for the present annual meeting and I chose the hazard of "fatigue," which I wish to develop, with your forbearance, from the point of view of the physiologist and the physician.

To understand the reasons for the prevalence of fatigue in industry we must look into the factors which underlie fatigue. These are of two general types: (1) Intrinsic, or pertaining to the individual himself and discovered by physical examinations, including a past sickness history, subjective symptoms, etc.; and (2) extrinsic, or immediately associated with the conditions of work. The extrinsic are discovered by an analysis of the given job and its environments.

The chief intrinsic or personal factors entering into fatigue are as follows:

(1) Food, its nutritional, energizing, and vitaminous character, and the hygiene of digestion and the digestive tract.

(2) Oxygenation of the food in the tissues, judged indirectly by the presence or absence of anemia.

(3) Circulation efficiency (cardiovascular status).

(4) Eliminative efficiency (the intestines, kidneys, lungs, and skin).  
(5) Disease conditions present (especially chronic infective foci of teeth, tonsils, gall bladder, appendix, lungs, accessory nasal sinuses, etc.).

(6) Abuse of stimulants and depressants (coffee, tea, alcohol, drugs, highly spiced foods, hot drinks, etc.), which (1) decrease the reserve capacity, (2) are often substituted by the worker for meals, and (3) benumb the sense of fatigue. Man needs a stimulant, but the normal physiological stimulant is to be regarded as the adrenaline produced by one's own glands.

(7) Lack of industrial interest, often engendered by anxiety and worry over outside affairs. Interest in the task at hand is undoubtedly the psychological stimulant for the production of adrenaline, and therefore greater physical and mental effort.

(8) Lack of skill. Newness to any work always causes a surprising amount of fatigue. Adaptation and skill soon overcome this, provided a stable nervous system be present. In the acquisition of true skill the avoidance of useless movements and strained postures is especially to be aimed at.

(9) Amount of rest. Defining rest as a state of relaxation between work efforts it is probably true that most work permits enough rest periods interspersed with effort periods to suffice. Some occupations do not. While Taylor found that in the operation of carrying pig iron rest periods should occupy 57 per cent of the time and actual work only 43 per cent, all strenuous labor has an optimum which is capable of discovery for the average worker by putting him on his own volition with a prize incentive (piecework, etc.). In general, rest periods should so interrupt work efforts throughout the day as to conserve full capacity and enable one to "quit fresh" instead of "so tired." This is the basis of the military day. It seems a good practical rule that if the meal following a work spell does not fully restore work capacity, then that work has been pathologically fatiguing. In some work, meals or light lunches must needs come every two or three hours.

(10) Amount of sleep. The middle-aged worker, who is in normal health, requires about seven hours' sleep (always at night time if possible) to meet his requirements. Earlier in life he has required eight or nine and he may find that as little as six and one-half or six hours is sufficient as he grows older, although aging ultimately demands more. Sleep is primarily the "rest period" for the nervous system. It is also the opportune time for taking advantage of fresh-air breathing which conditions of work so often prevent during the day.

The extrinsic factors leading to fatigue are, as a rule, much less important than the intrinsic, although often improperly considered the more important. This is because they are so much easier noticed and also much more apt to become the cause of complaint. I might go so far as to say that if all of the factors above listed for the intrinsic cause of fatigue are properly supervised, it is only exceptionally possible to fatigue the human body by the extrinsic factors, i.e., that the factors must have to exist in such plainly hazardous amounts (not necessarily plain to the ignorant) as to preclude much work effort under them. The chief extrinsic factors may be summed up as follows:

(1) Hard work; this is such a relative term as often to mean little. It has an empirical standing, not often one capable of estimation by scientific procedure or methods of precision. For the present the experience of the work group as interpreted by the trained observer must obtain.

(2) Night work; abnormal to the human being, who is in no sense a nocturnal animal and whose physical prowess reach a low ebb between the midnight hour and daybreak.

(3) Long hours; again a very relative question, but undoubtedly affecting mental workers less than physical workers.

(4) Piecework; a matter of adaptation and of skill and of properly interspersed rest periods—perhaps a rest interval as often as every 30 seconds in some processes. Since it furnishes a goal, it arouses interest, counteracts monotony, and substitutes a normal stimulant for what is too often the case abnormal and harmful stimulants.

(5) Rhythm; a feature which must be studied for and by the given worker and which undoubtedly when traversed only encourages the development of neuroses.

(6) Monotony; a purely relative question depending more upon the level of intelligence and ambition of the worker than the class of the work. What is plainly monotonous to one becomes irksome and is soon dropped, but the same process may prove absorbingly sufficient to another.

(7) Distractions; disturbances of all kinds, noise, vibration of floor or building; glaring illumination, interruptions, etc., these take their daily share of attention and therefore energy to meet.

(8) Forced inactivity; sedentary work, close eye work, etc.

(9) Forced postures; work requiring continuous fixed attitudes. Requires extra energy; also care in preventing deformities.

(10) Forced standing still; easily solved by providing seats to be used at the option of workers.

(11) Spurious seating; especially detrimental when the incorrect seating causes a slump or kink of the body and a "transverse abdominal crease," or when it interferes with circulation in the limbs. Often corrected by a lower seat or higher work plane. The writer contends that the slump posture is the most restful and requires less energy to maintain, similar to Doctor Amar's statement that the erect standing posture uses more energy as measured by the CO<sub>2</sub> output.

(12) Prolonged strain; this is undoubtedly the most important extrinsic cause of fatigue known and must be obviated by rest interruptions of sufficient time and relaxation to preclude abnormal fatigue substances in the tissue. Otherwise the workday and the output are greatly shortened.

(13) Abnormal ventilation conditions, especially overheated air when stagnant and humid; worse when polluted with noxious gases, fumes, or smoke.

(14) Sanitation provisions (toilets, drinking places, and laving places) inconvenient or uninviting; prompts constipation, disuse of water, and personal uncleanness.

(15) Long distance from home to work place, often with weather exposure; contributes much to the day's toil on the day's energy supply and must be reckoned in as part of the day's work.

*Criteria of fatigue.*—When do we know that the day's work is fatiguing? There are so many conditions creating the same symptoms of "tiredness" as fatigue that this question is difficult to answer in the individual case. In a group of workers it is easier. Here the criteria are the following:

- (1) General complaints of tired feeling at close of work periods.
- (2) Many health complaints; requests for time off; too many quitings.
- (3) "Fagged" appearance of numbers of workers.
- (4) Defective output; not necessarily decreased output except when measured by the week or month.
- (5) Lessened desire to work; disloyalty.
- (6) More precisely, the evidence, discovered on inspection, that many of the intrinsic and extrinsic causes of fatigue are present.

*The effects of fatigue.*—We look for the ultimate effects of fatigue in persons approaching mid-life and later. Chiefly to be mentioned are: Increased susceptibility to infections, particularly in the respiratory and dermatological systems; rheumatism, both acute and chronic; neurasthenia, associated in certain persons with neuroses (tailor's cramp, etc.) and oftentimes with hysterical manifestations. It is said that 74 per cent of industrial neuroses occur among expert workers. Frederic S. Lee suggests that since "pathological fatigue substances" are found in the blood and secretions in diabetes mellitus, there is a strong suspicion that fatigue bears a causal relationship to this disease when it appears in adult life. Cardiac disorders, such as "irritable heart" and the so-called "effort syndrome," are cited in early mid-life, principally when the worker undertakes a more strenuous physical task. A limited degree of anemia is another alleged symptom. Lee emphasizes "borderland ills" in general. Much evidence is reported on the relationship which fatigue bears to the causation of accidents.

One has but to look under the "etiology" of the various diseases discussed in a textbook of medicine to appreciate the oft-repeated statement that fatigue is a predisposing cause of the given disease under consideration. Accumulated fatigue in women is alleged to result in menstrual disorders, constipation, and digestive disturbances. As in overdoing physical culture, girls and women subjected to industrial fatigue are also apt to veer to the masculine type and prove physically less capable of performing the functions of motherhood successfully than their effeminately developed sisters. Statistics show that between 20 and 55 years of age working women have more illness than men, often losing twice the amount of time from this cause.

The sequence of events in fatigue may be summarized thus:

(a) Immediate results: Inaccuracy in execution; pottering; decreased enthusiasm followed by decreased morale; depression; health complaints varying in different workers according to their "weak points." In respect to the output itself there is noted an increase in defects (and in repairs necessary), although the quantity of output may not be affected.

(b) Results in the course of a few days or weeks: Incorrect attitudes, both physical and mental; careless output, loitering, often unappreciated by the worker; requests for time off; sick spells affect-

ing different workers according to their most vulnerable points; and, finally, the employment analysis shows an increased labor turnover.

(c) Results after years: Workers have changed jobs or dropped their regular trades "for something easier, although at less pay"; this is so common that in many industries with trades which should be of lifelong tenure but a comparatively few workers are found over 40 and a handful over 50 years of age. Here workers show definite physical deformities varying according to the stresses of their respective occupations, but chief among them are back, shoulders, foot, and leg afflictions of musculo-osseous types. A general condition of malnutrition may be present, but not necessarily loss of weight; there may even be a moderate amount of obesity, usually associated with some anemia. Decreased endurance, irritability, and changeable dispositions proclaim neurasthenia. They often show signs of premature aging. They have a marked loss of independence so characteristic of younger years and in its place either desultory, sheeplike submission, or a loquacious, gently bluffing nature with no stability. Physical examination invariably shows the presence of chronic diseases (circulatory, kidney, respiratory, etc.).

### DISCUSSION

The CHAIRMAN. I am sure Doctor Hayhurst would answer questions if there is anyone who wishes to ask something.

Doctor GRAHAM-ROGERS. I am interested in Doctor Hayhurst's paper, because it is so entirely new. The subject of "fatigue" is really new in industrial hygiene. I was very much surprised Doctor Hayhurst brought it out the way he did. While Doctor Hayhurst and I don't agree on some things, there is one thing I am very much interested in, and that is the statistics Doctor Hayhurst has that attribute a lot of those things to fatigue. I was wondering whether the doctor collected those from investigations he made as to fatigue.

Doctor HAYHURST. Well, you would acknowledge that all of those manifestations are those of fatigue, would you not? The point is in the given worker—are they a result of work or diseased condition in his body? And that is a matter of physical examination to determine in any given case. In a given case you can not tell; I think I have made that plain. In a group of workers, with any condition running above the average, why you have a very great inference, which is something worth investigating, and I have tried to speak of fatigue in the group sense.

Miss SCHUTZ. I would like to ask Doctor Hayhurst in regard to the noon-hour lunch period. We have a law that requires an hour for lunch for woman employees, unless the commissioner of labor permits a shorter period. Of course as with all our labor legislation some of our laws are unpopular with the women. They don't always want to work shorter hours; they want to be permitted to work longer hours and earn more money. The consensus of opinion is they should work shorter hours. In our State our policy is to send the investigator to the establishment from which the request comes for a half-hour lunch period and ask the girls whether they want half hour or hour lunch periods, and what the facilities are which enable them to get their lunch readily. We are issuing lunch permits on that basis. My own conclusion is an hour, or at least 45 minutes,

ought to be required for lunch periods. I think there is quite a divergence of opinion. I should like to ask Doctor Hayhurst what he thinks about it.

Doctor HAYHURST. Perhaps I can answer it this way: In one case they permitted office help and others one hour lunch; they put it up to the labor group as to whether they wanted one hour or half an hour. One of the individuals representing the men who were engaged in heavy work in unloading black clay from cars said he would prefer half an hour for lunch; that was long enough to eat; he said he found in heavy work they got stale if they took more than a half hour, and they couldn't get back in the swing again. The British investigators have been paying attention to that situation. I wouldn't want to go on record, but I believe that the manual laborer needs less time because of that than the mental laborer.

Miss SCHUTZ. I would like to hear from some of the rest of the delegates here who are interested in the lunch-hour question; it seems to me it is a subject of great interest.

Mrs. GULICK. I would like to say that we have practically that same rule in our State, but upon a petition of the woman workers we grant a shorter lunch period. We investigated and know the workers want a shorter period before we grant it. It is not at the request of the management. Before the session closes I want to get the viewpoint of people of different States in regard to a condition in our State. We have an eight-hour law for some occupations, and a nine-hour law for some, and I am wondering if it is better to have a basic day or basic week of so many hours and not distinguish in regard to occupation, and before this session is over I want advice on that question; this will come up at our next legislature. The lunch period we have is 45 minutes; very few have 30.

Mrs. SWERT. We have that same condition in our State; our statute provides for an hour, but we may grant less. For a time we did grant these special orders, and usually on the request of the women, because they could get away earlier. We looked into conditions under which they could get lunch. We decided it did not work very well, because if one firm heard another had permission, they would take it without permission. We had hearings on it and asked physicians about it, and every one of the physicians told us not to grant a half hour; they told us an hour was better, and they agreed with Doctor Hayhurst that mental workers needed longer time than manual workers, but half an hour wasn't long enough even for manual workers; that we shouldn't go below 45 minutes. We do permit 45 minutes on condition that they have a lunch room adequately equipped, but we didn't have a leg to stand on in those investigations we made. Maybe those same physicians might change their mind, but at that time that was their opinion. That is one of the hard problems in connection with the half-hour lunch period, to put it into vogue, because you nearly always have the objection of the girls.

Mrs. WEAVER. Whenever the lunch question is up I always ask the other women visitors what they are doing about the problem of lunch rooms. If no lunch room is provided you must give one hour, but it is exceedingly hard to enforce. You will have probably small factories in the down town district where there is a restaurant, and it works a hardship to require an hour at noon. I find most of the

women prefer half an hour. I find they nearly always change their clothes to go into the factory, and they will not change them at noon, and they keep in their same factory surroundings just that much longer if they have an hour at noon.

Miss SCHUTZ. It seems to me sometimes the girls get more rest at noon from staying in the factory than going out. I know from my own experience that I have more rest by staying in the office than I do when I go out at noon and shop madly. When I get back I am always tired. I think my experience is common with that of the factory girl. If they rush around to change their clothes, get their lunch, and get back, and change their clothes again in an hour they are exhausted.

Miss JOHNSON. I would like to ask Doctor Hayhurst how he feels about lunch periods. The Massachusetts law regarding lunch periods establishes 45 minutes for women in manufacturing and mechanical establishments, factories, and office work, but does not apply to mercantile establishments; also many large stores require an hour, and on days when they are having special sales the girls are sometimes kept at the counter with not even time to go for lunch, but are simply given box lunches in such instances. Is it essential to have a definite period for lunch in cases where women are working in mercantile establishments?

DOCTOR HAYHURST. I think the whole subject of woman employees is subject to different analysis with respect to noon lunch hour. I am sure Dr. Graham-Rogers would agree that there is much more illness among women between 15 to 40, working age, than in men, and we learn from our insurance statistics and in our governmental statistics that the rate of tuberculosis is very much higher among female workers than the male working group, so that I believe more dispensation should be allowed to the woman laborers. We have another angle of this subject; of late we have been hearing so much talk of the beneficial effects of the outdoors, particularly sunlight, upon health. It would seem advisable not to reduce the noon hour to less than 45 minutes. There is an educational phase that goes with it, it seems to me. I quite agree that the girls in clerical work lose more energy during the noon lunch hour than they gain by running around shopping, etc. There is an educational phase that ought to be made part of the program. I should be inclined to think that in the mercantile establishments—because usually stores are overheated—it would be better to give them an hour in that line of work. I don't want to discriminate against the men doing manual work. It must be modified by the actual facts in the case, that there is much more consideration to be given to the women than to the men.

The CHAIRMAN. The next item on the program is the report of the committee appointed at the last meeting, and Miss E. N. Matthews, of the Children's Bureau, United States Department of Labor, is going to make that report.

#### REPORT OF COMMITTEE ON INDUSTRIAL HOME WORK

At the convention of the Association of Governmental Labor Officials, held in Salt Lake City in June, 1925, the following resolution was adopted:

*Resolved*, That a committee be appointed to look into the question of industrial home work, the extent to which such work is conducted in the various

States, and the methods being taken to deal with the situation, such a study to be made in cooperation with the United States Children's Bureau and the United States Women's Bureau and report to be made to the next convention of the association."

The committee was appointed in February, 1926, its membership being as follows:

Mary Anderson, Director Women's Bureau, United States Department of Labor; Charlotte Carr, director bureau of women and children, Pennsylvania Department of Labor and Industry; Ethel M. Johnson, assistant commissioner Massachusetts Department of Labor and Industries; Nelle Swartz, director bureau of women in industry, New York Department of Labor; Charles H. Weeks, deputy commissioner, New Jersey Department of Labor; E. N. Matthews, director industrial division Children's Bureau, United States Department of Labor, chairman.

The members of the committee have been able to meet only once, having conferred for the most part by correspondence.

As only a brief time intervened between the date of the appointment of the committee and that of the next annual meeting of the association, and as neither the Women's Bureau nor the Children's Bureau of the United States Department of Labor was in a position to undertake an investigation of the sort called for in the resolution, the scope of the committee's inquiry was necessarily limited chiefly to the assembling of such information on the subject as could be obtained by the committee members for their respective States and by the chairman through correspondence with officials in other States.

The first act of the committee was to draw up a brief questionnaire, the form of which was agreed upon through correspondence, to send out to State labor officials. To supplement the material to be obtained from the questionnaires, information on the laws affecting industrial home work in the United States was furnished by the Women's Bureau through its publication No. 40, "State Laws Affecting Working Women," and a compilation of the most important published material on industrial home work in this and other countries was undertaken by the Children's Bureau, special care being taken, in view of the needs of the committee, in collecting references relating to methods of administering home-work laws in the various States and in foreign countries and the effectiveness of the methods in use.

In addition, it was thought advisable to inquire of certain of the national organizations and research agencies which were likely to be interested in this subject as to whether reports on the subject were in preparation or in press and whether research was under way in this field. Inquiries have therefore been sent to the American Association for Labor Legislation, National Child Labor Committee, National Consumers' League, National Women's Trade Union League, Russell Sage Foundation, and a few local agencies and individuals. Replies to these inquiries have indicated that practically no studies of the home-work problem are at present under way except such as the State labor departments are making (in New York and Pennsylvania, for example) in connection with the enforcement of the State laws regulating industrial home work.

The questionnaire addressed to the State officials was sent to 45 States—all except Arizona, Idaho, and New Mexico, States which had no State department intrusted with factory inspection.

The questions asked were as follows:

1. What kinds of industrial home work are carried on in your State, and how extensive is your industrial home-work problem? Please specify the different kinds of home work in the order of their importance, and if possible give approx-

imate figures as to the number of employers who give out home work and the number of homes in which such work is done.

2. Do any reports of your department contain information on this subject? If so, please give references and send copies of the reports if available.

3. Has your department any unpublished material on this subject? If so, could it be made available for the use of the committee?

4. Has any information on this subject for your State been collected by any other agencies; and if so, where can it be obtained?

5. If no information on this subject is available, will it be possible for your department to make a brief survey of the situation within the next month or six weeks? (This suggestion is made because in many States, especially where there are no laws regulating industrial home work, the extent of home work, and even the fact that it exists, is not known even to persons in close touch with labor conditions.)

6. To what extent is home work sent into your State by manufacturers in other States? Please specify what kinds of work are received from each State.

7. What legal regulations exist in your State affecting industrial home work in any way, especially with reference to the employment of women and children in such work?

8. What is your opinion as to the effectiveness of these regulations?

9. What would you suggest as the most effective type of regulation on this subject?

Replies have been received from 39 States.<sup>1</sup> More detailed reports have been received from the four States represented on the committee and from Wisconsin than from the other States.

In regard to the information furnished to the committee by the State labor officials a brief statement is all that is possible here. Although much interesting information is contained in the letters in reply to the questionnaire and also in reports accompanying some of the letters, they are unfortunately too long to be presented in detail, and too long also I fear to be printed as an appendix to the report. A few copies of the letters received from the States have been made, and these the committee will be glad to lend to any member of the association interested in seeing them.

Answers to the questionnaire indicate that except for sparsely populated agricultural and mining States industrial home work of some sort is to be found in almost every part of the country. Specific information on the extent, kinds, and conditions of home work (question 1), however, is reported as not available in most of the States, and complete information on these points can not be said to be available for any State. Except from a very few States nothing was learned as to the extent of interstate shipment of goods to be worked on in homes, information regarding which was requested under question 6.

The committee was gratified at the response made to the inquiry in regard to the possibility of surveys by the State departments. Officials in 10 States reported that they had completed or had under way inquiries as to the home-work situation in their States. In most of these States the staff of the labor departments is very small, so that the willingness of the department to undertake such an inquiry is most gratifying. On the other hand, officials of a number of the States for which no information was available reported that they were not able to make such an inquiry, in some cases because the staff of the department was inadequate to undertake it, in others because in the absence of any law regulating home work the department did not consider that such a survey was within its province.

Inquiry 7 of the questionnaire, it will be remembered, had to do with the extent and nature of legal regulation. Replies to the questionnaire and examination

<sup>1</sup> The States from which replies have not been received are Connecticut, Florida, Georgia, Mississippi, North Dakota, and South Carolina.

of the laws of the various States show that 14 States have some sort of regulation of industrial home work.<sup>2</sup> These are California,<sup>3</sup> Connecticut,<sup>4</sup> Illinois, Indiana, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Ohio,<sup>4</sup> Pennsylvania, Tennessee, and Wisconsin.

In general, these regulations relate to cleanliness and sanitary conditions of the work place, to freedom from infectious and contagious disease, and (less commonly) to adequate lighting and ventilation and number of cubic feet of air space to be allowed per worker. In most of the States a license or permit must be obtained from the State authority enforcing the labor laws, either by the worker (Maryland, Massachusetts, Michigan, New Jersey) or by the employer or person giving out home work (California,<sup>5</sup> Indiana, New York, Pennsylvania, Wisconsin), this license indicating that the standards of the law have been met.

Observance of certain of the standards of the labor laws relating to women and children is sometimes made a condition of the issuance and holding of a permit to give out home work. Inspection is relied upon as the method of discovering whether the standards set by the law are continuously complied with.

In California, Maryland, Massachusetts, Michigan, Missouri, New Jersey, New York, Pennsylvania, and Wisconsin (and perhaps in other States by administrative practice) the employer is required to keep a register of the persons to whom home work is given by him, containing their names and addresses, and in some States certain other information. It is usually stated that this register shall be accessible to the inspector. In Massachusetts this register must be sent monthly to the State labor department; in Pennsylvania it must be sent to the labor department quarterly.

Answers to questions 8 and 9 ("What is your opinion as to the effectiveness of these regulations?" and "What would you suggest as the most effective type of regulation on this subject?") were on the whole disappointing. The most significant information yielded was that no uniformity of opinion existed as to the best method of regulation even where there was a recognized industrial home-work problem and where regulation existed.

In brief, the information obtained from the State labor officials and other sources leads the committee to the following conclusions in regard to the two matters it was especially instructed to inquire into—the extent of the home-work problem and the methods of dealing with the situation that are in effect.

First. As to the information available regarding the extent and conditions of industrial home work in the United States at the present time:

1. Industrial home work is without question a live problem in many sections of the United States.

2. In most localities in which it has arisen, serious evils have been found to follow from its practice.

3. However, information as to its prevalence, the numbers and kinds of workers engaged in it, the conditions under which the work is done, the industries affected, and the interstate aspects of the problem is either lacking entirely or admittedly inadequate in many sections of the country, even in States where the existence of home work (at least in some industries) is known to the State authorities, and even in States where the existence of a home-work problem has been recognized in the enactment of prohibitory or regulatory legislation.

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<sup>2</sup> A detailed analysis of these provisions has been published by the Women's Bureau of the United States Department of Labor (Bulletin No. 40, pp. 6, 41-51), and it is here attempted to give only a general idea of the types of regulations found in the different States.

<sup>3</sup> In California the regulatory measure consists of an order of the industrial welfare commission acting under its power to regulate the wages and conditions of employment of women and minors; in the other States they consist of State laws, supplemented, in some instances, by rulings of State boards.

<sup>4</sup> The Connecticut and Ohio laws, however, have no application to the members of the family living in the home where the work is done.

<sup>5</sup> In California the permit must be obtained from the industrial welfare commission, which issued the home work order.

4. Therefore no complete report as to the extent and conditions of home work in this country can be made, and further investigation on the subject is urged.

Second. As to the methods in effect of dealing with the situation:

1. Some system of legal regulation is unquestionably necessary, at least in States where the industrial home-work problem exists.

2. Certain minimum standards of legal regulation may be agreed upon on the basis of the experience of the States up to the present time.

3. However, no general agreement among State officials and other authorities appears to exist as to the most effective program for the correction of the evils of industrial home work, and no information is available that can enable the committee to judge conclusively as to the relative effectiveness of the different methods in operation.

#### RECOMMENDATIONS

##### *I. Need for further research and suggestions as to method of conducting the necessary research*

In view of the facts brought out by the inquiry, the committee decided to place chief emphasis in its report to the association upon the need for further information as to the facts of industrial home work and as to effective methods of correcting the evils found to exist wherever home work is undertaken on any extensive scale, and to make as its chief recommendation a continuation of the study of the industrial home-work problem by the association and its membership.

It is the opinion of the committee that the facts regarding the extent and conditions of factory work in the home should be obtained as far as possible by labor officials of the different States, each working independently in his own State but preferably following a common outline of study. So ready a response was made to the request of the committee in its questionnaire sent out this spring that the committee is encouraged to hope that a large number of States might cooperate in such an inquiry if given a reasonable time in which to do so.

The committee believes that the study of the comparative effectiveness of the different types of home-work regulations, on the other hand, should be undertaken as a general inquiry by some research organization independent of the membership of this association, working, of course, in close cooperation with the State agencies and with their active help, but itself assuming full responsibility for the investigation and report.

Should the association indorse this plan, it is recommended that a committee similar to the present one be appointed to undertake the necessary negotiations for such a study and to serve as an intermediary between the association and the research agency during the conduct of the inquiry. This committee could also serve as an advisory board and clearing house of information in connection with any investigations that might be made by the State officials as to the extent and conditions of industrial home work in their several States, as suggested above.

##### *II. Minimum standards of regulation recommended pending further research*

Although the members of the committee felt that the facts at their command at the present time were insufficient to enable them to recommend a complete legislative program, certain minimum standards of regulation operative in some States at the present time were agreed upon by all members of the committee as desirable, at least pending the study of regulatory machinery that is necessary before a more considered program can be recommended.

Before enumerating the standards agreed upon, mention should be made of two methods of control not covered in these recommendations:

First, although certain members of the committee were of the opinion, many times expressed by numerous governmental and other authorities as the result of

careful study of the problem, that the cure of the evils of home work could probably be achieved only through the legal prohibition of all kinds of factory work in the home, the committee as a whole was of the opinion that no stand could be taken on this point without a more thorough knowledge of the effectiveness of less drastic methods of control. Moreover, the great difficulty of securing the passage of prohibitory legislation makes necessary for practical reasons the consideration of other and more easily obtainable measures.

Second, the application of minimum wage legislation to industrial home work, regarded in countries in which it has been tried as a relatively successful measure of regulation, has not been given serious consideration by the committee as a method of controlling the home-work problem in the United States at the present time because of the present constitutional status of legislation of this kind.

Following are the minimum standards of regulation unanimously agreed upon by the committee:

1. Absolute prohibition of the manufacture of certain kinds of articles in the homes is necessary for sanitary reasons, either for the protection of the consumer, as in the case of foodstuffs, certain articles of clothing, etc., or for the protection of the worker in cases where poisonous or otherwise injurious materials are used in manufacture of the goods concerned.

2. All labor laws of a State, including legislation regulating child labor and the hours of labor of women, workmen's compensation or employer's liability laws, minimum-wage legislation, and the legal standards for safety, sanitation, and working conditions, should apply to industrial work of all kinds done in the home as well as to that done in the factory.

3. Responsibility for full compliance with such laws and with any special regulations applicable to home work should be placed upon the manufacturer for whom the work is done, irrespective of whether the work is given out by him directly or through another person. He should be required to keep on file a register containing the names, addresses, and ages of all home workers employed on work for him, the kind and amount of work done, rate of pay and actual wages paid, together with such additional information as the department of labor may require, accessible to inspectors of the department, and should send a copy of this register periodically to the labor department. No employer or contractor should be permitted to give out home work who is not licensed to do so by the State department of labor and no employer should be licensed to give out home work who does not enforce compliance with all the requirements of the labor law applicable to home work in the homes in which work is done for him.

4. Adequate authority for the enforcement of all laws applying to factory work done in homes should be given by law to the State labor department, and an adequate inspection staff should be provided for this work. Periodic inspections of places where home work is done should be made. It is believed that in States where the industrial home-work problem is an extensive one, the appointment of a special staff of inspectors who will devote their entire time to the enforcement of the regulations applicable to home work will result in greater efficiency of administration than when the work is handled by regular factory inspectors assigned also to other duties.

5. Local boards of health shall notify the State labor department daily of all cases of communicable disease occurring in the locality over which they have jurisdiction, giving the name and address of the person suffering from the disease, and the State labor department shall report immediately to employers the names and addresses of all home workers registered as employed by them in whose homes such disease exists.

6. A tag or label giving the name and address of the manufacturer, the nature and quantity of the goods, and the name and address of the worker or workers to whom the goods are given out to be worked on shall be placed upon each unit of delivery or shipment to a home worker, and this label shall not be removed until the work has been completed and returned to the employer.

7. The members of the committee did not feel sufficiently certain of the effectiveness of the different systems now in operation in a number of States whereby individual families or residences are licensed for home work by the State labor department to recommend the adoption of a specific method of regulation of this type. The committee is, however, of the opinion that this machinery should

certainly be retained by the States in which it is now operating until such time as more effective methods of enforcement have been worked out by these States.

Miss MATTHEWS. We were fortunate in having on the committee representatives from all the important States in which industrial home work is an extensive problem and in which legal regulations have been enacted with respect to home work. A number of these State representatives were responsible for the administration of the law in their States, so that we had the benefit of having people on the committee who were personally familiar with the administrative problems involved.

[After due consideration this report was referred to the committee on resolutions.]

The CHAIRMAN. The next matter on the program is the report on migratory children. Mr. Connally is not here, but we are very fortunate in having Mr. Wood, of Louisiana, to read the report.

Mr. WOOD. At the last meeting of this association committees were appointed on a resolution relative to migratory children. Living in different sections of the country, we had to handle this matter by correspondence. I don't know that it is the wish of this body that we should read the report which we have received from the Children's Bureau. It simply deals with the condition existing throughout the United States. I hope you will adopt this as it stands and you will get it to read just about this time next year when the body meets again.

[It was moved and seconded that this report be received and incorporated in the minutes and it was turned over to the resolutions committee. The report follows:]

#### REPORT OF COMMITTEE ON MIGRATORY CHILDREN

We, your committee on the problem of migratory child labor, appointed at the Salt Lake City conference last August, have been unable on account of limited time and means to make a detailed study of the problem. But we have received and have carefully considered a report of the Children's Bureau of the United States Department of Labor dealing with this subject, copy of which is hereto attached, and which it is recommended be printed in the proceedings of this conference.

In view of the terrible conditions existing in the agricultural industries in the States affected, as set forth by the Children's Bureau, your committee presents the following recommendations:

First. That this association call upon all public-spirited organizations to redouble their efforts to have the States that have not already done so ratify the pending Federal child labor amendment.

Second. That this organization request the Chief of the Children's Bureau of the United States Department of Labor to have sufficient copies of its report on migratory children printed to circulate throughout the several States.

Third. That a campaign be conducted with school authorities in the States affected, to the end that compulsory school attendance laws be improved and that the strictest enforcement of these laws be insisted upon.

Fourth. That this organization undertake, through the cooperation of the National Child Labor Committee and other sympathetic organizations, a campaign to defeat all candidates for the legislatures of the several States who are known to be antagonistic to ratification of the proposed twentieth amendment.

CLAUDE E. CONNALLY, *Chairman.*

F. E. WOOD.

**SUMMARY OF INFORMATION OBTAINED BY UNITED STATES CHILDREN'S BUREAU ON MIGRATORY CHILD WORKERS IN INDUSTRIALIZED AGRICULTURE**

During the period 1920-1924, the industrial division of the Children's Bureau made a series of studies of children engaged in agricultural work, selecting typical farming areas in different sections of the country with the idea of giving a fairly representative picture of the work of children on farms. By personal interviews detailed information was obtained regarding approximately 13,500 children under 16 years of age engaged in agricultural labor full time, though usually seasonal, in 14 States, including sugar-beet growing sections in Michigan and Colorado, cotton-growing counties in Texas, truck and small-fruit areas in southern New Jersey, and in Maryland, Virginia, Illinois, Washington, and Oregon, wheat, potato raising, and grazing sections in North Dakota, a section in the Illinois corn belt, and tobacco-growing districts in Kentucky, South Carolina, Virginia, Massachusetts, and Connecticut.

**CHARACTER OF CHILD LABOR ON FARMS IN DIFFERENT SECTIONS**

There is a marked difference in the kinds of child labor employed on farms in the different States and even on those of different sections of the same State. The child workers on the truck farms of southern New Jersey, for example, included both the children of farmers, chiefly immigrants who had taken up small holdings in the farming districts and become permanent residents, and children who had come from the large cities as seasonal workers. In the Eastern Shore section of Maryland most of the children working on the truck farms lived on the farms the year round, whereas in Anne Arundel County, around Baltimore, about two-thirds of the child workers were found to be living on the farms or in small neighboring settlements, and one-third were migratory workers from Baltimore. In the Norfolk area of Virginia a very large proportion of the farm laborers did not live on the farms but came from near-by villages or from the city of Norfolk to work by the day. In the tobacco-growing districts of the South most of the children who worked on the farms were farmers' children, whereas in the Connecticut Valley the children working on the tobacco plantations were largely day workers from Hartford and Springfield. On the truck farms around Chicago also most of the hired workers came out from the city by the day, whereas on the great grain farms of the Middle West and Northwest the child workers were chiefly the farmers' own children.

**NUMBER OF MIGRATORY CHILD WORKERS IN CHILDREN'S BUREAU STUDIES**

Approximately 3,000 migratory child workers were included in the Children's Bureau studies, regarding as migratory workers those who were not living at home during the period in which they worked on the farms. These children were found in the greatest numbers working in the beet fields of Colorado and Michigan and on the truck farms of Maryland and New Jersey and the fruit and the hop ranches of the Northern Pacific States, but a few of them worked in the cotton fields in Texas and on truck farms in the vicinity of Chicago.

The migratory children included in the Children's Bureau studies by no means represent the total number of such child workers, even in the sections where the studies were made. For example, in parts of Weld and Larimer Counties in the Colorado sugar-beet raising districts the Children's Bureau study included 1,073 children who were beet field workers, of whom 774, or 72 per cent, were contract laborers' children, almost all of whom were migratory workers; whereas it was estimated by the judge of the Weld County court that about 2,500 children were at work in the beet fields of Weld County and if the proportion of migratory laborers' children in the Children's Bureau study holds good for these there were almost 1,800 migratory child workers on the beets in this one county. In the study of children working on the hop ranches and in the fruit orchards of Washington and Oregon some of the largest ranches even in the districts surveyed were not visited, so that the 1,000 migratory child workers interviewed were only a small proportion of the number at work. Conditions as found by the Children's Bureau do not, therefore, give a complete picture of children throughout the country who migrate to the farms for seasonal work, but it is believed to be a representative one.

## RACE AND NATIONALITY OF MIGRATORY WORKERS

In most of the farming districts the migratory laborers were of foreign stock. Most of the beet field workers in Colorado were Russian-Germans and Mexicans; in Michigan, Bohemians and Poles as well as Mexicans. In Maryland the migratory farm laborers were for the most part Poles, and in New Jersey, Italians. In the Texas cotton area they were chiefly negroes and Mexicans, though almost half were native white. In Washington and Oregon the majority of the migratory children were of native white parentage, but they included some of foreign stock, principally Scandinavians and Russian-Germans, though many foreign nationalities were represented.

## RECRUITING MIGRATORY FAMILY LABOR

The migratory child workers went to the farms with their families, in some cases including the father but often only the mother with the children of both sexes and all ages. In Colorado many of the families came from small towns near the beet fields, though others were recruited from Denver, Pueblo, Trinidad, Kansas and Nebraska cities, and even from Texas and New Mexico; in Michigan also they had been brought into the beet fields from the Mexican border and from cities as far away as Cincinnati and Pittsburgh. Baltimore supplied the Maryland truck farms, and Philadelphia and less commonly Trenton or other New Jersey cities the New Jersey farms, with seasonal labor. In Washington and Oregon the migratory workers came into the hop and fruit districts from small towns or rural sections in the State, though some were from Portland or Salem and others had come from Idaho, Montana, or more distant States, or from Canada. Many of these workers were automobile tourists of the type that "follows the fruit" year in and year out and has created new and special problems in the Pacific Coast States.

Agents of the beet-sugar companies generally recruited the migratory labor for the beet fields. In New Jersey and Maryland the "row boss" or the "padrone" visited the cities and engaged the families, often his relatives and friends, at so much per head. On the Pacific coast growers advertised extensively and sometimes sent trucks to the docks and railroad stations of the cities to pick up any laborers they could find; some of the large hop companies had offices in Portland and Seattle, others employed agents, put up signs to attract tourists, or canvassed the tourist camps for workers. Owners complained about the instability of the "tourist" workers saying that it was necessary to have three crews of pickers, "one coming, one going, and one working."

In order to hold the workers it was customary in some of the districts for farmers to hold back part of the pay until the end of the season or, as in some of the sugar-beet sections, to give a bonus, payable also at the end of the season. Under these circumstances if working and living conditions were unsatisfactory the migratory workers coming from a distance were at a disadvantage, as they had to wait weeks or months until they were paid before they could leave. But whether the families came from near or far the children were subjected to certain evils arising from the mode of life and the character of the work, chief among which are the housing situation, long hours of work, and loss of education.

## HOUSING AND SANITATION

Although farmers were beginning to realize that they could not attract and hold the better class of laborers unless they provided comfortable quarters, only too often the living arrangements for migratory workers were the veriest makeshift, violating every standard of decency as well as comfort.

Laborers' families in both Colorado and Michigan occupied any kind of shelter that was available for temporary use—abandoned farm houses, rude frame or tar-paper shacks, and even tents and caravan wagons—though some of the sugar companies in Michigan had provided one or two room portable cottages for their laborers. The dwellings were in many cases in bad repair, dark, ill ventilated, and far from weatherproof. Overcrowding was extreme. In Colorado 77 per cent and in Michigan 60 per cent of the laborers' families lived with two or more persons per room. Sanitation was poor, and the water supply especially in the irrigated districts of Colorado, was often neither plentiful nor protected against contamination. Most of the laborers occupied their "beet shacks" for five or six months a year.

The migratory laborers in the hop yards and orchards of the Pacific coast lived in camps on the grower's premises, some of them villages in themselves, housing several hundred persons. Nearly three-fifths of the families in the Willamette Valley district included in the study and nearly all in the Yakima Valley district lived in tents; the others occupied one-room frame houses built in rows, each with one window. In both tents and "bunk houses" extreme overcrowding was found; two-thirds of the families in one district and almost all in the other had three or more persons per room and the majority had five or more. A regulation of the Washington State Board of Health called for a specified amount of air space per person in frame houses in laborers' camps, but the regulation did not extend to tents, as a similar one in California does, and Oregon had no such regulation for either houses or tents. The Washington regulation was not enforced in the camps visited. Sanitation of labor camps in both States is regulated, and sanitary conditions were better than in farm labor camps visited by the Children's Bureau in most other sections. Especially in Oregon it was apparent that systematic State inspection of camps for fruit and hop pickers could greatly improve sanitary conditions.

In Anne Arundel County, near Baltimore, Md., individual farmers maintained camps for the migratory workers. Most of them contained but one building, known as a shanty, which served as sleeping quarters for all the workers, a weather beaten or unpainted structure the windows of which usually lacked either glass or shutters or both. As a rule there was but one room on each floor, with stairs on the outside leading into the upper room. On each side of a narrow aisle down the center the floor was divided into sections or pens by boards 10 or 12 inches in height, each being about 6 feet long and from 4 to 6 feet wide and covered with straw for a mattress. Each family was allotted one of these pens. At night men, women, and children, partially clad, one family separated from the next by the plank, lay side by side. One such shanty in one of the camps housed 95 persons. More than one-half the families had no toilet facilities, 12 of the 25 camps visited had no privy, only one had adequate toilet arrangements, and most of the camps were located dangerously near the water supply. "Here we are like fish in a barrel" many families declared, describing the way in which they lived as "like hogs," "like sheep" and "like cattle beasts."

In southern New Jersey the workers were generally housed in labor camps on the grower's premises, varying in size from a rude building or two, housing half a dozen families, to large, well-organized settlements, villages in themselves, housing 300 to 400 pickers. The living quarters were either one or two room row buildings or large two-story barnlike structures divided into small rooms upstairs and down and housing many families. Some of the camp buildings were in good repair, but even in the best camps congestion was very great; 55 per cent had three or more persons per room, 27 per cent at least four. The amount of cubic air space was very inadequate. No provision was made for disposal of garbage or of waste water, and the privies were often insanitary. In connection with the housing provided for migratory families in New Jersey it is interesting to note that the Mothers' Assistance Fund of Philadelphia would not grant mothers' pensions to families migrating to the truck farms, on the ground that the crowded conditions in the country were bad for the children.

#### CONDITIONS OF WORK

The child workers in industrialized agriculture, employed, as they usually are, for harvesting when speed is essential, working at piece rates, at monotonous and repetitive operations, and under the eye of the row boss, work under conditions not very different from those of factory hands, except that their hours are often much longer than factory hours.

The Children's Bureau found that on New Jersey truck farms 41 per cent of the migratory child workers of all ages worked at least 9 hours a day and 12 per cent worked 10 or more hours. The 9 or 10 hour day for children was even more common in the hop yards and fruit orchards of Washington and Oregon; in the hop yards and prune orchards of the Willamette Valley district studied in Oregon 33 per cent of the migratory child workers worked at least 10 hours a day, and in the Yakima Valley district in Washington, where the children were employed chiefly in picking hops, 87 per cent worked 10 hours or more a day. The migratory children who picked cotton in Texas worked at least 8 hours a day and 68 per cent had a working-day of at least 10 hours. Perhaps the longest hours of all were those reported by beet field workers; from 50 to 75 per cent of

the contract laborers' children in the Colorado and Michigan districts (the proportion varying with the different operations) worked 10 hours or more a day, the working-day in some cases running to 13 or 14 hours.

Almost no attempt has been made to restrict the hours of agricultural work for children nor to fix a minimum age for farm work, so that children under 10 years of age, and even under 8, work these excessive hours in many different parts of the country.

#### SCHOOLING

One of the most serious effects of migratory farm work on children is its interference with their education. The children leave school in the spring to go out to the farms, and it is often November or later before they return; where the families have no settled home even in the winter but follow the crops the year round, as do many of the migratory workers in the Pacific Coast States, the children are never long enough in one place to enter school or else they are enrolled in so many different schools during the year that they are unable to make any progress.

The beet field workers are likely to be withdrawn from school for the exodus to the beet fields in March, April, or May, not to return until November or December and sometimes even January. In the Colorado districts studied the contract laborers' children who lived a few miles from the beet fields lost on an average one-fourth of the school term, and a study of the school attendance of Colorado beet field workers attending school in Denver and Lincoln, showed that these migratory children had attended school only from 42 to 56 per cent of the term. From 47 to 78 per cent of the various groups of migratory beet field workers in Michigan and Colorado were retarded in school. Comparison of the children working in the beet field with nonworking children based upon the school records of several thousand children showed that the percentage of retarded children was 20 to 30 per cent higher among the employed than among the non-employed children.

The bean pickers and other migratory child workers on the truck farms of Anne Arundel County, Md., had lost from four to six weeks of the school term in Baltimore because they had withdrawn from school to go to the country, and 69 per cent of these workers were below the grades which they should have been in.

In Washington and Oregon the beginning of the hop harvest in September coincided with the opening of schools in many places from which the migratory workers came and the strawberry season in June in some sections of Washington and Oregon began before all the schools were closed. Children in families who follow the crops suffer most from irregular attendance, as they either do not go to school at all in the districts where their parents find work or else go irregularly to several schools in one year. Although county attendance officers and local school boards in the Yakima Valley and Willamette Valley districts studied made unusual efforts to get the migratory children to go to school, in families which move from county to county and from State to State the children's schooling was at the mercy of the parents' standards. Fifty-three per cent of the migratory workers in these districts had missed at least one school month, twice as many in proportion as local workers who had lost as much time as that from school, and from 31 to 59 per cent of the migratory workers were retarded.

Although the actual time work by the migratory children in southern New Jersey was seldom more than three months, the work extended over a period beginning sometimes as early as March and lasting until after the cranberry harvest in October or November. As a rule no effort was made to send the children to school during their residence in New Jersey. The local school authorities assumed no responsibility, on ground that the children were not residents of the State. The farmers were not usually interested in getting the children in school, as they felt that they needed the children's work in order to get their crops to market. Parents were for the most part primarily intent upon the money that the children's labor added to the family income, which would be considerably diminished if the children of the family were compelled to spend part of the day in school. Half the children included in the study in New Jersey had lost 8 weeks or more from school and about 29 per cent had lost at least 12 weeks. The average absence for farm work was 43 days. Almost three-fourths (74 per cent) of the children were retarded in school. A special supplementary study of about 800 Philadelphia school children leaving school to work on farms, principally in New Jersey, showed that the average school attendance of these children was only between 70 and 75 per cent of the term, and 18 per cent of them

had attended school less than 60 per cent of the term. The average absence for farm work was between 15 and 20 per cent of the school year. Among these children also it was found almost three-fourths (71 per cent) were below the standard grades for their ages.

#### LEGAL REGULATION OF EMPLOYMENT OF CHILDREN IN AGRICULTURAL PURSUITS

There are few State laws applying specifically to the work of children in agricultural pursuits. Although, as noted later, a number of the various provisions of the child labor laws affecting the work of the children during school hours apply to "all gainful occupations," and so would nominally cover farm work, almost the only regulation of this type of child labor is that which results indirectly from the operation of the compulsory school attendance laws. Its effectiveness, therefore, of course depends entirely upon the strictness with which these laws are enforced.

In the following States, however, definite regulatory provisions of one kind or another affecting the employment of children in agricultural work are found in the child labor or the compulsory school attendance laws. All these except the Nebraska law are of comparatively recent enactment.

*Nebraska.*—Work in the beet fields is included among the occupations for which a maximum eight-hour day is fixed and in which night work is prohibited.

*New York.*—The minimum age for employment in any occupation is 14,<sup>1</sup> except that children of 12 or over may be employed outside of school hours in farm service not connected with factories, canneries, and the other establishments for work in which the minimum age is 14. Provision is made for the issuance of a special type of employment certificate for the employment of children 14 to 16 years of age<sup>2</sup> in agricultural pursuits during school hours. For this certificate the same requirements are imposed as for industrial employment, except that the child need not present a promise of employment and need not obtain a new certificate when he goes from one employer to another.

*Massachusetts and Pennsylvania.*—Although the child labor law is not made specifically applicable to children employed in agricultural pursuits, the compulsory school attendance law requires a child between 14 and 16 who wishes to leave school for farm work to obtain special type of certificate. To secure this certificate he must have completed the sixth grade.

*Ohio.*—The so-called Bing law, passed in 1921, regulated the work of children in agricultural pursuits by prohibiting the employment of children under 14 at any time and of children under 16 during school hours at any sort of work, exempting only "irregular service" defined below. Certificates were required for all employment of children between 14 and 18 except in "irregular service." Certain modifications of this law, the effect of which is not entirely clear, were made in 1925. Under the law as amended children 14 to 18 may work in agricultural pursuits outside school hours without employment certificates, and certain exemptions are provided, applicable to children determined to be mentally incapable of profiting by further school attendance. A child 14 or over may, under regulations of the State department of education, be excused from school attendance "to perform necessary work directly and exclusively for his parent or guardian." No child under 14 shall be employed in any occupation more than four hours a day, and no child under 16 shall be engaged in school and employment more than nine hours altogether in any one day. The definition of irregular service, retained in the new law, is as follows:

" \* \* \* Service not forbidden by Federal child labor laws which (a) does not involve confinement, (b) does not require continuous physical strain, (c) is interrupted with rest or recreation periods, and (d) does not require more than 4 hours of work in any day or 24 in any week. The health commissioner of the district in which employment is afforded to any child shall determine whether the employment involves confinement or requires continuous physical strain so that it can not be deemed irregular service within the meaning of this section."

*Wisconsin.*—A law passed in 1925 gives the State industrial commission, which enforces the child labor law as well as other labor laws, power to fix reasonable regulations relative to the employment of children under 16 years of age "in cherry orchards, market gardening, gardening conducted or controlled by canning companies, and the culture of sugar beets and cranberries, for the purpose of protecting the life, health, safety, and welfare of such children." Under this law

<sup>1</sup> With certain exemptions applicable to children in street trades.

<sup>2</sup> Fourteen to seventeen years of age in cities of 5,000 population or over.

the following regulations relating to the work of children in the culture of sugar beets have been made:

No minor under the age of 14 years shall be employed or be permitted to work in the culture or harvesting of sugar beets more than 8 hours in any one day nor more than 48 hours in any one week, nor before the hour of 7 o'clock in the morning nor after the hour of 7 o'clock in the evening.

No minor under the age of 14 years who has not completed the eighth grade in school shall be employed or be permitted to work in the culture and harvesting of sugar beets during the hours when the public schools are in session in the school district in which such minor is actually living during the beet culture and harvesting season.

Companies engaged in the manufacture of beet sugar and who arrange contracts between the growers and the families who are to perform the work shall send to the industrial commissioner the following information when the family is finally placed with the growers:

(a) The name and address of the field agent; (b) the name, location, and address of each family under his supervision; (c) the last residential address of each migratory family; (d) the name and age of each child under 16 years of age in the family; (e) the name and address of the grower with whom the contract is made; (f) the name or number of the school in the district.

Companies engaged in the manufacture of beet sugar who arrange contracts between the growers and the families who are to perform the work shall advise parents and growers of the provisions of these orders.

Most State child labor laws, on the other hand, either specifically exempt agricultural pursuits or regulate only a list of specified establishments and occupations, among which agricultural work is not included.

Compulsory day school attendance laws,<sup>3</sup> applicable in most States to children up to 16 years of age<sup>4</sup> indirectly affect, as above stated, the work of children on farms. The difficulties of enforcement often existing in rural districts are, however, well known. Many school attendance laws, moreover, contain general exemptions, such as "excused for sufficient reasons," "excused for satisfactory reasons," or "necessary absence" which might be used to cover absence for farm work. The Georgia law specifically mentions the need for agricultural work as one of the reasons to be considered in excusing children in farming districts, and the North Carolina law permits the State board of education to determine under what circumstances local school authorities may excuse pupils for non-attendance due to "immediate demands of the farm and the home in certain seasons."

The almost universal exemption from school attendance laws of children 14 years of age who are "employed" is usually broad enough to cover children engaged in farm work, and it sometimes is made specifically applicable to children working at home. A child leaving school for work in agricultural pursuits might under many of these laws be required to obtain some kind of school-leaving certificate, but the provisions in most cases are so general or so loosely worded that no exact analysis on this point is possible.

The general provisions of the State child labor laws which would nominally cover farm work may be classified as follows:

#### 1. MINIMUM AGE

The following 23 States prohibit the labor of children under 14 or under a higher age in any occupation, or any gainful occupation, during school hours (thus covering farm work during the hours when schools are in session):

Alabama,<sup>5</sup> 14; Arizona, 14; Arkansas (child employed by parent in school vacation exempted), 14; California, 14 (under 15 unless certain conditions are fulfilled); Connecticut, 14; Idaho, 14; Illinois, 14; Indiana, 14; Kansas, 14; Kentucky, 14; Maine, 15; Massachusetts, 14; Minnesota, 14; Nebraska, 14; Nevada, 14; New Mexico, 14; New York, 14; North Dakota, 14; Ohio, 16 (with exemptions); Oregon, 14; Pennsylvania, 14; Tennessee, 14; West Virginia, 14.

<sup>3</sup> Many of the compulsory continuation school attendance laws also would nominally cover children employed in farm work, but this fact is of little significance, as continuation schools are seldom if ever established in rural districts.

<sup>4</sup> Except in Arkansas, where it extends to 15 years of age, and in Georgia, North Carolina, South Carolina, Texas, and Virginia, where it extends to 14 years of age.

<sup>5</sup> Certain specified occupations are exempted, but not farm work.

## 2. MAXIMUM HOURS OF LABOR AND PROHIBITIONS OF NIGHT WORK

The following eight States have laws regulating the hours of labor of children under 16 in any occupation (not exempting farm work):

Arkansas (8-hour day; night work prohibited); California (8-hour day with exemptions; night work prohibited; total hours of schooling and labor of child working outside school hours must not exceed eight); Colorado (8-hour day; night work prohibited<sup>6</sup>); Idaho (9-hour day; night work prohibited); Illinois (8-hour day; night work prohibited); Minnesota (8-hour day; night work prohibited); New Mexico (8-hour day; night work prohibited<sup>7</sup>); Ohio (not more than 9 hours per day for both school and employment when child is attending school and working outside school hours; not more than 4 hours per day for child under 14); Oregon (8-hour day; night work prohibited).

## 3. EMPLOYMENT CERTIFICATES

As in case of the minimum age laws, the requirement of an employment certificate may under some laws nominally cover the work of children in all occupations or in all gainful occupations during school hours. The applicability of these general provisions to farm work, however, is often ambiguous.

### STATE COMPULSORY SCHOOL ATTENDANCE LAWS AS AFFECTING MIGRATORY WORKERS

The legal power of the school authorities to require the attendance at public schools of children of migratory parents would depend upon the exact wording both of the laws requiring parents to send their children to school and of those giving to children the right to attend the public schools. The latter provision, generally found in the State constitutions, is usually broadly worded, giving the right to attend the public schools to the "children of the State" within certain ages. The school laws do not as a rule deal specifically with the situation—that is, they do not state in so many words that a parent must have lived in the State for any given period before he has the right to have his children admitted to the public schools—nor do the compulsory attendance provisions specify that the duty of the parent to send his child to school extends only to those parents who have lived in the State for a certain length of time.

The wording of the law varies from State to State. At one end of the scale is the Ohio law carefully phrased to include specifically migratory children; at the other the Florida law, for instance, which requires only "parents or guardians having citizenship with the State" to send their children to school. The Ohio law is as follows:

"Every child actually resident in the State shall be amenable to the laws relating to compulsory education, and neither he nor the person in charge of him shall be excused from the operation of said laws or the penalties under them on the ground that the child's residence is seasonal or that the parent of the child is a resident of another State or that the child has attended school for the legal period in another State."

A law passed in Maine in 1925 to the same effect provides that children of parents who must move from place to place on account of their occupations shall be subject to the compulsory school attendance law of the locality where they are temporarily resident.

Between these two extremes—the Ohio and Maine laws on the one hand and the Florida law on the other—are many variations, a common one being that which applies the law to a parent or child who is a "resident" of the State. Under such a law the applicability of the provisions to migratory children would depend upon whether the school authorities applied a strictly legal definition of "residence" or used the word in its ordinary sense. It does not seem that the school authorities would be required to interpret the word in its legal significance, which would depend partly upon length of residence and partly upon intent to permanently reside, which the migratory worker of course does not have. When a law, as in Pennsylvania, applies only to children having "a legal residence" in the State, the more strict interpretation might be applied.

<sup>6</sup> Exemption apparently permitted during summer vacation on special permit.

<sup>7</sup> Children working for parents on premises or land occupied by them are exempted.

Other laws merely require "every parent, guardian, or other person having control" of a child of the ages specified to send him to school or require "every child" to attend school without saying anything about residence. Even where the law is of this type, however, the school authorities may object to enforcing school attendance of migratory children on the general ground that the State's school privileges are intended for State children and not for those coming in from outside for a temporary stay to take advantage of the employment situation.

Another difficulty which arises in this connection is that migratory children are very likely not to be included in the annual school census—either because they are not in the State when the census is taken or because the school census law is not interpreted to require the enumeration of temporary residents. This not only increases the difficulty of enforcement of school attendance, but where, as is very often the case, State school funds are apportioned according to the number of children of school age as reported by the school census, objection to extending the school privileges to migratory children may be based upon the fact that no financial provision has been made for them by the State. A Michigan law passed in 1925 appears to be aimed to remedy such a situation, as it provides for a continuous State school census and child accounting system, with a special appropriation for the purpose to be expended by State superintendent of public instruction.

In California the following special provision was made in 1921 for schools for migratory children:

"It shall be the duty of the superintendent of public instruction to superintend, organize, and maintain special classes of elementary grade for the education of children of migratory laborers in the rural districts of this State. Within the limits of the appropriation hereinafter made, he is empowered to employ the necessary teachers, purchase the necessary supplies, and incur such additional maintenance charges as may be necessary for the education of such children. Schools or classes organized under the provisions of this act may be held in the public school house of the school district in which such children reside or in such other quarters as the superintendent of public instruction may deem suitable for the purpose: *Provided*, That no public school house shall be used for this purpose without the consent of the governing board of the district. It shall be the duty of the county superintendent of schools and of school boards to cooperate with the superintendent of public instruction in carrying out the provisions of this act. The sum of \$10,000, or so much thereof as may be necessary, is hereby appropriated out of any money in the State treasury not otherwise appropriated, to be used in accordance with law for the purpose of carrying out the provisions of this act."

#### STATE REGULATION OF LABOR CAMPS

State laws specifically regulating camps for housing industrial workers<sup>8</sup> or giving some State board specific power to make such regulations are found in the following States:

California (all labor camps); Delaware (cannery camps only); Maryland (cannery camps only); Michigan (not clear whether all labor camps or only factory, including cannery camps); Minnesota (all labor camps); New Mexico (all labor camps); New York (department of labor regulations cover camps for factory (including cannery) workers; board of health regulations cover all labor camps); Pennsylvania (all labor camps).

In addition, it is known that in the following States regulations have been made by State boards under general powers:

Oregon (hop yards, berry fields, orchards, and packing houses, where women or minors are employed); Washington (all labor camps).

The Minnesota, New Mexico, and Pennsylvania laws consist of general grants of power<sup>9</sup> to regulate the sanitary conditions of all types of industrial or labor camps, this power being given to the State board of health in Minnesota, to the State department of public welfare in New Mexico, and to the commissioner of labor and industry in Pennsylvania.

<sup>8</sup> Omitting laws relating only to camps for workers on highways and public improvements and those relating only to boarding houses for laborers.

<sup>9</sup> We do not know what regulations have been made by these boards.

The Delaware and Maryland laws relate only to camps for cannery workers being in each case a part of a general law relating to the sanitation of canneries<sup>10</sup> under the jurisdiction of the cannery inspector in Delaware and of the State board of health in Maryland. In both States the legal provisions are general, specifying that living quarters shall have waterproof roofs and tight board floors and shall be provided with ample light and ventilation, that provisions shall be made for proper separation and privacy of the sexes, that there shall be adequate drainage, and that the surroundings must be kept in a clean and sanitary condition. The Maryland law contains the additional requirement of an ample supply of pure drinking water.

The Michigan law, which is part of the general factory law, is under the jurisdiction of the department of labor and industry. It applies to "any employer engaged in construction of railroad or other work," and relates to premises for sleeping or living accommodations furnished by the employer for his employees, requiring that they "shall be maintained in a cleanly and sanitary condition and kept sufficiently heated and well lighted and ventilated." The application of the provision is somewhat doubtful, as the powers of inspection given in the act are limited to factories, including canneries, stores, and hotels. The law creating the department of labor, however, gives the commissioner and his appointees under his direction power to inspect "all manufacturing establishments, work shops, hotels, stores, and all places where labor is employed."

The New York law empowers the industrial commissioner to enter and inspect all labor camps, but gives the department of labor power to regulate sanitary conditions of such camps only in case of an employer conducting a factory<sup>11</sup> and furnishing to his employees living quarters at a place outside the factory. The employer is required to maintain such living quarters in a sanitary condition and in accordance with rules adopted by the State industrial board (a division of the department of labor). The rules promulgated by the board cover construction of living quarters, air space and windows, beds, bathing facilities, water supply, drainage, number of rooms per family, sleeping accommodations, garbage and sewage disposal, cleanliness, and other sanitary conditions. In addition to these regulations there should be considered also the regulations established by the State public health council for labor camps in general. (Chapter V of the Sanitary Code.) These require that notice of any labor camp occupied by five or more persons shall be given to the local health officer, and a permit must be obtained if the camp is to be occupied by more than 10 persons for a period of more than six days. The provisions apply chiefly to drainage, water supply, pollution of waters, sewage, waste and garbage disposal, and communicable diseases.

The California law applies to all camps where more than five persons are employed and covers sanitary conditions in bunk houses, tents, and all other sleeping and living quarters. The provisions relate to structural condition, cleanliness, sufficient air space, beds, bathing and toilet facilities, disposal of garbage, and general sanitary conditions. The enforcement is under the State commission of immigration and housing, which has issued a pamphlet<sup>12</sup> setting out supplementary and explanatory rules, and giving detailed directions, with illustrations, as to location and layout of camps, water supply, sleeping quarters, disposal of garbage and sewage, toilets, baths, and other sanitary aspects.

In Washington the State board of health under its general powers of "Supervision of all matters relating to the preservation of the life and health of the people of the State" has made detailed regulations concerning the establishment of labor camps, covering location, drainage, toilets, waste and garbage disposal, water supply, construction and ventilation of bunk houses and amount of air space, and isolation of diseased persons. The site and water supply of all labor camps housing five or more persons must be approved by State and local board of health officials.

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<sup>10</sup> In Maryland the law also covers factories, bakeries, etc., but the provisions as to camps apply only to canneries.

<sup>11</sup> "Factory" includes a mill, workshop, or other manufacturing establishment and all buildings, sheds, structures, or other places used for or in connection therewith, where one or more persons are employed at manufacturing, including making, altering, repairing, finishing, bottling, canning, cleaning, or laundering any article or thing, in whole or in part, except certain establishments not pertinent to the present discussion.

<sup>12</sup> A advisory pamphlet on Camp Sanitation and Housing (revised, 1921), Commission on Immigration and Housing of California.

The Oregon regulations referred to are among the rulings made by the State industrial welfare commission under its power to establish minimum wages and standard hours and conditions of labor for women and minors. They cover hop yards, berry fields, orchards, or packing houses in which fruits, vegetables, or fish are packed, dried, or cured, and prohibit the employment of minors under 18 and women unless the specified conditions are met. These cover water supply, toilets, and garbage disposal.

It would seem that in most States the State board of health might make regulations under its general powers, as has been done in New York and Washington, and that in States where industrial commissions are given general powers to establish standard conditions of labor for women and minors, regulations such as those of Oregon might be made.

## DISCUSSION

The CHAIRMAN. Is there any further business before the meeting this afternoon?

Miss SCHUTZ. Since we are laying on the table the problem of migratory children and the report is going to be published, it might be interesting to have a little discussion of how the different States are meeting the problem if at all. I know Wisconsin has been doing something.

Miss SWETT. We are attacking it from the point of the child. The industry we are having difficulty with is the sugar beet. As I told you last year, our records showed that the big evil was lack of schooling of the children; so many were retarded in their schooling—something like 42 per cent were retarded four years and 31.7 per cent three years or more, allowing two years for one grade. We had a record of 187 minors from about 165 families. Our legislature passed a law that the commission should have the power to regulate employment of children in the sugar-beet fields, markets, cranberry fields, and the gardens operated by canneries. The big evil is the children employed in the cherry orchards. We are watching that industry, so that if evils crop up we can make some orders for cherry orchards. We have adopted orders for the sugar-beet fields. After a discussion we adopted the following:

No minor under the age of 14 years shall be employed or be permitted to work in the culture or harvesting of sugar beets more than 8 hours in any one day nor more than 48 hours in any one week, nor before the hour of 7 o'clock in the morning nor after the hour of 7 o'clock in the evening.

No minor under the age of 14 years who has not completed the eighth grade in school shall be employed or be permitted to work in the culture and harvesting of sugar beets during the hours when the public schools are in session in the school district in which such minor is actually living during the beet culture and harvesting season.

The thing that the sugar-beet company stood out for was the second order, which related to the employment of school children during school hours.

We are working toward the goal of seeing that the day's work doesn't start before 8 and they must quit about 5 or 6 o'clock in the evening. It will be a difficult matter, and we don't expect to get it in a year. It is a matter of real hard work. That means that during the school hours the school children under 14 years of age are not to be so employed. If they were in school it wouldn't be a problem for us, but they are not, so that is our job, to see that they are not working. That won't be so difficult as the length-of-the-day question.

We asked certain information from the beet companies on blanks drafted by us: The name and address of the field agent; the name, location, and address of each family under his supervision; the last residential address of each migratory family; the name and age of each child under 16 years in the family; the name and address of the grower with whom the contract is made. If he doesn't live on the grower's farm, we want to know his name and address. If he has made a contract with the grower we want to know his name. We are asking the cooperation of the sugar-beet people and school authorities in getting this information and in enforcing the law to keep children in school.

Miss CARR. The migratory question is that of outgoing and incoming children. I guess New Jersey is working on the problem of outgoing children; we in Pennsylvania are trying to deal with the incoming children. We found in our study of the canning industry that we get a large number from Maryland, largely from Baltimore, into our State, and we have made a printed report of the conditions which we found. We had three meetings with the canners of Pennsylvania; the first one was very strenuous, the second not so strenuous, and the third one most peaceful and instructive. We feel that the canners are meeting us more than half way to help us solve the question of legal employment of children in the canning industry. We have wanted to help them to see that children who were 14 to 15 years of age to be legally employed in our canneries must have the proper work certificates. So following our meeting with the canners we have given to each cannery, to turn over to its field agent, the promise-of-employment slips which are used more or less by all canners as their method of getting workers into the canneries. We have put on this promise-of-employment slip the address of the place in Baltimore where each child can go and get a health certificate, to get proof of age record, and all that is required by us in Pennsylvania; that, of course, was the result of the excellent cooperation which we had with the Maryland Department of Labor and the Baltimore school authorities. We do feel that with the cooperation of the canneries, children of 14 and 15 who come into Pennsylvania this year to work will have the proper work certificates.

Miss JOHNSON. I would like to suggest, if it is in order, that the committee on resolutions, which received this report on migratory children, consider also the question of regulations to protect children in the commercialized forms of agriculture. Wisconsin is the only State that makes any effort to do that, so in case of large scale agriculture operation there is practically no protection for school children outside of school attendance laws. Regulation should be extended to include nonmigratory children employed in industrialized forms of agriculture.

Mr. FRESHNEY. The big problem to me is who stuck the pin into Nebraska? To my own knowledge children have been working in the beet fields in Nebraska anywhere from 12 to 14 hours a day. Evidently some one must have stuck a pin in the people there and awoke them, and my great hope is that they stay awake until the 1st of next November. It is no unusual sight to see little tots 6 years

old up in the beet fields during the harvest season working from before daylight in the morning until after sundown at night, and I want to say that in our State one of the problems we face is the migratory worker from Nebraska. So far as children in our own State are concerned we handle them pretty well. We insist that children under 16, and even over 16 who have not completed the eighth grade, must go to school; there is no excuse accepted. They must have a work permit from the commission. That commission consists of myself as chairman, Doctor Anderson, the health officer of the State, and Mr. Tiddball, secretary of the department of the board of education. We have absolutely frowned on issuing any permit to any children under age. As a matter of fact I may say I have never written a permit for a child under 16 since I have been in office. Of course Wyoming is just on the verge of facing the big question of the sugar-beet industry, and we realize the magnitude of the task that lies before us, and we are laying the groundwork for this great work.

[Meeting adjourned.]

**WEDNESDAY, JUNE 9—MORNING SESSION**

**H. C. HUDSON, GENERAL SUPERINTENDENT EMPLOYMENT SERVICE, ONTARIO OFFICE, TORONTO, PRESIDING**

## **EMPLOYMENT**

The **CHAIRMAN**. The first number on the program this morning is by Miss Mary Van Kleeck, director department of industrial studies, Russell Sage Foundation, New York City. Our session this morning is on the problem of "Employment."

### **EMPLOYMENT STATISTICS—AN OPPORTUNITY FOR STATE DEPARTMENTS OF LABOR**

**BY MARY VAN KLEECK, CHAIRMAN COMMITTEE ON GOVERNMENTAL LABOR STATISTICS OF AMERICAN STATISTICAL ASSOCIATION**

We meet at a time when all the nations of the world look with envy upon the United States as the most prosperous country on the face of the globe. We are supposed not only to have millionaires a plenty, who pay large taxes and give money to education and charity, but we are also regarded as an industrial country with no unemployment and with the highest wages in the world. Is it true that we have no unemployment, or at least none that is serious or long continued? If it is true, are we making any plans to continue that desirable condition? If it is untrue, if wage earners are not all steadily employed all the time, are we doing anything effective to insure regular employment?

The fact is that for the past five years the economic machinery of the United States has been in fairly smooth running order; that the opportunity to keep it so by intelligence and good management is exceedingly promising, but that prosperity is not proof against careless management and heedless speculation; that evidences are many that we might have had a serious decline in employment in 1923 and 1924 had it not been for timely warnings which prevented an undue expansion in business with the probable resulting depression, and that we can not escape the effects of economic depression in foreign countries.

A time of prosperity offers a strategic occasion for analyzing anew the causes of unemployment. Past experience has shown that widespread enforced idleness is not due to lack of natural resources, capacity, or equipment for production, or even a need on the part of people for goods and services. Rather, unemployment has resulted from fluctuations in economic activity. These fluctuations may be seasonal, affecting one industry or activity at a time, or cyclical, affecting business in general. How far these fluctuations can be prevented or decreased no industrial country has yet discovered, but the conviction is growing among business men in this country that the time to prevent depression is when a boom toward prosperity is becoming

dangerous, when business is expanding too rapidly or without proper adjustment between interrelated activities.

If this be true, statistics assume an important place in the prevention of unemployment. They are the barometer of the industrial atmosphere. But we must have enough of them to be accurate. In the hope of enlisting the interest of departments of labor of a larger number of States in gathering monthly statistics of employment and earnings, I come before you to-day in behalf of the committee on governmental labor statistics of the American Statistical Association. That committee has included in its membership several statisticians in State and Federal bureaus—A. J. Altmeyer, secretary of the industrial commission of Wisconsin; Charles E. Baldwin, chief statistician of the Federal Bureau of Labor Statistics; Joseph A. Becker, statistician, Bureau of Agricultural Economics, United States Department of Agriculture; R. D. Cahn, chief of bureau of industrial accident and labor research, Illinois Department of Labor; Leonard W. Hatch, director of bureau of statistics and information, New York State Department of Labor; R. H. Lansburgh, secretary of labor and industry for Pennsylvania; Max O. Lorenz, Interstate Commerce Commission; Royal Meeker, former commissioner of labor statistics of the United States; Eugene B. Patton, chief statistician, New York State Department of Labor; Roswell F. Phelps, director division of research and statistics of the Massachusetts Department of Labor and Industries; Walter W. Stewart and Woodlief Thomas, of the division of research and statistics of the Federal Reserve Board; Fred G. Tryon, statistician of the United States Bureau of Mines; and from Canada, which has led the way in a nation-wide collection of facts for all representative industries and has much to teach us as to the best method of correlating the facts, we have as members of the committee R. H. Coats, Dominion statistician, and H. H. Ward, Deputy Minister of Labor.<sup>1</sup> Because of these members, who have had practical experience in governmental work and know all the difficulties in the way of undertaking new work, including the lack of adequate appropriations, I venture to hope that you will have confidence in the practicability of its recommendations. And may I say at once that the cooperation of Ohio, Michigan, and Indiana would greatly strengthen the chain of information for the country as a whole, and that the Nation also needs for its industrial indexes the facts which could be gathered by at least one southern State—North Carolina, Georgia, Kentucky, or Louisiana.

It would be absurd to claim that the mere collection of statistics would be the remedy for unemployment, but it is certainly true that unless we know the facts we can not control conditions. Possibly no one industry and no one country can ever control the economic forces that make for industrial depression under the conditions of the present, but the beginning of experiment in control is the collection of adequate information.

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<sup>1</sup>The other members of the committee who shared in the preparation of the report on employment statistics were: William A. Berridge, associate professor of economics, Brown University, and economist of the Metropolitan Life Insurance Co.; W. Randolph Burgess, assistant Federal reserve agent, Federal Reserve Bank of New York; Frederick E. Croxton, Columbia University; J. Frederic Dewhurst, chief of the statistical division, Federal Reserve Bank of Philadelphia; Ralph G. Hurlin, director department of statistics, Russell Sage Foundation; Don D. Lescobier, professor of economics, University of Wisconsin; Leo Wolman, national bureau of economic research, and director of research of the Amalgamated Clothing Workers of America.

Let me review the findings of the committee on unemployment and business cycles which grew out of the President's conference on unemployment in 1921. Stated briefly, the conclusions were these: The time to prevent industrial depression is when business is expanding unwisely; when raw materials are on hand in larger quantities than can be used in production; when sales are not keeping pace with output; when too large an amount of credit is being used to increase production. These unbalanced conditions result in a sudden drop in prices and in numerous other difficulties which result in failure for business enterprises.

This is merely a rough sketch. Too little is yet known about business cycles to fill in the details. We must know more about how one industry is related to another industry, so as to interpret the real significance of changing conditions in any one branch of economic activity. The important point is that conditions in business are the result of the sum total of decisions made by managers of industry, merchants, and bankers; and the experiment which the statisticians are urging is that sufficient information should be provided in order to insure wiser decisions by managers, merchants, and bankers.

Unemployment is not due only to general industrial depression. As we all know it occurs every year in the seasonal fluctuations of the various trades. Must these be accepted as a matter of course? The data needed to experiment in the control of the business cycle should also make possible a more widespread understanding of the causes of seasonal fluctuation.

When the President's conference on unemployment met in 1921 it was impossible to ascertain with accuracy how many wage earners were unemployed. Two States at that time were collecting monthly statistics—New York and Wisconsin. With the cooperation of these two States the Federal Bureau of Labor Statistics was then also gathering monthly data covering about 13 industries and about a half million wage earners. In the five years since that time great progress has been made. The Federal bureau has extended its collection until it now covers more than 50 trades and 2,000,000 wage earners. Four other States are in the cooperative plan with the Federal bureau besides New York and Wisconsin—Illinois, Massachusetts, Maryland, and California. In three others similar information is collected, but cooperative arrangements have not yet been made—Iowa, Pennsylvania, and Oklahoma. In addition, we have the facts about employment on the railroads, which are gathered monthly by the Interstate Commerce Commission and reported to the Bureau of Labor Statistics for inclusion in its Monthly Review; and the Department of Agriculture is experimenting in efforts to measure changes in employment and wages on farms. We are therefore in a very much more favorable position than in 1921, although 39 States are still without information for their own territory and very inadequate information is available for industries other than manufacturing and railroads. The facts now gathered are primarily a demonstration of the need for more facts.

The primary recommendation of the committee on unemployment and business cycles was that more adequate statistics should be

gathered. Included in the data needed were statistics of employment and earnings. These statistics of employment consist simply of a monthly report of two facts—number on the pay roll in a given week in the month and the total pay roll. If these facts are reported by a sufficient number of firms in a given industry and in a given locality to be a fair sample, they answer the question "What change has taken place and how great has the change been?" They do not answer the question "How many are out of work?" although it is possible by using the census figures to arrive at some sort of estimate of the number laid off or taken on when the monthly reports show the extent of change in representative plants. The figures do not measure part time or overtime, except in so far as changes in average earnings, unaccompanied by a change in wage rates, indicates some change in volume of employment. Finally, the data on earnings are of importance in showing changes in the income of wage earners.

If used properly, this information conveys to employers the average condition in their own industry and enables them to measure the facts for their own plants against the background of a given industry. It also enables them to know the trends in the businesses from which they buy and to which they sell.

These statistics of employment and earnings have a great advantage compared with other measures of business activity. An index of production, for instance, is expressed in a particular unit for a given industry—so many tons, for example. Comparison between different industries, as an automobile factory and a coal mine, becomes difficult. Comparison between different branches of economic activity, such as farms, department stores, and textile mills, is also almost impossible by any measure other than employment. But the number of wage earners employed is a measure common to all branches of business.

By way of illustration, let us review the most recent reports on employment and earnings and the general condition of business. I have here bulletins from the Federal Bureau of Labor Statistics, the Department of Commerce, the Federal Reserve Bank of New York, and the State departments of labor in Illinois, Wisconsin, and Massachusetts. The Bureau of Labor Statistics reports a decrease of 1 per cent in employment in manufacturing industries in April as compared with March and a decrease of 1.9 per cent in the totals of pay rolls. Taking the average of 1923 as 100, the index of employment for April is 92.8 per cent as compared with 92.1 per cent for April, 1925. Apparently manufacturing is in a slightly better condition than a year ago, but is still below the average for 1923. The index of the total pay roll was 97.2 per cent as compared with the average for 1923. In other words, earnings show a more satisfactory condition in comparison with number of employees.

These figures apply to the country as a whole, but there are differences between different sections. The Pacific Coast States gained 3.9 per cent in employment, but New England lost 4.1 per cent. This illustrates the need for information not only for the country as a whole but for different areas. It does not directly help the New England textile workers and the employees in boot and shoe factories in Massachusetts to know that wage earners in California are prosperous. The problem of fluctuations in employment must be studied

in the industry and in the locality where it occurs, although obviously its relation to all other branches of business and to the other sections of the country must also be known.

Nor is it sufficient to know the facts for an entire State. In factories in Massachusetts, for instance, in April the number of employees decreased 2.5 per cent and the average earnings decreased 2.5 per cent, but in the boot and shoe industry 7.6 per cent of the employees were laid off in April as compared with March. The average weekly earnings per person were \$24.81 in March and \$24.20 in April, but in the electrical industry the weekly earnings decreased \$2.47 per person, and in Haverhill, although the number employed showed little change, the average amount in the pay envelope was \$3.84 a week less on account of part-time employment. Massachusetts is one of the few States which publishes facts about employment by cities, and this one report justifies this detail by showing at what points the problem is most crucial. Otherwise favorable employment in one industry or one locality would offset unfavorable conditions in another industry and another city, thus obscuring the picture of the state of business.

The report for Illinois shows a very small decrease in factory employment for the State as a whole (three-tenths of 1 per cent), but in Rock Island, where the manufacture of furniture and agricultural implements predominate, 3.7 per cent of the workers were laid off, while in Moline, with its metal and machinery plants, the forces were increased. Although the facts for Illinois as a whole seemed satisfactory, it was nevertheless true that in the State employment offices 129 persons registered for every 100 jobs open.

These are merely stray items selected from these reports by way of illustration. We could go very much further in analyzing the data, but the important point to note is that if the facts are available for different industries and for different localities they constitute warning signals which should stimulate the managers of business to attack the whole problem of fluctuations. Irregular employment and unemployment affect adversely not only the employee but also the employer, the investor, and the consumer. It is a terrific waste of labor force. Probably it is the most fundamental problem of business in which the interests of various groups are identical. In the length of the working-day and in wages interests diverge. Over any given proposal for increase of wages and for decrease of hours a contest develops, but everybody is concerned with making employment more regular. It is not a good thing for plants to lie idle, and it is not a good thing for wage earners to be idle. Nor is it good for the consumer to have to pay the cost of maintaining those idle plants. Finally, it is a very bad thing for the employer when his ultimate consumer, the wage earner, is out of work and out of wages.

The recent interesting study of profits, issued by the Pollak Foundation, shows this dilemma. If large numbers of wage earners are out of work and unable to make purchases, that condition is likely to be the beginning of a depression extending far beyond the business which first laid off its workers. Because these workers are unable to make their normal purchases or to pay for them, it is probable that more workers in other industries will shortly be in the same condition, and if purchasing power as a whole declines production must sooner or later be lessened or stop. It is a vicious circle, and the place to

break into it is clearly in the individual business and in each industry by first studying the facts as to time and severity of change and the reasons for it.

Although managers of separate businesses have been able to accomplish a great deal in regularizing their operations, studies of the business cycle show that it is not sufficient to deal with the problem in a single establishment. Industries must be studied in their relationships one with another. The good results of these studies are only beginning to show. The Harvard Economic Service has recently referred to the trends in business in the last five years as the "regulated" business cycle. Business men are using the information, Federal reserve banks are publishing it in their bulletins, and the newspapers are commenting on it widely. The situation offers an opportunity to State departments of labor to render a service which business men will welcome, while at the same time contributing to the task with which State departments of labor are intimately concerned—the increase in security of employment for wage earners. State departments of labor are already interested in reducing lost time through employment exchanges to connect the wage earner out of work with the job needing a worker. Statistics showing changes in employment throughout the State constitute a guide enabling employment exchanges to do their work more effectively; and the two forms of service in relation to the problem of lessening unemployment are closely related and indeed dependent upon one another. Moreover, the employment exchange can not create work where none exists, but if through the wise use of statistics business managers can make employment more regular, the ultimate practical purpose of the employment service to bring about a better organization of the labor market will be achieved.

As one result of the work of the committee on unemployment and business cycles, the American Statistical Association appointed its committee on governmental labor statistics, to which I have already referred as including in it so many statisticians in departments of labor and other governmental bureaus. The purpose of this committee was to bring about agreement on the form of collection and presentation of statistics of employment and earnings and to undertake the extension of the plan which was then in operation between the Federal bureau, New York, and Wisconsin. The committee has been fortunate in including in its membership the men who were actually collecting statistics of employment or who might become responsible for their collection in different State and Federal bureaus. It has also had on it men who were using these statistics in universities, in banks, or in business establishments. The Russell Sage Foundation made a small appropriation for the work of the committee, enabling its members to meet at regular intervals and sitting around the table to thrash out the practical problems of collecting these figures.

The result of all this discussion and experiment has now been gathered in a book on Employment Statistics for the United States, which is about to be published by the Russell Sage Foundation. It is designed as a practical handbook, in the hope that it may enable any State department of labor to set up its scheme, secure in having before it clearly formulated the past experience of bureaus which have been collecting the facts for as long as 12 years.

The book has two parts. Part 1, Recommendations, outlines a plan for national collection and the uses of employment statistics. Part II, Methods, contains the following chapters: Sources of employment statistics; how to collect pay-roll statistics for manufacturing industries (size of sample, selection of representative firms, securing the cooperation of firms, interval between reports, form of questionnaire, and other practical details); how to collect pay-roll statistics for industries other than manufacturing (mining, transport and communication, construction, trade, agriculture, and others); how to tabulate pay-roll statistics; how to build up an index of employment or earnings; publication of results; and procedure used in a representative bureau.

The committee has given special attention to the problem of classification of industries. I need not describe to you either the difficulties or the need for a uniform plan of classification to be used in all the statistical work of State and Federal departments of labor. You have discussed this question in considering the report of your committee on statistics. In this handbook on statistics of employment, the various classifications are presented—that used by the census, the one now in use by the Federal Bureau of Labor Statistics and some States in presenting data on employment, and the proposed classification based largely on the groupings now appearing in the census. As the census presents the most inclusive data on industry, which must be used in selecting a sample for various industries and for different States, it is obviously necessary that the classification of employment statistics should have some relation to the groupings adopted by the census. In the report of the committee, a column also shows the international classification which is being developed by a committee of statisticians called together by the International Labor Office. Just as we are discovering in this country the impossibility of adequately dealing with problems of employment and earnings in any one establishment or any one industry apart from all others, so we are learning that the conditions of business of any one country are affected by conditions in other nations. The statistician is concerned, therefore, with sufficient uniformity in classification to make possible a view of economic conditions as widespread as the forces which affect business.

Incidentally, it is important to point out that employment statistics collected monthly are of use in measuring exposure to industrial accidents, but their usefulness for this purpose will be limited by the clarity of classification of industries. The statisticians concerned with industrial accidents and those who are collecting employment statistics will certainly find it to their advantage to attempt some agreement.

The suggestions made by the committee on governmental labor statistics in this report are published as a basis of experiment, in the hope that its use in different States will insure an increasingly satisfactory classification on which agreement can be secured. The collection of the figures on employment statistics is not a highly technical statistical process. Nor is it expensive. Probably no piece of work which could be undertaken by a State department of labor would yield so large a measure of satisfaction to the people of the State with so small an expenditure of money. The figures are simple in themselves. When the problems of selection of sample and classification

have been dealt with, the task of tabulating and preparing the figures for publication is not highly technical.

As to the relation between the States and the Federal Government in the collection of employment statistics, a plan is already in effect in six States. Take, for example, the New York bureau, which was the first to collect this information. New York collects what it needs from its own manufacturers, and then sends to the Bureau of Labor Statistics at Washington such a proportion of its returns in each industry as is needed for the national total. As the New York State Department of Labor is geographically in closer touch with its own manufacturing firms, it can reach them quickly by telephone or telegraph if the returns are belated, or the factory inspectors can make personal calls to hasten the reports. The Federal bureau sends no questionnaires to New York manufacturers. This avoids duplication in reports. The advantage to New York State in making its report to the Federal bureau is that through the Federal bureau and the cooperation of other States a broad view of the country as a whole can be gained, thus enabling New York to interpret its own business conditions with greater insight.

The plan also contemplates cooperation between the various Federal departments. It is based upon the idea that certain departments in the Federal Government have contacts with industries which should enable them to gather the figures more conveniently. The Interstate Commerce Commission can secure the information for the railroads, the Bureau of Mines for coal mines, the Department of Agriculture for farms, but in order that readers need not coordinate the material from so many different sources the recommendation is that the Federal Bureau of Labor Statistics should gather it all together and publish it.

Does not the whole problem of fluctuations in business offer a unique opportunity to State departments of labor? Business men are using the facts about stock-exchange operations, interest rates, prices of commodities, and rate of productions, and these facts are given out in the newspapers as indicative of our prosperity. Is it not incumbent upon State departments of labor to protect the interests of wage earners and to insist that the picture of economic conditions must include as its most important feature the condition of life of wage earners? This condition can not be measured only in rates of production or in wage rates. Much of the public discussion is based upon the prevailing idea that wages are high, and the figures quoted by way of illustration are usually the rates paid by the hour or by the week. The more vital fact for the wage earner, and also for those from whom he makes purchases, is the regularity of his earnings throughout the year. This item of annual earnings receives too little attention. What good does it do to get a high daily rate if you receive it only six months in a year?

We must also know the buying power of the dollar, not only in terms of wholesale prices but in the retail prices actually paid by wage earners for the goods and services needed in a family. Moreover, we must know what sort of balance is kept between the income of wage earners in different industrial groups, and more particularly, in a country so largely agricultural as is the United States, we need to know how the earnings of farmers compare with those of

industrial workers. Farmers and industrial workers must prosper together.

When the facts are gathered for enough industries and enough localities to make the picture complete, we shall need careful analysis to show why one plant keeps its force steadily the year around while another lays off its workers. In times of prosperity the opportunity is afforded to find out how to prevent unemployment. We had the same basic conditions—natural resources and the well-known efficiency of both managers and wage earners in American industry—in 1921, in 1914, and in 1907, but these alone did not prevent widespread and disastrous unemployment. What is needed is constant study of the problem of making employment regular. Prosperity reflected in the money market and in the earnings of a few may be illusory. The only sure test of prosperity is the opportunity for every wage earner to continue to have work and wages throughout the year. This has not been attained in the United States, but there is great promise that the problems will be wisely studied if governmental labor bureaus will provide more adequate information and stimulate the business men with whom they deal to make use of it in guiding their policies and in regularizing the opportunity to work for their employees.

#### DISCUSSION

Mr. BRACH. Speaking for the State of Ohio, having had considerable to do with the collection of statistics on employment in the State of Ohio, I am very much interested in Miss Van Kleeck's paper, of course, and I am in hopes there are other men in this room who have charge of employment statistics who might be interested as much as I am. I might say further, in the State of Ohio we have a special law which provides that statistics must be collected in a satisfactory manner. I have realized for some years past that this law does not come up to the times. I don't know how much experience some of you folks have had. I know it is quite difficult to change something or change an idea, especially so when you must receive such changes from a legislative body, but having that in mind I know the employers in each State in which there is any industry are all interested in the collection of statistics. Statistics of a year and a half or two years old are absolutely no good. We in Ohio have considered this proposition for some time. I am not absolutely sure, but almost certain, that Ohio will be one of the States that will endeavor to gather statistics that way. We may eliminate much trouble for the employer. I will venture to say that in the State of Ohio there are several organizations trying to collect some certain data. If the organization needs to get statistics or facts they immediately go about preparing a questionnaire and just send it to the employers. The employers are so tired of answering so many of the questions that a good many of these questionnaires go into the waste basket. Under this system of collecting the employer will know there will be only one of the questionnaires to make out. The Federal branch in this State does some collecting; even the University of Ohio is endeavoring to collect some data. It will mean the employer knows every month he is required, or is going to be asked, to make out a report and that report is the only one he will have to answer. I know there

isn't a day passes without my receiving a letter of inquiry as to employment statistics. The department also has free employment to look after. We at this time take the records from the year's report and we are unable to see what the condition will be, comparatively speaking, for another year. When the employer needs that information I know when I answer his letter he is not going to be satisfied with those statistics. Sometimes we feel ashamed to give the employers information of that kind. I fortunately have in my office the book Miss Van Kleeck spoke of, and it is very instructive to anyone interested in statistics as they should be gathered in current figures monthly. In Ohio I don't know that it is necessary that the law be changed, but we receive in Ohio reports from 35,000 employers every year. That would not be necessary. If we have a report from fifteen or sixteen hundred we would get a fair average of employment conditions. The law provides that every employer furnish these statistics. Some employers have only two or three men and it is a waste of time. I am sure in the future, as far as I am concerned, if I can bring it about there will be a collection of that kind of statistics. You can say I am absolutely sold on that proposition.

Mr. HALL: I agree with Mr. Brach. There are several practical questions which have occurred to me. Usually departments of labor, as most of us know, have inadequate appropriations. We have pressing programs; some are much more pressing than the question of employment statistics; it is a matter of life and death in many cases. We find, as Mr. Brach said, there are duplications of statistical questionnaires; consequently we sometimes receive Federal questionnaires in our office. Sometimes the Federal Government receives State questionnaires in its office. The employer gets fed up with the questionnaires and consequently consigns a good many to the wastebasket. The Federal Reserve bank has been gathering some statistics; it has plenty of money to gather statistics with. It strikes me that the employer himself does not cooperate with the department of labor in the various States until some pressing problem of his own arises; then he comes to the department of labor and wants this information at once. When you send him a questionnaire it lies on his desk several months before he answers it. There is no law to compel him to answer unless you haul him into court. It strikes me if this question was presented by Miss Van Kleeck to the employers as forcibly as it was presented to this association, it probably would reach the proper sphere and get the proper cooperation. In other words, if the industrial barons want this information let them cooperate with the department of labor and the labor group and help them get cooperation. We of the smaller States haven't an adequate appropriation like the larger and more progressive States of Ohio and New York, and it strikes me it is a matter of education among employers. Go to them and tell them what they have to do.

Mr. WOOD. May I ask a question? Miss Van Kleeck refers to "we." Who are "we"? Are we a Federal department or are we a private institution? We would like to have that information.

Miss VAN KLEECK. I don't remember saying "we." I am speaking for the country as a whole.

Mr. WOOD. Who are we?

Miss VAN KLEECK. I should say you are a State department of labor.

Mr. WOOD. Do you want me to go to the Federal Department of Labor or to the Russell Sage Foundation?

Miss VAN KLEECK. To the Federal Department of Labor.

Mr. WOOD. We know the conditions with which we are confronted and our appropriation better than an outsider and what it would cost to do it. It is absolutely impossible for us to make a monthly report. I say that advisedly because I know. I represent both Government and State. I know what expenses incidental to that are. Another thing—Brother Hall has very wisely stated it—is the undeniable fact that the requests for information about unemployment usually come from those opposed to the labor department. Not as a whole, but largely speaking that is true, and we don't get any cooperation from that source until some condition arises and they come and say, "Save us, Lord, or we perish." That's a fact; those are absolute facts. The smaller States are confronted with that more forcibly than the large States whose appropriations run into thousands.

The CHAIRMAN. We are very fortunate in having with us to-day Mr. Martin Carpenter, of the Dennison Manufacturing Co. He is not advocating any plan for different industries, but is going to outline the manner in which the plan has been adopted and successfully adapted to the Dennison Manufacturing Co.

### THE UNEMPLOYMENT FUND

BY MARTIN CARPENTER, OF THE DENNISON MANUFACTURING CO.

First, what is the unemployment fund? The articles drawn up by the works committee and management for the control and use of the fund state, "The unemployment fund of the Dennison Manufacturing Co. is a sum of money consisting of funds set aside by the directors when business was good in order to help out employees during times when there is not enough work to go around." The vote of the directors in 1919 stated that the fund was set aside "to be used for the partial relief of the distress due to unemployment so long as the sum lasts."

Now, who shall be paid from the fund and when? Turning again to the articles, we find "any employee who has been six months with the Dennison Manufacturing Co. or its subsidiary corporations in any State or country whose laws do not provide for unemployment insurance, who is not on monthly salary or specifically employed in a temporary position, shall be entitled to share in the unemployment fund under the rules set forth."

"No compensation shall be paid from the fund for any unemployment period of less than one-half day at a time." No compensation is paid for Sundays, legal holidays, or overtime work; or "for any shutdown ordered or requested by civil or military authorities; or for any absences resulting from a vote, decision, or action by or disability of the employees individually or collectively. No compensation need be paid for time lost on account of acts of nature or on account of destruction of any of the company's property by fire." No compensation shall be paid for any time an employee might have been working if he fails to accept the job offered him temporarily. "If

there is a shortage of employment in any part of the plant," the plan provides that "the actual laying off of any employee shall be avoided as long as possible by temporarily transferring each employee for whom there is no work to other parts of the plant where there is work." In this case, "as far as the nature of the work will permit, employees with the longest service with the company should be transferred last." If the job to which they are transferred pays less than their regular work, with hourly employees, the full difference is made up from the unemployment fund. Pieceworkers are paid 90 per cent of their average earnings during the preceding six weeks. Whenever the piece earnings have fallen off during the six weeks through no fault of the employee, then the pay is based on the previous six weeks' period.

If after all possible steps have been taken to prevent unemployment by transfers "further reduction in output is necessary, employees may be laid off. So far as possible, a large number of people should be laid off for a short time rather than a few people for a long time." For such lay offs of half a day and over employees with dependents will be paid 80 per cent of their regular weekly wages and employees without dependents 60 per cent. In the case of pieceworkers, their average earnings for the preceding six weeks is used as the basis of determining their regular weekly wages. Thus an employee receiving \$30 a week regularly would receive from the unemployment fund \$24 a week if he has dependents and \$18 if he has no dependents.

The plan is therefore somewhat in the nature of coinsurance. That is, while the company assumes the responsibility for relieving most of the distress caused by unemployment, the employee also shares in this responsibility and has a direct personal interest in the steadiness of his own job.

As to what is meant by dependents, the articles state "Employees who have living with them children of their own under 16 years of age, wife or husband, none of whom are regularly employed for pay, shall be considered as having dependents. Any other employee may be considered as having a dependent provided he can prove that at least one person is dependent upon him for his sole means of support." All statements in regard to dependents should be in writing and signed by the employee concerned.

Employees who are laid off for lack of work are always advised to obtain temporary work outside, if possible. If such outside work is obtained, the employee will benefit, for he not only receives the wages from the outside job but if his outside job pays less than his Dennison job he will also receive an additional amount from the fund. The amount from the fund will be such as to bring his total wages up to 90 per cent of his regular Dennison pay, plus 10 per cent of the wage he is receiving outside.

This sounds rather complicated, but it simply means that if an employee's regular pay is \$30, and he gets an outside job at \$20, he will receive \$9 from the fund, thus bringing his total pay up to \$29.

If the temporary work is for less than 48 hours a week, the time less than 48 hours is paid for on the above basis; the balance of 48 hours is paid from the fund as straight lay off. Any time over 48 hours which the employee works belongs to him.

Employees who are laid off for over six days at a time are required to report to the company once a week as to their success in obtaining outside work. In case they accept a permanent job outside, their compensation from the fund ceases.

All the provisions for payments from the unemployment fund apply "so long as the total amount of money in the fund shall not fall below \$50,000 and the total disbursements during any 12 consecutive calendar months do not exceed \$50,000." Whenever the fund falls below \$50,000 or the total payments from the fund for any 12 consecutive calendar months exceed \$50,000 "no further disbursements shall be made from the fund according to the rules and rates provided until the works committee and management reach a new agreement, or else the lapse of time or additions to the fund may remove the \$50,000 restriction."

The control of the unemployment fund is in the hands of a committee of four, appointed each year, two by the general works committee and two by the management. The present committee consists of Edward M. Eldridge and Joseph A. Kellcher from the works committee and G. W. Fromant and W. E. Murphy from the management.

The unemployment plan also protects an employee against unjust discharge for lack of work by providing that employees may be discharged only during periods of unemployment in case they fail to measure up to Dennison standards of efficiency, skill, and reliability; in case they were only hired temporarily; or in case "the volume of work of a certain class is, so far as can be seen, permanently reduced on account of changes in method, products, or market demands, and employees, on account of their specialized training or skill, can not be or are unwilling to be transferred elsewhere, then such employees may be discharged."

Employees discharged for inefficiency must be given one weeks' notice or one week's pay, and those discharged because of permanent reduction of work, two weeks' notice or two weeks' pay.

The unemployment fund committee has the power to decide all doubtful cases and to arbitrate all disputes in regard to dependents which can not be settled through the regular channels.

The question of unemployment and how it can be relieved is one of the important problems of industry to-day and many industries are working on its solution. There is in certain sections of the country a strong movement for State or Federal legislation to control unemployment. If the time should ever come when such legislation is passed, the articles governing the use of the unemployment fund of the Dennison Manufacturing Co. would automatically be suspended until they could be amended so as to conform with the laws without duplication of benefits.

#### PREVENTION OF UNEMPLOYMENT

There is another angle to the Dennison unemployment plan which is even more important. It is the prevention of unemployment. Any fund for relieving unemployment would soon be exhausted if no provisions were made for preventing unemployment during periods of depression.

This fact was recognized by the management several years before our present unemployment plan was put into effect and ways and

means of preventing unemployment were studied. As a result of this study vital changes have been made in our selling and manufacturing policies. A careful analysis of conditions over a number of years showed that at certain periods in each year, such as the few weeks before Christmas, there was a tremendous rush of business. Orders were pouring in, customers were clamoring for delivery, and production facilities were taxed to the limit. After the rush was over, there was invariably a lull in business. Orders dropped off and it was sometimes difficult to find enough work to keep the factory going until the next rush period came.

It was this seasonal condition of demand and supply, therefore, which was the chief cause of unemployment every year.

The first step then in this attempt to prevent unemployment involved a change in the selling policy of the company, in order to get customers to place their orders well in advance of the season for which the goods would be required rather than a few weeks before as had been their practice. Now, this was not an easy task for the selling force. It meant that they had to convince their customers that it would be to their advantage to place their orders early because they would be sure of delivery on time and of better quality goods. We all know how hard it is to persuade a person to change any long-established method of doing a certain thing. That was just the proposition the salesmen were up against in changing the buying habits of their customers. If our sales force had not attacked this problem whole-heartedly and put forth their best efforts, it would not have been possible to accomplish anything like the results that have been accomplished.

Take boxes, for example. Customers had always placed their orders for holiday boxes late in the summer and no one had ever thought that orders could be obtained any earlier. The result, of course, was a tremendous rush until Christmas and then invariably an immediate slump. To-day a good proportion of the holiday orders are placed early in the year. In fact, some customers now place their orders a year ahead; that is, as soon as Christmas is past they figure up their requirements for the next Christmas season and place their order immediately. By having orders placed far ahead, it is possible for the factory to plan in such a way as to keep production at a fairly even level throughout the year.

But this was not sufficient to insure constant production. It was necessary to go one step further and increase the number of nonseasonal orders with long delivery time—another stiff problem for the selling force. Again they had to go out and bring forth all the arguments they could muster to convince their customers that it would be advantageous to them to estimate their requirements for regular stock items—tags, crêpe paper, labels, and the like—and place their orders well in advance of the time they would be required and with the understanding that they would not be delivered until required. Thus a customer might order 50,000 tags on June 1 to be delivered October 1. By so doing he will be practically certain of delivery on time and, furthermore, of best quality goods.

There was still another necessary step in this process of balancing production with demand and that was the building up of more "out of season" items. This meant creating a continuous all-the-year-round demand for items which had been distinctly seasonal in character;

that is, used for certain seasons only in the year. For instance, boxes had been used chiefly for holiday purposes. The problem then was to convince that boxes could be used all the year in various ways. It was a problem which taxed the ingenuity of the whole selling organization, for this not only involved selling the customer something that he had never felt the need of before but creating the need. It involved a complete study of each customer, of his business, of advertising possibilities, in fact all the problems connected with his business. And then it took strong selling effort to persuade the customer that he needed something without which he had succeeded before.

Here again the selling organization put their shoulders to the wheel and succeeded in building up a line of "out of season" items which have helped to keep the factory running.

But the burden of responsibility was not entirely on the selling organization, though without their cooperation the results accomplished would not have been possible. It takes orders to keep the factory going and first of all the orders must be secured. Thus a good selling force is absolutely essential. The factory has an equal responsibility, however, for it must produce and deliver the goods. So another big problem was studied—how to increase the efficiency of the factory by keeping work going through in a steady, even flow. This really was a question of planning the work, which, after all, is the secret of operating any business successfully. Production could now be planned far ahead, because orders were placed in advance. Furthermore, based on previous experience, it was possible to estimate production requirements some time in advance; that is, make up certain items for stock and also items such as boxes and labels which are used by the different departments in the factory. All these items could be made during periods when the usual lull in outside orders occurred. This also meant that the production facilities were not buried with orders ahead, and when special orders came in they could be taken care of promptly.

Then, too, there is another method of preventing unemployment in periods of depression especially. We all know that business does not run at an even rate year in and year out. When business is good all factories are working at full capacity and in dull times there are numerous lay offs and shutdowns.

We try to maintain a fairly even flow of work through good years and bad. Our problem, of course, is to secure enough business in poor years to keep all our employees working.

This is accomplished in various ways. New items are added to the line and the making of these new products creates more work for the factory.

Advertising in times of depression is always increased. This means an increased demand for our products and consequently more work. To help keep the factory going, more salesmen are added to our force throughout the country in bad times. Besides these three ways of helping to build up business in slow times, we also manufacture larger quantities of goods for stock. Prices are reduced also, and this helps to bring in more business.

Thus by studying conditions and experimenting, first in one direction and then in another, by reducing seasonal orders, by increasing

nonseasonal orders with long delivery time, by developing out-of-season and new items, by long-range planning, by increasing advertising, and by manufacturing larger quantities of stock goods a fairly even flow of work is now maintained throughout the year, which in turn has lessened the chances for unemployment. It has been a process of gradual development which is still going on. It required persuasive and convincing salesmanship, careful and judicious planning, balancing the work of one department against another, following conditions closely, profiting by past experience, but it is all directed toward the solution of the problem—the prevention of unemployment. As the old saying goes, "An ounce of prevention is worth a pound of cure." So any measures which help to prevent unemployment are in reality worth more than the measures to relieve unemployment, for in the latter cases everybody loses something, but in the former they have everything to gain—the company, because regular production means lower costs, better quality production, and increased profits; the workers, because regular production means steady employment, relief from the worries which lack of work cause, and a general sense of well-being.

### DISCUSSION

The CHAIRMAN. I thank Mr. Carpenter on behalf of the association. I certainly would like to see the plant operated by that company. It is a contrast to the lack of interest shown by our companies in their workers. It is surprising to me to find the lack of interest as to what becomes of thousands or hundreds or scores hired one day and discharged a week or two later. We have no Dennison Manufacturing Co. in Canada to my knowledge, but I feel sure this idea will grow there until there is some attempt to work out the scheme of unemployment insurance. Whether for the country as a whole or by industries only time will tell.

Mr. WOOD. Do I understand you to say the employees do not directly or indirectly pay into that fund?

Mr. CARPENTER. Yes; not a cent.

Mr. WOOD. I am going to commend you for that.

Mr. HALL. Have you any comprehensive data relative to the cost of your unemployment fund and your labor turnover before you inaugurated that feature?

Mr. CARPENTER. The trouble with the Dennison Co. is we put in several features such as department features in 1919, and the unemployment fund in 1920. I know our labor turnover dropped in 1925.

Mr. HALL. In other words, the Dennison Co. finds it profitable to have this unemployment fund?

Mr. CARPENTER. Yes; it is not from the standpoint of philanthropy. It does it because it considers it good business.

Mr. HALL. Is it welfare business?

Mr. CARPENTER. No, sir.

The CHAIRMAN. Some concerns feel they are giving something for nothing when they inaugurate some feature which really is a matter of justice and economic right and a matter of good business. Some time ago there was a change in the management of the public employment bureau in Richmond and Capt. T. S. Wharton was made manager of that bureau. From my knowledge of employment work

in Canada and United States I want to tell you Captain Wharton has quickly grasped the situation. For that reason the officials have asked him to tell us how to secure the confidence of employers. There is no more important work than securing the confidence of employers, and I take great pleasure in calling on Capt. T. S. Wharton of Virginia.

### SECURING THE CONFIDENCE OF THE EMPLOYER

BY T. S. WHARTON, MANAGER PUBLIC EMPLOYMENT BUREAU, RICHMOND, VA.

My two years' experience has been entirely confined to Richmond and vicinity, and this is the first employment service conference that I have ever attended. Under the circumstances, my ideas and opinions are based largely on conditions as they exist in my own locality. However, since entering the service I have read many bulletins, reports, and papers from other offices and have found by study and comparison that while each of us may have to overcome some difficulties that are characteristic of our own particular locality there is a great similarity in the general problems that we face and that which is helpful or of interest to one of us is usually interesting to all.

At the close of my paper I shall be glad to exchange ideas and answer any questions.

Securing the confidence of employers is the greatest problem, the hardest task a public employment service official has to cope with, and when he has solved that problem he has achieved the one thing which guarantees success.

We do not have to solicit applicants, job seekers are everywhere, and in the great army of the unemployed the ranks are always recruited up. True we are occasionally unable to supply a particular kind of specialist without some effort, but generally speaking we do not have to search for our applicants. That is one of the essentials of the service that is supplied for us. But we must have employers' orders, for without them there can be no service. We can not tie the man up to the job until we have a job to tie him to. And we do not get the order from the employer unless we can convince him that we can supply him with applicants capable of performing the tasks incident to the position which he has to offer. In short, we do not get the employer's order until we have gained his confidence, until he is assured we can render him a real service, and without his order we can not serve anyone.

No man can successfully sell to others a product in which he himself does not believe, and unless we really have a deep and abiding faith in the service and like the work we can not possibly have the enthusiasm and determination to surmount the many obstacles which continuously confront us. Every man and woman in the public employment service, from the director general down to the humblest file clerk or errand boy, should have confidence in the service. All assistants employed in any capacity should be trained along this line and the principles of the service so instilled into them that by their efforts to serve and by their contact with the people they will command the confidence and respect which the service so richly deserves.

In presenting our case to the employer it must be made clear to him as purely a business proposition. He must be assured that the employment bureau is not a charitable institution and that the qualifications of the applicant is the first consideration. When we offer the service to a new prospect he, in most cases, immediately becomes skeptical; it is something for nothing we offer and he wonders where the joker is. He begins to suspect that we have a lot of incompetents or misfits which we hope to unload on some one, or he feels that while we do not ask him to pay in cash there must be obligations of some description which he must assume.

We have known employers who felt that the employment service was just another of those departments created to provide places for the political faithful as a reward for party loyalty and campaign activity. Others are using the same employment system which has been in effect in their organizations for the past 20 years and do not hesitate to tell you that they are well able to handle their own employment situation without assistance from the outside. These men are not keeping up with the times; they are habitually opposed to any of the "new fangled efficiency ideas" and resent our offers of assistance.

It is our job to meet and overcome the many objections, to correct the mistaken ideas, and to show the employer that the bureau is operated as an exchange for facilitating the meeting of buyers and sellers of labor; that with his cooperation our office can be used as a clearing house and that by letting us supply his employees he assumes no obligation whatsoever; that with the assistance of our experienced, trained, interview clerks we can relieve him of the weeding-out process and will refer to him only such applicants as are qualified to meet his needs; that our facilities for service are far-reaching and we can in many instances save the employer much valuable time and expense of advertising.

This can best be done by a consistent, aggressive campaign of education as to the duties and possibilities of the office to render a real service to the employers and applicants needing our assistance. Employment bulletins, issued either monthly or semimonthly clearance bulletins, press reports of activities, publication of statistics, broadcasting the desire to serve, letters and circulars, and personal contact all help in this campaign of education. However, the best results are obtained by personal contact, because we are in a position to answer questions, meet criticism with facts and figures, and to combat objections with direct argument in a manner that would be quite impossible by correspondence.

If the service is sponsored by the various civic organizations of the city, which usually include the progressive business men, it can readily be seen that with their lead others will accept the service we offer. To secure this lead, an employment service official should, if possible, affiliate himself with such organizations and through personal contact keep the service ever before them. However, if he is not a member, he can by personal visitation and perhaps short addresses acquaint them with the advantages and value of the service.

Everyone who is aware of the existence of the public employment bureau knows that we can furnish unskilled workers and common laborers in large numbers, and the majority of the people have the mistaken idea that this is the only class we do handle. To correct

this erroneous impression, particular stress should be given to the clerical and professional and skilled classes on all bulletins, circulars, and advertisements. In the Richmond office we attach an extra sheet to each of our monthly bulletins, on which we list a brief synopsis of the qualifications of six or eight of our best clerical and professional applicants for the specific purpose of bringing to the employers' attention the high type of person whose applications are on our file.

When soliciting a new prospect, it often helps quite a little to show him a list of some of the larger concerns to whom we have been supplying help and perhaps to let him read a few letters of appreciation commending the service. He may be of the opinion that we can not readily supply the class of help he needs, and at this point we can show by our statistics just how many of that certain class we have handled and satisfactorily placed. He must be assured that he is not obligated to accept applicants referred to him. We will send only such persons as we feel reasonably certain will suit his requirement. Of course, the final selection will be his.

When we have succeeded in showing the employer how the service can be of benefit to him and he has agreed to give us an order, it must be explained that unless he informs us in detail the exact nature of the position offered, the age, size, and personality of applicants desired, duties to be performed, wages he is willing to pay, hours of duty, etc., we can not render him the best service.

I feel it may not be amiss to relate here a recent experience which might tend to serve as an illustration. Last December a manufacturing concern established in Richmond a large branch factory and it was made known that 500 female and 200 male factory workers would be employed. About 10 days prior to the opening of the factory the company's employment superintendent opened his office and began receiving applicants. A representative of the public employment bureau called on this gentleman, offered his services, and requested a few minutes in which to explain the advantages of the service. The factory superintendent in no uncertain terms made it quite clear that he felt fully capable of handling his own employment situation without help from the outside and he was too busy at that time to discuss the matter at any great length. However, he dismissed our representative courteously and stated his willingness to hear about the advantages of the service at some future date. The name of this factory superintendent was at once placed on our mailing list and copies of each bulletin, circular, and other publications were sent to him regularly. Whenever the employment bureau representative was in that neighborhood he would drop in for a moment, leave his card, and without trying to force our service on the factory would casually repeat our offer of assistance. This was kept up for several weeks and in the latter part of April this factory telephoned in an order for 10 or 12 men to operate a certain kind of machine. The manager of the bureau immediately made a special trip to the factory superintendent, thanked him for the order, and requested certain details concerning requirements of the order which had been given over the telephone to the clerk in a rather reluctant manner. It was fully explained why these details were necessary. In less than two hours after the order had been received, 12 suitable applicants

had reported to the factory. That afternoon we called to ascertain if the men had reported and if they were of the type desired. Every one had been accepted; the superintendent was very favorably impressed with the promptness and dispatch with which his order had been handled, as well as with the type of men that had been referred to him. He told us it was the first time since he had opened his office in Richmond that he had not been compelled to reject at least 50 per cent of the men who applied. He then told us of the difficulty he was experiencing in securing the type of female help he needed. In response to his newspaper advertisements his office was flooded with applicants each morning and only a small percentage of those who came were of the type he wanted. He often interviewed a dozen women and selected only two or three. We asked him to use our women's division and explained to him how we could save him the time of needless interviews by doing the weeding out before we referred the applicants to him. He agreed to give us a trial and said we might send him a dozen young women the next day. We sent 15; 13 were accepted and 2 were rejected because they could not pass the physical examination which is given to each girl employed by the company. But the superintendent was satisfied with our service; we gained his confidence and we now have a standing order with that company. We not only furnish him with factory help but have succeeded in placing office workers and cafeteria help in the plant.

When the order has been received, we must prove our "selling talk" by the service we render. The interview clerk must be thoroughly acquainted with the requirements of the order and must make a careful selection of the applicants before he refers them to the employer.

The many phases of the service are so closely related and interwoven that I find it difficult to stick to my subject without encroaching upon others, but I feel that too much can not be said about effective methods of interviewing. An employment service worker must have executive ability, must be patient, tactful, and courteous, and must develop a broad understanding so that he will be able to see things from the point of view of both the employer and applicant. A realization of the importance and dignity of the work and bigness of the problem is necessary.

Wherever possible, interview clerks and assistants should visit the plant and familiarize themselves with working conditions and the duties to be performed. Finding time in a busy office for essential outside work is in itself a great problem, but the time it takes to make such visits will be profitably spent. It is necessary at all times to have at hand general information concerning vocational opportunities, and this can be done only by keeping closely in touch with various firms, studying their working conditions, learning the requirements of the various positions, etc. We may receive an order for a first-class plumber; the interview clerk or registrar probably has never handled a pipe wrench and the phrase "wiping a joint" means the same to him as if it were spoken in a foreign tongue. Our office in Richmond meets the problem in the following manner: Interviews were arranged with the master craftsmen of the various labor unions and this question was asked, "I want to employ a first-class plumber (or carpenter, machinist, or other classes, as the case might be), but I know nothing of the business. To ascertain if he is a capable man,

what essential questions should I ask him and if he is what he represents himself to be, what answers should he make?" In each case we received hearty cooperation and full information. With this information always at hand the interview clerk can intelligently examine each applicant and determine his qualifications.

It has been said that the final test of the bureau's efficiency is its quickness and dispatch in getting the right man to the job in response to an employer's call for help, but where the requirements are strict and the early applicants do not entirely measure up to standard it is better to delay fulfillment of the order a reasonable time until a suitable applicant is found rather than to refer persons who stand an even chance of being rejected. We can not possibly eliminate rejections entirely but by careful study of the requirements of the order and close investigation of the applicant's qualifications we limit them to a small minimum. We can not render good service to employers except by carefully choosing the applicants, and nothing will more quickly destroy the confidence we may have gained by great effort than a haphazard hit-and-miss selection. Should we find it impossible to fill an order promptly we should communicate with the employer, preferably by telephone or personal visitation, and explain the delay.

The interview clerk can not be too careful in choosing his applicant. Should we refer to the employer a man who does not possess the requirements which have been given us to work by, that employer immediately forms the opinion that we are either very careless or we do not know enough about our business to be of any real assistance to him. He will be dissatisfied with the service and in all probability will not hesitate to express his dissatisfaction to his business associates should occasion arise.

When the suitable applicant has been selected, he must be given as full information as possible regarding the conditions of the employment offered him, and unless he is perfectly willing to accept the conditions he should not be sent.

While our sympathy is with the man out of a job, we can not afford to let sentiment interfere with good business judgment. No matter how badly a fellow needs a job, unless he is thoroughly qualified to meet all requirements of the employer do not send him. Wherever the governmental appropriation makes it possible, a handicap division should be created or a good clerk assigned to the duty of finding employment for those unfortunates who are for various reasons handicapped. A spirit of cooperation should prevail between the employment bureau and the rehabilitation agencies as opportunities exist which are advantageous to both.

It should be made clear to both the employer and applicant that it is no part of our business to raise or reduce wages, regulate working conditions, or act as factory inspectors. We confine ourselves to bringing to the attention of the unemployed workers exact information as to the available jobs in the community and to the employers we refer workers who are fit for the jobs. The efficiency of the office is especially promoted by securing increased confidence of employers in the ability of the office to select the right man for the position and their consequent willingness to give detailed information regarding wages, paid and other conditions of employment in any position offered.

Even though the applicant referred has the qualifications to meet all the employer's requirements, he is not considered satisfactorily placed until we know he has been accepted and actually on the job. Unless the introductory card is signed and returned within 24 hours we should telephone the employer and ascertain whether the applicant was accepted or rejected. If he was rejected, find out just what qualification he lacked, check up on the requirements of the order again, and refer another man as quickly as possible. Keep fighting for that job until you fill it or exhaust every means at your disposal in the attempt.

Once the employer's confidence has been obtained, we must strive to keep it. This can be done only by rendering consistent good service. Each of his subsequent orders must be given the same careful attention which we gave the first. Frequent visits to his place of business and interest shown in his employment problems will convince him that the service is all we have claimed for it, that our desire to serve is real and unselfish, and the confidence he reposed in us has not been misplaced.

Do not promise the impossible. The service is a good thing and we know we can render invaluable assistance to employers of all classes of labor, but there are times when our enthusiasm is boundless and we must be careful not to exaggerate our capabilities.

To be a success the business of an employment office must be conducted in as aggressive a manner as any commercial undertaking and, as is true in all lines of business, a satisfied customer is our best advertisement. To satisfy our customers is to render them good service and the first essential of good service is to gain the confidence of the employer.

Fully appreciating my inability to do my subject justice, I can only say in conclusion that if I have mentioned anything which has emphasized the paramount importance of securing the employer's confidence or if anything contained in my paper has been conducive of additional thought along this line I will leave this meeting with the immeasurable satisfaction of having contributed something, even though it be but a little, to the employment service.

The CHAIRMAN. Captain Wharton has prepared a paper which really sums up in seven or eight pages all that a public employment office needs to know about the general public and the way an office must be conducted. If it is to be successful they should not be conducted as a philanthropic organization, and the confidence of the employer is necessary. We can always get the applicants if we have the orders, but we can not always get the orders. We are going to hear Mr. B. C. Seiple, Cleveland superintendent Ohio State Employment Service, tell us about employment work in Ohio.

### PUBLIC EMPLOYMENT WORK IN OHIO

BY B. C. SEIPLE, CLEVELAND SUPERINTENDENT, OHIO STATE EMPLOYMENT SERVICE

I had intended to follow some system of notes; I have changed my mind, because you have been here some time and have listened to the excellent papers presented, and also because the immediately preceding speaker has covered so thoroughly many of the things which we could say and apply to Ohio. I think his paper in its entirety could apply to Ohio as well as to Virginia, so I don't want to go back

over that. I am therefore going to destroy my notes and proceed just impromptu.

I think, however, to the folks here from other States it might be of interest to you to know just how the oldest State employment service came about, because Ohio is the pioneer in that field in the point at least of providing for such service by legislative action. Ohio is almost entirely an agricultural State. That condition was to have a rapid change because of Ohio's favorable location, centrally located not only geographically but from a point of natural resources. This was the place where iron ore from the North should meet with the coal and other products from the South. Small towns became large cities because of the opening up of large steel industries and manufacturing plants for steel products. Consequently there was a trend of population toward the city. As the cities grew, naturally the employment problem in those cities became greater; the larger the city the greater the question of distribution of employment. The exact man for the exact job may be available, but the difficulty is to find him. That is not true in the smaller towns, where everybody is acquainted with the industry. As this condition progressed of course some men found it profitable to act as a go-between. We have them listed now as private or fee charging organizations operating for profit. As these first men saw this class of work they saw an opportunity and grabbed at it. They conducted those agencies, as shown by the best records I am able to get, on a very honest, sincere basis. They served the public. The employer was glad to have their assistance; the applicant was glad to know of some place where by paying a few dollars he could secure a satisfactory position. Their service was worthy and it was profitable, and with any service that is profitable there is the attraction of other folks. Other agencies began to spring up; competition sprung up, and each office in trying to maintain a living rate and make some money was less inclined always to tell the truth; this led to misrepresentation and exploitation finally. The result was that the social agencies which we are sometimes inclined to belittle and complain of began to note these things, and in Ohio these agencies started to find out what might be done to relieve that. Nothing definite was done until it was called to the attention of the Ohio Federation of Labor. That body with its accustomed alacrity immediately began to investigate; once it was convinced things were not as they should be it found a means of correction.

In 1889 two bills were introduced in the Ohio State Legislature providing for the proper regulation and licensing of such agencies. Another was a step not anticipated by the folks, and that was the establishment of some centrally located agency supported from a public fund, an agency that would act as a medium between the man hunting the job and the job, and that without any direct opposition to the folks who had been previously charging. It always takes a couple of sessions of the legislature to bring a thing of that kind to pass, no matter how worthy. The folks want to go back home and see what their constituents think about it. It was in December, 1893, it was enacted. The problem then was to find out what department it should come under. Ohio being the pioneer was not able to go back and make a study; they had to blaze their own trail. The first office in Ohio had to be content to place only a few hundred laborers

in a year, and the ultimate result was hardly worth the amount of money spent on it. But the folks who had sponsored it continued to support it. They understood it must have time to get started. I won't endeavor to follow its progress from the time of its inception up to the entry of the United States into the World War, because it was just a matter of continual progress; there was nothing very outstanding, only a matter of progress slowly. However, when the United States entered the World War a very decided change took place and, as you know, a change took place in the lives of every man and woman in the country; every organization, every industry, every service, and the employment service was no exception. The Federal Government early recognized that to promote the progress of the war it was necessary to marshal not only the military but the working forces; that each man should be in his proper place, and the place where he could do most good for his country. I believe that was the only real actual motive for the establishment of the United States Employment Service. Nevertheless practically over night the United States Employment Service was created and in operation. Of necessity it was not well established. No criticism of the folks establishing it, but it was impossible to establish such an organization in so short a space of time. Of course Ohio at that time had seven employment offices in the large cities of the State. The operation under Government direction brought it up to 23 offices, 1 in each large center. The object was to find out just where the man power was—whether it was engaged in producing nonessentials or essentials. I am going to speak of the result right now. The employment service under Federal direction immediately began taking men from nonessential employment and taking them over to essential employment, which had been mounting. That caused a terrible time in the nonessentials, and that is the employer we had to deal with after the war was over. For a number of years after the conclusion of war we had to deal with the problem.

Let us look at the benefit under Federal direction. The service was expanding beyond the imagination of the folks; elaborate offices were laid out; the Federal Government was lavish with appropriations of money because it was the result they counted on. The offices were elaborate plants of equipment, plenty of help; good salaried men of high ideals were attracted to the Government jobs by reason of the good salaries, and as a consequence development was very rapid. Those things still remain, and they have been a help. I have mentioned one of the serious handicaps and another was at the close of the war when the Federal Government, feeling that the object was attained for which the service was put in operation, immediately withdrew their support. It was impossible with the small amount of appropriation in Ohio to carry on anything near the system which had been carried on before. We not only fell back to the seven original offices but those seven offices were demoralized because of reduction in salary and added equipment standing around in the way. I have gentlemen here who could tell you about that. The reaction from that meant that if we were to maintain in Ohio anything similar to the work done under Federal direction we must have increased appropriations, but we were confronted with the fact that employers were not satisfied. They looked upon the United States as an organization that had not functioned to their benefit; they were not for

us, and it was difficult to get increased appropriations, and it looked as if we were about to lose out. At the same time came the reaction from the war, and the tumbling back of thousands of men who had been called away, and the service apparently didn't function. Thousands of men and very few jobs. It was a great period; nevertheless the men who are in the employment offices of Ohio to-day are almost without exception the men who were in the employment offices during the time of the war and immediately following. They put forth their loyal efforts and sacrificed salary to high ideals for the service. I believe that the removal of this service from the spoils of politics is even more important than the increase of appropriation. Whenever a vacancy has occurred in the Cleveland office they have asked what person I wanted to fill the vacancy, and never asked the question is he Democrat, Republican, or Socialist? The point is, is that the best person for the position? I could prove that point by showing that half the folks that have been brought into my office since these men have been in charge of the office have been Republicans and the other half Democrats. Neither has any employee in any employment office been made to feel that his job was insecure because of his political belief. Because of loyalty to the office and broadmindedness and cooperation of the State officials, the service has come back, and to-day the State of Ohio, according to the records of the United States Department of Labor, leads all other States in the Union in the number of people placed in jobs, and has done that for months past.

We are saving the wage earners who are placed through our service more than half a million dollars each year. That isn't guesswork; it is based upon the minimum fee that is charged by private employment service for similar work. Even if expense to the State was greater than it is, the saving to the department of welfare and the saving in the penal institutions would probably offset it. I said to the financial committee of the legislature when they asked me where they were going to get a couple thousand dollars for which we were asking that we might raise the salaries of people who have been so loyal in our service, "You can knock off the money from the welfare budget and they will never know it and put it on the employment service side, and I guarantee you for every thousand you put over we will save five times as much for the welfare department by keeping those people out of our institutions." When you stop and think of the saving of the souls of men and the homes of men freed from idleness, discontent, and dissatisfaction, there isn't any argument. We unfortunately have to argue to our legislature. In Ohio we have very definite ideals for the employment service; we have our plans worked out, and all our offices work together. The 7 original offices have been extended to 12, with other cities clamoring for an agency, which they should have. Any city that desires employment service should receive assistance. We call it in Ohio State-city employment service. We feel in Ohio the State fund should not be given to any city. Therefore the State puts it up to the city; if it is willing to contribute its share the State will come in and contribute its share and retain the State supervision, which will insure a uniformity of action and reporting and proper compilation of statistics, which I think is absolutely proper. So much for the name "State-city."

The 12 cities are an increase of 5 over 7, with a number of cities clamoring for agencies, which I think we will endeavor to get at the next session of the legislature. We believe we have rebuilt the service because of several things which we have analyzed in conference.

Previously the Government offices in the various cities operated without knowledge of the other cities; people were not acquainted; one superintendent knew the other superintendent's name, and that was all. Under the present administration these conferences are called, like this meeting here to-day, and we discuss our problems jointly and all work in uniformity, and I believe through that cooperation we have improved the service immeasurably. We have recognized exactly what the previous speaker said, that without the cooperation of the employer it is absolutely impossible for us to fulfill the function the State intends us to fulfill. By that I mean the intention of the State was that this money should be expended solely for benefiting those who are unemployed, and not because we wish to benefit the employer; but in order to benefit the applicant we must do a service to the employer, and at this time comes in all that Mr. Wharton has said with regard to securing the cooperation of the employer.

I realize that anything I might say would not do the employment service in Ohio justification. It has been operating continuously over a period of about 40 years; to-day it is further advanced than ever before, not only in the point of number of cities being served but in the number of applicants being served. I have the figures from the State statistical department which show that for the last fiscal year ending June 30, 1925, the offices in Ohio placed in employment a little over 200,000 applicants. You are going to say, "Many of those were casual workers and part-time workers." Absolutely true. But to the man who is down and out, even a day's work is a godsend; even an opportunity to clean snow off the streets when there is no food in the house is not to be ignored. I have the figures here for 11 months, which proves that every year we are doing more work with the same appropriation and the same number of employees. The figures for the first 11 months of this year, compared with 200,000 last year, are 203,000, and we have a month to go. Every year the employers understand more and more what we are trying to do, and we are trying to find out what the employer wants. We are not fighting the fee-charging employment service. We are determined that we are going to give as good or better service for no fee and let them pull themselves out. This is not a charitable service. We don't want any contribution of funds from charitable institutions. We want to be an employment office. We want the idea to be his qualification for the job, not his need. Need of employment becomes secondary with us in each instance. We will give preference to a man who has been referred to us by a charitable institution only when everything is equal. That is the only way we can retain the respect of the employer. He is not concerned about who is down and out, for he would rather give him a ten-dollar bill than have a man who does not fit; and why send him a man who does not fit when we have somebody who does fit? This is employment, not charity.

We explain to each applicant who feels he is going to degrade himself coming in for our service that it is not free; you are paying for it, even though you don't pay a penny tax directly. Every time you buy a loaf of bread or a suit of clothes you are paying the tax of the man who sold it or produced it, and you are a taxpayer; you are entitled to it and you don't need to feel you are lowering yourself by coming and taking it free.

We need more offices, better equipped, arranged for private interviews, segregation of applicants by type, not by race, color, or by religious or political faith, but segregating them by type; that is, the skilled mechanic over here, and they receive a common kind of treatment; the common laborers over here; the clerical and technical workers over here among his kind. We need that; we want that. I presume, Mr. Chairman, I would probably be ruled out of order if I didn't say we need funds. Every other speaker has said that, but it can't be helped. We must say it; we need funds. Every State having a public employment service fund needs them. I am coming to you this morning with a plea that you as governmental labor officials do all you can to benefit those who toil. You owe it to your employment service in your State to use your influence to help this department. This department doesn't place common laborers only. I know of one instance where an executive was placed in a position at \$5,000; I can mention a number of \$4,000 jobs. Within the last two or three weeks we have brought together a man who had a business in hock and a man who had a few thousand dollars he wanted to invest in some small business. These two men coming in at different times through the efforts of our office were gotten together and formed the R. W. Cornball Manufacturing Co., of Cleveland, and they are perfectly happy. So the limit of our service is not even in the minds of the folks. We can't imagine all the things the people can do. Each secretary is thoroughly posted upon the child-labor laws of Ohio; we know the exact requirements under the law. We are quite well posted on factory ventilation, heat, light, and protection of machinery and all that. We know that about your department; you ought to know something about our department. We are ready to pass that on to everybody who needs that information. If somebody calls up and says, "I am wondering if I can employ girls in a certain department," we are willing to send a girl out and talk it over. We believe in plant visitation. In the Cleveland offices alone our secretary made personal interviews into over 1,500 plants and offices alone, going through and seeing that the environment was all right, and seeing that conditions were all right, so that we might be honest with the applicant. A lot is said about being honest with the employer, but be honest with the applicant. He is entitled to know before he goes out; why waste his time and car fare, and how can we tell him if we don't know, and how can we know if we don't visit? Each person coming back into the office makes out a report of his visitation, which is filed in the office. You can go over any time and see any card and see our visitation plan. The employers are with us 100 per cent. They are recognizing that it is absolutely unjust to sit by quietly and allow their employment men to

call a private agency and expect a man to go out there and work, possibly, two weeks for nothing--50 per cent on the month's salary. No employer wants anyone to work for him for nothing. Sometimes when our representatives go in they will say "I don't have anything to do with employment agencies," but the minute they say there is no fee charged they will take advantage of it. We are recognized in all their conferences. I was permitted to remain in the national conference of manufacturers, which was exclusive to the extent that not even newspaper men could get in, and yet they allowed me to come in. That is true in all the other cities.

We are proud of our Ohio service, but we are not satisfied, and whatever you do in your respective States you will be helping us in ours. I hope the few remarks I have made have been of some service. I sincerely hope before your association adjourns that some resolution will be introduced and passed which will show to the public at large and to our officials who have the power to help us that this association is absolutely in accord and ready to sponsor and support to the limit the continuation of the service now in existence, and its expansion throughout the country.

[Meeting adjourned.]

THURSDAY, JUNE 10—MORNING SESSION

JOHN S. B. DAVIE, COMMISSIONER NEW HAMPSHIRE BUREAU OF LABOR, PRESIDING

The CHAIRMAN. The first order of business on this morning's program is the report of the resolutions committee.

[The following resolutions were read and adopted:]

REPORT OF COMMITTEE ON RESOLUTIONS

1. *Resolved*, That the association extend its appreciation and sincere thanks to the Department of Industrial Relations of Ohio, which, through its untiring efforts, has contributed to the pleasure and well-being of the delegates in convention at Columbus.

2. *Resolved*, That the appreciation of the convention be given to the press for the publicity given the proceedings of the association.

3. That Herman R. Witter, director of the Department of Industrial Relations of Ohio, be extended a special vote of thanks for his efficient administration of the office of president of this association, and that he be made an honorary member of the association.

4. As a substitute for the recommendations of the committee on migratory children, be it

*Resolved*, That this committee be continued, and that its study be extended to include nonmigratory children employed in industrial forms of agriculture.

5. As a substitute for the recommendation of the committee on industrial home work, be it

*Resolved*, That this committee be continued with the view of enlarging the scope of its investigation.

6. *Resolved*, That this association reaffirm its support of the child labor amendment to the Federal Constitution.

7. *Resolved*, That the Association of Governmental Labor Officials extend to Ethelbert Stewart, Commissioner of the Bureau of Labor Statistics, United States Department of Labor, its thanks for his courtesy in printing the twelfth annual report of the proceedings of the convention, held at Salt Lake City; be it further

*Resolved*, That he be requested to print the proceedings of the thirteenth annual convention, held at Columbus, Ohio.

The CHAIRMAN. I was very much interested to hear the questions asked Miss Van Kleeck after her speech yesterday and I know there are a number who didn't ask questions. If it is agreeable to the convention, would the delegates care to ask questions upon either one of the speeches given here yesterday? Any further remarks on Miss Van Kleeck's speech?

Doctor McBRIDE. I can't imagine that the organization is in the mood to discuss questions concerning the control of unemployment and irregular employment in industry, nor can I see where any great profit could come by asking questions at this time. There were many things said in the course of the discussion yesterday, the opinion strongly being expressed that it would be far better to consider the matter of appropriation for these various employment agencies to carry on their work and render a great service. It was said, among other things, that attention should be directed to that fact rather than to an elaborate system of statistics that would be helpful in directing attention to certain spots where unemployment strongly prevailed, at

the same time losing sight of the fact of greater service to the men out of a job. I can hardly think there is any need for asking questions. That is the theme that was talked about quite considerably that there was more need for intensive work in trying to bring the man to the job than there was for construction of an elaborate system of statistics that might determine established tendencies of employment in one section. For that reason I do not think it would be perfectly in order to continue the discussion unless some one feels something constructive can result.

The CHAIRMAN. I would like to see a little pep put in the convention. I thought this was a pretty good time to talk about what Miss Van Kleeck said. I like a chance to reply. If Miss Van Kleeck has anything further to say we would be very pleased to listen to her.

Miss VAN KLEECK. I would like to take up two points—in the first place the matter of expense. I don't believe there is a cheaper investigation any State can make, and Mr. Baldwin will bear me out on this, than this monthly collection of figures on employment. It takes no more than probably \$2,000 in the largest industrial State to make this in the course of a year; it takes less than the full time of a clerk to do this work when these returns come in and enables the State department to give currently to the public and to the business men and to labor the facts about changes in employment when they happen and also the fact about changes in wages when those changes are taking place, and all for a very small appropriation. Of course it is important to consider appropriation, but State departments will never get appropriations so long as they don't say, "We want it for such and such a specific service to the State." It is true that business men must be stimulated to want this, but the experiences in New York, Wisconsin, etc., indicate that when they have actually begun it the proper organization passes a resolution to extend and continue it; they want the information. That is a matter of practical experience; this isn't a theoretical matter. Of course statistics don't create work of themselves; that is perfectly evident, and yet we all know there are policies which are being put into effect which enable certain enterprises to maintain a steadier force than other businesses and some of the information needed to enable employers to continue regular employment is just this information on employment that we are talking about. Of course we want employment exchanges, but employment exchanges don't create jobs. If the industries of your community run on a seasonal basis, up and down, it enables the employers to control their production so that they can keep their employees employed. What can your employment service do about it? The only thing it can do is to fill a job when it is actually opened. This isn't an alternative. Employment service is very much needed, but part of the information needed by the employment service is about where employment exists. I don't think there is any real argument on the question of expense. There is no real argument against the statistics, because these are the most practical statistics and most inexpensive and can be recorded by the employer's clerk in any establishment in 10 or 15 minutes in a month and the argument that statistics don't create

employment is answered. You have got to have statistics if we are going to create regular employment.

The CHAIRMAN. I will call upon Brother John Meade, of Massachusetts, to preside over the rest of the meeting.

**JOHN P. MEADE, DIRECTOR INDUSTRIAL SAFETY, MASSACHUSETTS, PRESIDING**

The CHAIRMAN. This organization has many important problems for its attention. It is interested in the welfare of the child worker and also in the welfare of the women who toil for a living. It is also interested in the employee exposed to some of the dangerous work in the coal mines. The next item on the program is an address by W. W. Adams, statistician Bureau of Mines, Department of Commerce, Washington, D. C. His subject will be "Accidents and accident prevention in bituminous coal mines."

Mr. ADAMS. Before proceeding to read the paper I want to make this statement, that the coal mines of this country are responsible for about one-third of the accidents in coal mines of the world.

### **ACCIDENTS AND ACCIDENT PREVENTION IN BITUMINOUS COAL MINES**

**BY W. W. ADAMS, STATISTICIAN, UNITED STATES BUREAU OF MINES**

The United States has for many years led all other nations in the production of most of the essential minerals. We have, for example, established undisputed leadership in the production of coal, iron, oil, copper, lead, and zinc and we occupy either first or second place in the production of gold, silver, salt, phosphate rock, and various other minerals and metals. We have taken the lead, not alone in the total quantities of these minerals produced, but have also assumed an advanced position in what perhaps is equally significant, namely, adopting methods of operation that have resulted in a larger individual production per employee than in any other country. This fact is most strikingly illustrated in the case of coal mines. Statistics show that the United States usually enjoys a larger daily output of coal per man than any other important coal-producing nation.

It is fitting that these facts should be emphasized because they demonstrate what American ingenuity can accomplish under mining conditions that prevail in this country. At the same time they serve as a background that brings out in bold relief a much less envious phase of our record. We lead the world in total number of tons produced, and in the daily output per worker, but we are not as near the front of the procession as we should be in our efforts to reduce the death rate per thousand miners employed. For example, England, France, and Belgium have fatality rates about one-third as high as ours, and Germany's rate is only about two-thirds of that for the United States.

These facts are not new to those having occasion to keep in touch with coal-mining conditions, but the problem of how to reduce the fatality rate in this country is one of continual concern. Different types of mine accidents call for different remedies. No single corrective measure can be applied to the whole problem, except, of course, the universal caution as to greater care on the part of the employees.

Approximately 1,800 men are killed annually in the bituminous coal mines of the United States, an average of five for each of the 365 days of the year, or about eight fatalities on each day the mines are actually in operation. Nearly half of these deaths, or about 900 per year, are caused by falls of roof or coal. Eighteen per cent are due to haulage accidents underground. About 13 per cent are due to explosions of gas or coal dust. Electricity claims 4 per cent and explosives about 4 per cent. Shaft accidents average about 2 per cent of the total; miscellaneous causes underground, about 4 per cent; and all causes above ground, about 6 per cent. It will thus be seen that all but 12 per cent of coal mine fatalities are caused by falls of roof and coal, haulage, gas and dust explosions, electricity, and explosives. Any material reduction in the American death rate must therefore be realized by concentrated effort toward the prevention of accidents among the five classes named. It may therefore be appropriate to consider specific measures advocated by the Bureau of Mines looking toward the elimination of accidents of these types.

Explosions of gas and coal dust are the most spectacular class of accidents that occur in coal mines. The public is more familiar with explosions than with other kinds of accidents because of the larger loss of life which they cause in a short space of time. Newspapers carry glaring headlines and sensational articles to all parts of the country whenever a large explosion occurs. The facts relating to the explosion constitute "news" of widespread interest and the stories are therefore given large amounts of prominent space in the daily press. The fact that only about 13 per cent of all fatalities are caused by explosions is sometimes lost sight of. Nevertheless explosions are one of the important classes of mine accidents that must be dealt with. It was, indeed, the occurrence of many explosions from 1907 to 1909 that lead Congress to create the Bureau of Mines. It was therefore natural that explosions should receive the early attention of the newly created bureau. It is obvious that explosions of gas or dust can not occur unless some source of ignition is present in the mine. Several sources of ignition may be present. Matches, blasting, sparks from trolley wires, electric machines, or miners' lamps have at times caused serious explosions. The most fruitful source of explosions has been open lights carried by miners. Next in order is blasting. Several explosions in recent years have been attributed to electric arc either from a cutting machine or trolley wire. As more than 80 per cent of explosions have been caused either by open lights or blasting, it will suffice to call attention merely to these two sources of ignition. A tabulation covering more than 10 years showed that 46 per cent of explosions were caused by open lights and 37 per cent by blasting, usually blown-out shots. It is the belief of engineers of the Bureau of Mines that the elimination of open lamps and of all types of nonpermissible explosives would prevent nearly all major explosions, and that if a body of gas were ignited its spread through the mine through the agency of coal dust could be prevented by the use of rock dust to dilute the coal dust. It is difficult sometimes for the industry, meaning the miners as well as the operating companies, to see the necessity or advisability of adopting such radical measures, particularly if in a given mine

or mining field no serious disaster has been experienced. Departures from long-continued practice are not always welcomed by the employees. Moreover, increased production costs occasioned by safeguards against potential hazards that have to date never resulted in actual loss of life are not always welcomed by operating companies. This attitude of some operators is not necessarily without reason and apparent justification, because many companies operating on a narrow margin of profit and sometimes on no margin at all, would be at serious and sometimes fatal disadvantage as compared with companies with lower production costs or with companies operating in neighboring States where safety in mining received less consideration under State laws. Standardization of safety measures applicable to similar hazards regardless of location of mines would remove any disadvantage as to production costs to progressive operators who are anxious to adopt all reasonable safeguards for their employees. Such standardization can be realized only by the adoption of minimum requirements which shall become effective in all States simultaneously. These minimum requirements should not be forced upon the industry, but should be the result of concerted action by all operating companies. Since major dust explosions cause 8 per cent of all deaths in coal mines, and since such explosions are believed to be entirely preventable through the use of rock dust, it is probable that standardization as to the explosion hazard alone would reduce the annual death toll to that extent. About 4 per cent of all deaths are due to minor or local explosions of gas, and to these other corrective measures must be applied.

Falls of roof and coal comprise the chief cause of fatal accidents in coal mines. As previously stated, nearly 50 per cent of all fatalities are due to this cause. Accidents of this type are more difficult to prevent because of the large variability in their causes and because the human factor plays so large a part in their occurrence. Many deaths from this cause must be classed as unavoidable, and therefore properly chargeable, at least in the present state of our knowledge, to hazards that are inherent to coal mining. However, a much larger number can doubtless be prevented. It is extremely likely that many deaths are due to insufficient timbering at the working face and to the prevailing practice of setting up props to support loose rock or roof only when it is believed that the roof is likely to fall. Systematic timbering without waiting for the discovery of dangerous conditions would doubtless prevent much of the loss of life now attributed to falls of rock. Such timbering would consume time which miners might otherwise use in actual tonnage work and would also, if largely increased quantities of timber were used, be an added cost to the production of coal, which must be reflected in the price of coal to the consumer. Deaths in coal mines are now costing the industry, and indirectly the consumer, at least \$3,000 each. The 900 deaths annually from falls of roof and coal represent an actual cash expenditure of \$2,700,000 a year in the form of compensation paid by State compensation commissions and insurance companies to dependents of deceased miners. Lives might be saved through the more generous use of props for the roof and through the expenditure of additional funds for the employment of more supervisory employees to insure the placing of timber

by the miners. Miners paid by the ton are sometimes prone to continue loading coal when they have reason to believe that props should be set; it is perhaps a natural tendency; but some solution or at least partial solution, satisfactory to miner and operator, could be found through the joint council of all interested parties in conference where safety was the prime objective. Here again is illustrated the necessity for the adoption of minimum safety requirements in all districts where similar hazards exist, and here also is emphasized the need for simultaneous application of such requirements so that no single mine may be operated at the expense of safety to its employees and enjoy price or market advantages over a neighboring mine operated by a company that is anxious to safeguard the lives of its men. Nor should mines within any State enjoy such unfair advantages over mines in adjoining States having higher safety standards. It is doubtless true that safety pays for itself ultimately in dollars and cents. It is equally true that the benefits may not be immediately apparent and that the backward company or State may acquire markets temporarily at least that should not for a moment be lost by the more advanced companies.

Accidents in connection with haulage operations underground are usually second in number to those due to falls of roof and coal. Nearly 20 per cent of all deaths and about 30 per cent of all injuries are caused by mine cars and mine motors. Most of the victims are men whose work requires them to be on the haulage ways, but a very large number, perhaps a third, of all accidents result in death or injury to men who are not haulage workers. These men sometimes become victims of their own carelessness because they walk along the tracks in violation of safety rules. Many of the larger companies have provided traveling ways for the men, so that it is unnecessary for the miners and other nonhaulage workers to use the trackways to get to and from their working places. Where such traveling ways have been provided it is the employee's duty to use them. There are many mines, however, where traveling ways for the men have not been provided, the failure being due to one of three things: First, the operator's violation of State law; second, the inadequacy of the State's inspection law; or third, the insufficiency of the usual haulage ways for both haulage operations and man-traveling purposes. Many mines have haulage ways that are wide enough to afford ample space between the tracks and rib for the employees to walk in safety. Moreover, the companies provide refuge places at frequent intervals along the side thus affording additional opportunities for the men to protect themselves upon the approach of a motor or trip of cars. Where such refuge holes are needed and have not been provided and where ample width between the tracks and side of haulage way is needed and not maintained, either the company is operating in violation of the safety laws of the State or the State's safety laws are grossly inadequate. In the former case the remedy is obvious; in the latter case it would be a service to the industry in particular and to safety in general if those operators whose safety standards and practices are far in excess of the minimum requirements of State laws would lend their influence toward the raising of the minimum requirements and toward the strict observance of those requirements by all operating companies within the State.

Proper provision for refuge holes and adequate width between the tracks and side also would eliminate many accidents to employees whose duties are directly connected with haulage operations. Still other accidents might be prevented by the use of properly designed cars and the maintenance of track and roadbed in good condition, as many accidents have been caused by men stumbling and being run over by coming in contact with overhead obstructions under which the trip is moving, and by derailments. However, when all safeguards have been provided by the company there will still be accidents due to the carelessness or forgetfulness of men in jumping on or off cars while in motion, in coupling moving cars, and in other ways. Accidents of this kind are preventable in exactly the same way that traffic accidents on city streets are preventable—namely, by constant education of persons handling moving vehicles and by the discipline of the small minority who can not or will not adopt safe practices, either for the protection of themselves or others.

The three classes of accidents thus far referred to—explosions, falls of roof and coal, and haulage—cover the larger part of all accidents that occur in coal mines. Two causes remain to be considered, electricity and explosives. Electricity is responsible directly for only a comparatively small number of fatalities, ranging from 75 to 100 a year, about 4 per cent of the total number from all causes. It should be stated, however, that electricity must be credited in large part with the high productivity per man in American mines through the operation of electric coal-cutting machines, electric haulage motors, and electric loading machines. In connection with cutting machines and haulage operations, electricity is directly responsible for the speeding up of mining and haulage operations and indirectly responsible for some of the accidents charged directly to mine cars and to other causes. For example, several major explosions of gas or dust are believed to have originated in the ignition of the gas or dust by an electric arc from the trolley wire or electric coal-cutting machine. For the small number of accidents that are directly charged to electricity each year, however, it is usually the forgetfulness or carelessness of the injured man that is responsible, since most of the accidents are caused by men coming in contact with the trolley wire. Constant care is the chief remedy if not the only remedy for accidents of this kind.

Explosives are the last of the five main causes of accidents enumerated at the beginning of this paper. As stated before, about 4 per cent of coal-mine fatalities are due to this cause. This is the proportion for which they are directly responsible. As a matter of fact they have also been the initial cause of some of the worst gas and dust explosions that have occurred in the United States. While open lights have been the principal source of ignition of major explosions, yet 30 to 40 per cent of them have been traceable to explosives, usually black powder, sometimes dynamite. It is for this reason that the Bureau of Mines recommends that nothing but permissible explosives should be used in coal mines. Aside from the fact that many disastrous explosions of gas or coal dust have been caused by explosives, it is important to guard against the explosives hazard where dust or

gas is in no way involved. Of the 50 or 85 deaths annually from explosives accidents, the large majority are due to premature shots. Premature shots are usually due to short fuses; that is, to fuses which the miner cuts too short to allow himself time enough to reach a safe place before the blast. Since the shortening of fuses is an old practice that is most difficult to combat, the elimination of all fuses and the adoption of other methods of blasting would be promotive of safety. It is for this reason that the Bureau of Mines has recently recommended that all blasting in coal mines be done with permissible explosives and that the explosives be fired by electric detonators.

Perhaps the measures most needed to reduce the American death rate may be summarized as follows:

1. Adequate supervision of all working places.
2. Adequate timbering, with a minimum of exposed roof, without waiting for danger to become obvious.
3. Well planned and well maintained rolling stock, roadways, and haulage ways.
4. Adequate ventilation to carry away inflammable gas.
5. The use of water on cutter bars of mining machines to allay coal dust, and the use of rock dust to prevent the explosion of coal dust in bituminous mines.
6. Elimination of all open lights in coal mines to prevent explosions and fires.
7. The exclusive use of permissible explosives for blasting in coal mines, the explosives to be fired with electric detonators and used in a permissible manner.
8. The use of "permissible" machinery in coal-mining operations.
9. The training of all employees to think safety and practice safety and the discharge of those who are incapable or unwilling to do so.
10. The convincing of all employees that the company requires production with safety and that it will not countenance production without safety.

The collection of fundamental facts relating to accidents in the mining industry should be made the duty of some impartial agency in whom the industry has complete confidence. Mutual suspicion resulting in a lack of full knowledge of conditions has doubtless been a contributing although indirect cause of many accidents. When once the basic facts are thoroughly understood, the mining industry may be relied on to produce the Nation's minerals at a minimum cost in human life.

[At this time Mr. R. H. Lansburgh read the following paper on "Mine Accidents," prepared by Joseph J. Walsh, secretary of mines, Pennsylvania, who was unable to be present.]

### ACCIDENTS

BY JOSEPH J. WALSH, SUPERINTENDENT DEPARTMENT OF MINES, PENNSYLVANIA

[Read by R. H. Lansburgh]

Wherever there is human activity, there is liability to accident. In all occupations there is an element of danger. In some there are exceptional hazards. This is true particularly of the mining occupation. The nature of the work, the surroundings, the implements,

and machines that are used to accomplish the work all add to the dangers and the dangers increase in direct ratio with the difficulty of the work. The work in a coal mine is continual building up and tearing down. To meet the conditions that confront the coal miner precautions are necessary at every stage of the operation; hence, as the industry has developed and grown to greater proportions, the laws and rules governing mining operations have from time to time been amended and strengthened until to-day they would seem to meet almost every possible requirement.

But regardless of the laws and rules accidents occur at an appalling rate. The important and necessary thing to do, therefore, is to work upon the personal element. Men must give more attention to their work and the industry must afford more constant and effective supervision if we are to hope for a lessening in the number of casualties.

Facing danger every day practically under the same conditions makes men and officials less careful; constantly doing the same thing engenders a habit of indifference and the result is a deplorable number of accidents that could have been averted. Perhaps 50 per cent of the accidents that occur in the mines could be prevented by keeping constantly in mind the observance of the rules of safety and the enforcement of more rigid supervision and direction.

Injuries to workmen in the mines of Pennsylvania occur at the rate of one every four working minutes.

The excavations made in the coal mines of Pennsylvania each year would form a subway 8 feet by 10 feet and 13,000 miles in length, driven at the rate of 3.4 miles per hour. The work is accomplished in about 240 days by 338,000 workmen, and a fatality takes place at the rate of 1 for every 14 miles and a nonfatal accident occurs at the rate of one for every one-fourth mile.

Qualified foreman are in charge of the workmen and they are supposed to watch over their safety, but when these officials are called upon to supervise a large number of workers in different parts of a mine it is impossible for them to give the men individual attention. It must not be supposed, however, that all workmen are careless; on the contrary, the vast majority of them are alert and watchful not only for their own safety but for that of their fellow workmen. Were this not the case the casualties would be multiplied in number and the property of the operators would be in constant danger.

The number of accidents due to the human element may be reduced by the intelligent supervision and direction of the work by the mine officials.

No class of workmen in any other industry receive less supervision than the men engaged in the mines. An examination of hundreds of accident reports by the department of mines reveals the fact that less than five minutes a day are spent by an official in supervising and directing the work of the individual miner. And unless supervision is increased no material lessening of the casualties can be expected.

We know when and how accidents occur and the remedy is clear—supervision and direction. Remarkable results have always followed intelligent and properly directed supervision. No other plan that we know of has proved effective.

When a workman enters a mine it is for the purpose of digging out the dollar that hangs in front of him. That is his first consideration. And he digs to get it in the easiest and most convenient way.

It is believed by some persons that the miner would be more careful if he was more highly educated in matters of safety. This we think is a wrong assumption; at least the records so indicate. What would be the accident frequency rate among two groups of workmen in the same mine, one group composed of experienced miners and the other composed of experienced miners also well trained in safety engineering work? There would be no appreciable difference, as human nature is the same in both cases.

No man works under a piece of roof that he thinks is going to fall upon him. He knows the roof is not in the best of condition but at the same time remembers that he worked under such roof possibly hundreds of times before. His best judgment is that he is safe. He arrives at the conclusion from past performance and will continue to do so in the future if permitted. The remedy is more constant supervision and direction.

## DISCUSSION

Mr. HALL. While perhaps it will be much more constructive to have this discussion led by a practical miner, yet there are many pertinent questions occurring to us all which might as well be brought out by those of us who have general supervision over mine departments and necessarily have made some study of the same. The most excellent paper just presented by Mr. Walsh should prove of great value, and its general deduction that "the remedy is more constant supervision and direction" can not be questioned. However, a few thoughts have occurred to me. He states "perhaps 50 per cent of the accidents that occur in the mines could be prevented by keeping constantly in mind the observance of the rules of safety and the enforcement of more rigid supervision and direction." Can you expect a man to perform his customary work and at the same time constantly keep in mind rules of safety? Is it not rather the duty of some other individual as a safety man to do that?

The illustration of the amount of excavation and consequent fatality rate while an excellent way to focus the attention of the layman yet for the purpose of a proper fatality analysis is it not better to have the time exposure fatality rate? While tonnage fatality may prove of interest to the operators, yet exposure fatality is of far more importance in safety work.

Again he states when referring to the miners "the vast majority of them are alert and watchful not only for their own safety but for that of their fellow workman." Is not the duty imposed on the operators to safeguard the miners, thereby not only protecting his trained personnel but conserving his property also?

It is indeed illuminating and pertinently answers the whole question in mine accidents when Mr. Walsh states that less than five minutes a day are spent by an official in supervising and directing the work of individual miners. From our own experience I am satisfied that too often the general manager of the company has no knowledge of the true conditions, as the superintendent or mine foreman is fighting to keep down cost and will assume risks that higher officials would not approve.

The only thought in the paper with which I can not fully agree is the one that experienced miners well trained to safety engineering work would not be more careful than experienced miners not so trained. I do not know that any comparative statistics exist on this question, but can not believe that one trained in safety engineering would not instinctively take more precautions than one not so trained, regardless of human nature. If this is not so then our whole system of education is wrong. While it is true that "no man works under a piece of roof that he thinks is going to fall upon him," yet his safety training would or should make him take proper precautions to be a little more careful than one who has not had such training.

I agree that the remedy is more constant supervision and I believe another large factor in reducing mine accidents would be the elimination of the contract system or piecework.

[At this time "The Fall of Man," a moving picture under the direction of H. W. Mowery, was screened. Following this was a demonstration of first aid work in mines under the direction of H. R. Witter, director department of industrial relations, Ohio, an explanation being given by Jerome Watson, chief of the division of mines, Ohio, after which the meeting adjourned.]

**THURSDAY, JUNE 10—AFTERNOON SESSION**

**R. H. LANSBURGH, SECRETARY OF LABOR AND INDUSTRY, PENNSYLVANIA,  
PRESIDING**

**INSPECTION AND SAFETY**

The CHAIRMAN. The general subject of the afternoon's program is "Inspection and safety," following the specific problems in mines that were discussed this morning. However, the first contribution to the afternoon's program is on a subject which we heard something about yesterday from Doctor Hayhurst, and that is "Industrial fatigue." The speaker, whom I feel more than glad to present, is a national figure, and has been for some years the leading figure in the United States on the subject at hand. Her experience covers not one State or several States but practically all the industrial States in the Union, and her contributions have always been of the greatest interest because of their originality. It is therefore with the most extreme pleasure that I present to this group Mrs. Lillian M. Gilbreth, of New Jersey.

**INDUSTRIAL FATIGUE**

**BY MRS. LILLIAN M. GILBRETH, MONTCLAIR, N. J.**

Edison was asked one time "What is electricity?" The answer was "Electricity is, use it." Now if we were asked "What is fatigue?" I am afraid our only answer would be "Fatigue is, eliminate it." I am not going to waste any time in preliminaries; you can't define fatigue; we can only lay down exact measurements and exact rules for elimination. There is so much unnecessary fatigue existing in the industries, in the institutions, and in the homes that if we will simply take the problem of elimination of the unnecessary and the pursuance of the simplest sort of device for recovery of what is necessary we probably will be doing all we can be expected to do for some time to come, leaving it to the laboring people to begin that accurate measurement and fact finding which of course we have to have before we can be absolutely sure of what is going on.

Doctor Hayhurst I know talked to you somewhat on the physical side of fatigue; personally I don't feel that this side of it is going to be increasingly difficult to handle; on the other hand, with the coming in of power and machinery, and especially during the last year, we see what this sort of fatigue does to output. This problem is going to be handled and handled successfully. You know, of course, of the work that has been done in the departments of your own State in the study of posture, and the study of seating, length of working hours, and rest periods, and work periods, and that sort of thing. This work is getting into shape more and more from a scientific standpoint, and we are more and more getting coordination and correlation of various activities, which means, I think, we are going to have a

body not only of theories but of fine working practice in all of these various fields. I don't need to tell you because everyone of you is in contact with industry. We no longer have to go out and sell the subject of fatigue elimination to the manager of the other men. There are two or three points we who have been in it such a long time consider and always feel we must stress—one is the necessity of putting the thing in slowly, in order to gain the cooperation of the people who are doing it, and make provision to maintain and hold it after you get it. It is discouraging to put in rest periods and then to have the organization try it out such a short time; they will fling it out again without having had a real trial. We know that makes it much harder to sell the job the second time. A certain group put in a rest period and before the workers had established their new habits and gotten down to a point where they became automatic they kept such close tab on the output sheets—you know, of course, output must go down during any adjustment period—that the rest period went out before they had a chance to demonstrate their efficiency.

We are acquainted with the learning period and habit forming period, and know how long it takes before a habit is thoroughly established. How careful we have to be. Unless there is a lapse of time there is no fair test of this rest period, and it is put out without any great amount of trial. We sympathize with the people in that vicinity who are now trying again to sell this rest period to the people who never gave it a fair trial and only tried it out half way. The problems of chairs, posture, and all these things are spreading not only through this country but abroad, not only in industry alone but in the various institutions and in the home.

I hope to speak a little later about this tie between the industry and home. I do feel if anything has happened in this year over the fatigue work it is the realization of this tie, the part of the industry and the home, that each depends on the other for cooperation, if we are really going to do any significant thing in the fatigue field.

I said I thought the physical side of fatigue was going to be handled with increasing ease. Let me give you one more point. Our work is in the field of motion, study of simple methods, and standardizing the simplest and easiest way to work. We found increasingly in industries that the engineering work is having such a marvelous effect on the fatigue of the Nation. It is customary to go and study the man doing hand work and try to find out how we can simplify his motion by putting his equipment nearer, having a steady flow of the proper material, and functionalizing the work. Then with the realization of the tie between fatigue elimination and motion, or what you please, there is coming a very careful study of each process in hand work and other work, to see how machinery, machine designs, and tools can be adapted, invented, or supplied to cut out fatigue. If there should happen to be any new machine designed, and undoubtedly you have come up against those problems, you have probably seen the tendency in the engineering field to try to put in the equipment which will eliminate motion and fatigue. The old-fashioned engineer, clever as he was, invented a machine to increase output and to be easy of operation, according to the usual way of operating machinery. The newer type of man designs the machine with the least possible loss of motion and use and eliminates

fatigue in the first step—in machine designing. You have only to drive or to look over carefully the running equipment of the newest models of automobiles to find this absolutely true. While there are yet many machines, old and new, in our plants that do not conform to the fatigue elimination standards, the newer ones undoubtedly are working toward that end.

Now, the really important things in fatigue elimination to-day, to my mind, are the psychological factors, and they are factors which reach out into every field. We found it in production work, in the office work; we find it in the selling work and in the operation that parallels these—in the home field. It is no longer a matter of theory but a fact that worry of any kind cuts down output and increases fatigue. Undoubtedly those who are going to speak on safety this afternoon will bring that out, because of course we have found that worry of any sort, worry because you are going to lose your job, worry because the various types of equipment are not safe, worry from any industrial anxiety cuts down output.

The next thing I want to mention has much the same result; that is pressure. Pressure means there is plenty of work ahead. It may be a fatigue-causing factor. It may be a fatigue-eliminating factor, but as pressure to some means speeding up, pushing through all the time, then that pressure may be a great factor in fatigue. The speeding up that is done in bringing machinery to its best speed, and bringing work to that speed, makes it less tiring in the long run. This pressure runs through into the home. We have to tie up the two very closely, because we find in making a fatigue survey we have to consider a 24-hour day—work, rest, play, and otherwise—if we are to get any true perspective.

The next factor very much akin is friction. Friction is more or less variable. That has to do with an individual's likes and dislikes. Certain people, and there are always some in each group, simply thrive on friction. Unless there is something happening, some kind of a row, they are not absolutely happy. They will go home at night and tell their families it has been a very glorious day, a fight from the time they went in the morning until they went out. You nearly always can find plenty of fights. The answer to that of course is a little job analysis to find whether there is a job where fights are common, and a personal analysis to find out who likes these fights. Then there is the other type who simply can not stand friction at all, and it isn't confined to men and it isn't confined to women. It is a type that runs through every group in life anywhere. Some places you can sense it in the atmosphere before it has precipitated itself, and immediately they begin to resent it.

The last factor belongs to quite a different group, and that is the question of monotony; this is the most fatiguing thing in the world. I stand here to testify that after 20 years of careful looking we haven't been able to find one single job that is monotonous to everybody. There is scarcely a job you can think of that isn't fearfully monotonous to somebody. The answer to that again is the study of a job to find out how it has to be done, and a careful study to make it interesting from the standpoint at least of fatigue, and finally that personal analysis that means you get a person into that job who likes to do it. Most of the people who claim that work is fearfully

monotonous are usually people who have not at that time had first-hand acquaintance with the industry. I feel very sure all of the members of this group have had considerable difficulty trying to promote people, trying to get them out of jobs which they have found to be monotonous to them, and into jobs which are more interesting and more to their liking. If a person has the initiative to come to you and say: "My job is monotonous," you think, "Here is somebody who has every capability of promotion." It is our job in fatigue elimination to study the work, to estimate its fatigue factors, and try to find out what sort of people can find it profitable and what sort of people would find it harmful, and to shift them around.

Another factor is lack of appreciation. That so easily lets itself develop into an "I don't know" case of uplift. There is a great temptation to go into that factor. Certain people are far more fatigued by any type of activity that doesn't give them any opportunity of appreciation of any sort than other people are. Fatigue begins in production work and spreads into office work. I have had a rather strenuous time with office jobs. Two gentlemen whom I went to see about a rest period said they found no office where there was enough going on to warrant any kind of a rest period. I think with newer kind of work coming on, that it is not so true; I think the answer to that is simply the fact that we have never put the office man where he should be placed, along with the production man, where he is able to say what he thinks should be done, and is able to go ahead and standardize the work of his department. When that is done I believe the office is going to show as fine results as it shows opportunities.

Another fatigue work which is going on is in the field of prison activity. I don't know whether anybody in this group knows anything about the work being done in prisons and in the reformatories. The men and woman who are there are largely there because they have never learned the habit of industry and have never learned of fatigue. They are now being given an opportunity to learn industries, and trained so that when they get back into life they will fit into the industry to-day with all its situations. Now you can see what an ideal field we are going to have for fatigue investigation, because we have a group which with all its handicaps can be studied very carefully under a 24-hour day observation.

The last field into which it is spreading, and where it is needed most, is the field which must interest you, and that is the home. It interests you first of all because you are yourselves members of the home; and secondly, in its industrial aspect, each industrial worker with whom you come in contact comes from a home with a certain amount of fatigue, to begin with and he goes back into the home with the fatigue that has been acquired in daylight. It is not theories I am giving you, it is actual practice, and if you start to make a fatigue survey and try to get any actual figures as to what is happening, you have to tie up the industry with the home. You have to know what you are going to work with and what happens to the product after it goes back. This psychology of fatigue is really the most interesting thing in the world, because it is so fresh and new every time you see it. If you think that it is more or less a fairy tale, and the only kind of fatigue that counts is physical fatigue, and that you know

absolutely how much physical fatigue you have, just look what happens to you when you go back home from this convention. Suppose you had a most thrilling time, and every thing you could want in the way of stimulating interest and friendly contact, and when you get back you find your office in complete confusion, and all this buoyancy, satisfaction, and elation, and the feeling that you have thrown off fatigue all leave you, and that burden will come down upon you. And this fatigue which is apparently in the air will accumulate almost instantly and come back. Suppose, on the other hand, that at some sort of meeting during the day you have accumulated a great deal of fatigue, not only fatigue that is physical, not only from physical activities, I don't think that any of us are in danger of that, but psychological fatigue that comes from likes and dislikes, suppose when you get back to your office you find just that appreciation and welcome, what is going to happen to that fatigue which has been so pressing? It is just going to vanish. I felt quite concerned about this a few days ago and asked Doctor Hayhurst "What happens to all that; isn't it really driven into the background, and won't it come back?" And he said he didn't know. "You know the new gland theory; we explain everything by that; that given a certain amount of emotional excitation fatigue is burned up and we start anew." I don't know that the gland theory is any more explainable than the fatigue theory. I don't know that we are pushing the thing one step. One thing we do know from actual experience is that the psychological factors are really the most vital and the most important. That would be the message that I would bring you in industrial fatigue. We are lining up with many groups of many kinds in many countries and getting in many new slants. We have a feeling that the engineers will take up their burden and that absolutely we can depend on them to design and devise the new machinery we are going to need to cut out fatigue. A feeling of hope is in this field, which is to sell to people a willingness to try new things and keep trying them, through that habit-forming period, and a feeling that psychologists are taking up their end of the burden. Increasingly we are going to have the key to the problem in our hands.

The CHAIRMAN. Inasmuch as the program as outlined is rather long, I think we should follow the program as printed and take up the next item on the program at this time. This takes us directly into safety work, and as you well know, we will take up the educational phases of safety work. I know all of us from other States are very appreciative of what Ohio has already done for us, and I know Ohio is going to give us one more thing to take back with us. There are many of us in other States who are watching the work being done in Ohio with a great deal of interest, and we will be very glad to hear what Mr. Kearns has to say.

Mr. KEARNS. I assure you it is a pleasure to be with you this afternoon, to have this opportunity of presenting to you a few words on this very important phase of accident prevention work, the educational features of it. I know you are busy and you have a lot of work to do; you have a full program and I am not going to take any of your time with any preliminary remarks. I have prepared what I have to say on this subject and with your kind indulgence shall proceed to present my thoughts.

## EDUCATIONAL PHASES OF SAFETY WORK

BY T. P. KEARNS, SUPERINTENDENT DIVISION OF SAFETY AND HYGIENE, INDUSTRIAL COMMISSION OF OHIO

Inasmuch as this is a gathering of State officials whose function is to prevent industrial casualties, I shall deal with the subject assigned me, "Educational phases of safety work," from the standpoint of the State's activities in this direction.

There was a time not long ago when the entire activities of States in accident prevention work could be summed up in two phrases, factory inspection and orders to comply, or, in other words, the arbitrary enforcement of statutory laws and other mandatory regulations governing industrial conditions by inspectors clothed with police powers of the State. As a matter of fact this is the principal method in most States to-day and in some the only method, although a few States are doing a fairly large amount of what can properly be termed educational safety work.

Without a doubt what is commonly termed straight factory inspection work has been the means of eliminating innumerable hazards from industry, thereby preventing many accidents and injuries; and I wish to take this opportunity, even at the risk of appearing self congratulatory, to compliment the factory inspection departments on the splendid results already accomplished in this direction. However, in spite of the progress that has been made along this line, a tremendous number of preventable accidents are still occurring in industrial establishments, as shown by the accident records of the various States, including those in which the most effective factory inspection work is being carried on, and these accidents are not confined to those which are usually attributed to the human element, but on the contrary many of them are due to unguarded machinery and various other mechanical defects which factory inspection departments have been endeavoring for years to eliminate.

This being true the question naturally arises what is the reason for the continuance of these physical hazards after all these years of law enforcing activities. As one who has been a chief enforcing official for a number of years, it is my opinion that it is due in a measure to certain limitations which prevail in factory inspection work and which necessarily handicap these departments in their activities.

Among these limitations I might mention the following: First, no inspector, regardless of how competent he may be, can possibly see all physical hazards in a plant, especially if he is not thoroughly familiar with the industry, and to expect him to do so would be expecting the impossible. Visits of the inspector are of necessity more or less infrequent, and during intervening periods new hazards are bound to arise which remain unguarded until he returns, and even if all hazards were located and orders issued for their removal there is all too frequently an effort on the part of the employer to delay or evade compliance with such orders. Then, too, some employers more or less resent being ordered or compelled to do anything, and as a result such guarding as is done by such employers is intended to meet the letter rather than the spirit and intent of the law. In other words, the work is done in a careless slipshod manner, thus defeating to a large extent the purpose of the law and the order.

The primary object of factory inspection is intended to see that machines are guarded and protective devices furnished, regardless of whether employer or employee desires them or, as is often the case, in spite of the employer's or employee's protestation that they are unnecessary and useless. This of course raises the question as to whether or not it is essential to have the interest and cooperation of employers and employees. An assumption underlying factory inspection is that the removal of physical hazards will make industry as safe as is practicable, an assumption which meets with a certain amount of approval from one quarter, yet from another is by inference at least denied or disputed.

We have here to deal with a question which is almost as old as the American safety movement, a question of whether mechanical safeguarding, using that term in a very broad sense, or human engineering, using that term to denote the handling of the working force, is the more effective in the prevention of accidents. My own view is that both are essential; while industry as a whole is to-day much better protected mechanically than it was a few years ago, a great amount of guarding is still imperative, the amount of which varies with each industry but which is still of great importance in all. Because I believe this to be true, I do not share the view of those who hold that the prime essential at present is to insist that workers shall be careful. While I agree that workers should be taught safety and taught to exercise care in their work, as I see it the prime essential is that employers be induced to take a whole-hearted interest in accident prevention, for then and only then will the necessary and proper safeguards be provided and safe conditions obtained, all of which are necessary in order to appeal to and insist on the workers cooperation. Only when a real safety spirit is created in each establishment, which begins with the president and continues to the newest employee, which provides guards not only in accordance with the codes but far in excess thereof, which functions day in and day out through an organization developed to serve that important purpose, only then will accidents be reduced to the lowest possible minimum.

When we think of the innumerable causes of accidents which it would be impractical if not impossible to cover or control by statutory enactments or codes, and even though included would be beyond the ability of any inspector to note, when we realize that cooperation on the part of the management and men can not be secured through legislation or orders, the necessity of supplementing purely coercive methods with educational methods becomes fully apparent.

I trust that I have made myself sufficiently clear on this phase of my subject so that there will be no misunderstanding of my position regarding factory inspection or arbitrary enforcement of laws relating to the safeguarding of dangerous conditions in industry. I believe that regardless of the educational safety work carried on, so-called straight factory inspection work must continue simply because there are some employers who must be compelled to provide safe working conditions in their plant through force or exercise of the police powers of the State.

Whether educational or persuasive methods and the factory inspection or coercive methods can be successfully combined or whether it would be best to have them under separate leadership is a question no one can authoritatively answer to-day simply because there is not

as yet sufficient experience on which to base a definite and final conclusion. In some States, as has already been pointed out, both methods are being used by one single department. Here in Ohio an experiment is being tried of having educational safety work carried on by a separate department, known as the division of safety and hygiene. But whether carried on by one or two departments the point I wish to make clear is that State educational safety work must be intensified and extended before we can hope to reach the desired end in accident prevention work.

Ordinarily when we think of educational safety work we have in mind the education of employees. From my point of view the education of the employer is all essential to any results that we can hope to achieve in the education of employees; otherwise we have the cart before the horse. In order to direct our educational efforts intelligently we must clearly visualize what we wish to accomplish through education. In the case of the employer, I believe our efforts should be directed to secure his genuine, whole-hearted interest in "safety first," an interest which is based not only on a realization that safety is a money-saving proposition but that it is a moral and social obligation as well, and when we succeed in reaching the heart as well as the mind of the employer we will get 100 per cent cooperation. Sometimes we succeed in interesting the employer but fail to educate him to a knowledge of how to carry on safety work effectively. As a result the employer gets the wrong sort of a start, fails to secure the results he expected, becomes discouraged or disgusted and once again accidents in his establishment are permitted to occur with little or no effort being made to prevent them; but when the employer is really and whole-heartedly interested in preventing accidents to his employees, he will place some one definitely in charge of safety work; he will provide the guards and protective devices required and he will take the necessary measures to interest and educate his foremen and workmen in safety. This analysis shows us not only what we wish to achieve through education of the employer but furnishes a yardstick for measuring the effectiveness of our efforts.

Having determined what we wish to accomplish through the education of the employer and having included therein the education of the employees, let us inquire what results we wish to achieve through employees' education. First of all we wish to see them educated to an appreciation of the fact that many accidents can be prevented only through efforts of the worker, and that these efforts are advantageous to them personally. In other words, workers generally must be convinced that the safety-first spirit pays. I have used the term "safety-first spirit" because no single word fully conveys the workers' responsibility. If he has the safety-first spirit he will know the dangers of his work and will take no unnecessary chances on his own life or limb or on that of his fellow worker. He will not indulge in horseplay, and will faithfully use the safeguards provided. He will endeavor to work safely and will implicitly obey and follow the safety rules and regulations laid down by his employer.

The foreman or superintendent imbued with a real safety-first spirit will take the proper interest in the welfare of his men, will see that proper guards and protective devices are provided, that they are conscientiously used, that the right workman is placed on each

job and thoroughly instructed as to the dangers or hazards of his work, and that safety rules are strictly observed.

While the primary responsibility for creating and inculcating the safety-first spirit in each organization rests with the management, the State also has a responsibility in this direction and a splendid opportunity to render assistance to the employer, because where workers are properly educated accidents invariably are reduced. While it is not possible to secure genuine cooperation of the workers until the management has given tangible evidence of its interest in accident prevention by providing at least a reasonable measure of mechanical safeguarding, even where the mechanical safeguarding is only fair the education of the worker will effect a marked reduction of accidents. In evaluating the relative importance of the various factors entering into accident prevention, it is a generally accepted conclusion that safety education is capable of reducing the number of accidents at least 50 per cent. This of course will vary in different establishments, depending on the degree of perfection achieved in mechanical safeguarding.

Granting that safety education is desirable, the next question is how educational safety work is to be conducted. Educating, persuading, interesting, or selling the employer, whichever term you prefer in safety, is much the same as selling him a new machine or anything else that he doesn't have but should have, whether it is a commodity or a service. When a company starts out to market its wares, it usually proceeds by general publicity in the magazines and newspapers, by sending descriptive material through the mails, and by personal visits of its salesmen. These three methods have been and are being used with considerable success by various States in selling safety service to employers, but in no State of which I know has a degree of efficiency and coordination been achieved comparable to that prevailing in industry.

Our code work, accident statistics, special studies of particular industries, visits of our field men, all offer an excellent opportunity for securing news and trade-paper publicity. To do real effective safety work the subject of safety must be kept constantly before the public, and there is no better medium through which to accomplish this than the newspapers, which are always glad to have feature articles; and where could one find material more packed with human interest than accidents afford? Pick out some of your permanent total disability cases; show the home conditions before and after the accident; show the war that is being waged to make such cases impossible and to make industry safe from the demon accident and your newspapers will publish it and come back for more.

By the use of "boiler plate" a constant flow of publicity can be secured in the smaller towns, which in general stand in greater need of it than the larger towns, in many of which there are locals of the National Safety Council, large plants doing effective safety work, and other factors tending to awaken the people to an appreciation of the need for accident prevention.

Trade papers are always interested in news concerning their own industry. Surveys of special industries, statistical material, stories of companies doing effective safety work and the results secured, revision of insurance rates, unusual or interesting decisions of the compensation commission—all are excellent publicity material and

help to create an interest in the problem of protection to human life and limb.

These are just a few of the channels whereby publicity may be secured and employers and employees reached indirectly. Before passing on to direct educational methods, I wish to point out the necessity of carefully coordinating the various publicity efforts and the more or less obvious fact that the preparation of publicity material requires some one trained in this work in order to make it most effective and productive of the best results.

In considering the direct approach through the mails and in person I shall first deal with the approach through the mails, for it is the simplest way to reach the largest number in the shortest period of time.

At present quite a number of States send out bulletins, either monthly or occasional, most of which are very commendable. In the preparation of these there should, of course, be a clear perception of the purpose to be served, which is to interest the employer who has not yet become interested in safety as well as to educate the employer who is already "sold on safety." When we realize the large number of establishments whose interest in accident prevention is of the most casual kind, the importance of stressing the factors which tend to interest employers becomes apparent. These bulletins should escape from the dry conventional type sometimes used for such purposes.

In addition to the regular monthly bulletins special bulletins should be issued. One should cover the basic principles of accident-prevention work with definite instructions, well illustrated, showing how to properly build the ordinary type of guards. Others should deal with housekeeping, fire prevention, first aid; still others should be designed expressly for foremen, safety committeemen and workmen. A series of high-grade pictorial posters for posting in the shops should also be provided.

While statistics have been mentioned, they are of such basic importance that further reference must be made to them. It seems scarcely necessary to point out that intelligent direction of accident prevention demands a statistical analysis of all accidents occurring, which shall definitely determine what the most prolific accident causes are, in industry generally and in specific industries, thus enabling a concentration of effort to be made on these causes. In order that the statistics shall be truly indicative, they must be based on complete and accurate reports of all accidents and must be in such detail that specific causes are clearly brought out. That such statistics are of the greatest value not only in determining where efforts should be centered but are also of exceptional educational value can not be gainsaid. When you can place before an employer a thoroughly exhaustive table of the accident causes in his industry you are reasonably certain to interest him, and it is also likely that the knowledge gained will be put to use and the most prolific hazards eliminated or minimized. These statistics will also reveal the number of accidents due to the human element and which can be eliminated only by cooperation of the workers, and thus furnish material for the education of workers which will carry conviction. Newspapers, posters, and speeches can be used to carry this message to the workers.

A safety museum displaying models, photos, and blue prints of improved safety devices and appliances also has a decided educational value. To serve its purpose properly, however, such a museum must be reasonably complete and kept strictly up to date.

Another means for educating the employer is afforded by complete surveys of his plant by field men, who should, of course, be competent safety engineers. If these surveys are exhaustive, covering not only the physical hazards but the defects or points of weakness in their educational safety work, with precise recommendations as to the things that ought to be done to advance the cause of safety, the employer is very likely to be impressed sufficiently to carry out many, if not all, of the recommendations.

Supplementing this service, expert consultation should be made available to the employer, particularly the small employer who can not afford such service, to assist him in solving any difficult or technical problem connected with his accident prevention work, whether it relates to the best guard for a particular machine, or means for overcoming indifference and carelessness on the part of workers, or whatever the problem may be.

This service should be further supplemented by offering employers, either as individual or as a group, services of speakers to address meetings of workers and of foremen, thus assisting employers in the education of their workers. An effective approach to the employer is also afforded by State or regional safety conferences, State or local safety campaigns, and by having speakers address chambers of commerce and other civic and trade organizations on the subject of safety.

All the educational activities noted above have been used by various States at one time or another and I might add that they represent the activities of the newly created division of safety and hygiene of the industrial commission of Ohio which are already being carried out or are in the course of preparation.

While it is still too early for us to judge of the ultimate effectiveness of this method of educational appeal, results already attained are strikingly encouraging. Our field men report a decidedly favorable reaction of employers, and these reports are substantiated by numerous letters received from employers, pledging their cooperation not only in the matter of safeguarding but also in carrying out our recommendations pertaining to organized safety work in their establishments.

In various cities our appeal through chamber of commerce meetings has been very effective not only in arousing the genuine interest of individual executives but has been the means of securing concerted action of all executives to make industrial safety a reality in their community; and the result has been that in these plants more and better guarding is being done than ever before; safety committees are being organized; shop meetings of foremen and workers are being held; accident prevention has become a fixed part of routine and plant policy; interplant competition has been fostered solely through an educational presentation of the subject.

I have not touched on school safety education, even though it does undoubtedly influence the industrial accident situation, because it seems to me that this phase of the work should properly be carried on by and through the regular educational agencies of the State and

local safety organizations. However, when we have an opportunity in connection with our regular work to encourage it I think, of course, that we should make it a point to do so.

There are undoubtedly many other measures for the promotion and elaboration of industrial safety education which can and will be conceived by those engaged therein and which will develop as the work progresses. I have only recited what is now being done or is under contemplation by the organization under my charge. In conclusion I want to reiterate the points I have tried to make clear, namely, that State educational safety work can and must be greatly extended and intensified if accidents are to be reduced to a level that an enlightened moral sense will justify, and that education in industrial safety is after all a superstructure built on a foundation laid by faithful and earnest endeavor in the arbitrary enforcement of State laws by factory inspectors and that the success of educational work will continue to depend to a great extent on a continuation of the exercise of this authority.

The CHAIRMAN. Mr. Kearns gave us what practically amounts to a text book on the educational methods and phases of safety work with an introduction to each chapter. I am wondering whether we could not devote a few minutes' time now to a discussion of Mr. Kearns' paper while it is fresh in our minds. Doctor McBride, we will ask you what you are doing in New Jersey along similar lines.

Doctor McBRIDE. It is refreshing to see the great interest taken in this important question. Mr. Kearns and the ladies and other gentlemen who have participated in this safety program are to be commended for the splendid papers they have delivered to the association. I am sure we are deeply indebted to them for this service. I don't know of anybody who is more intensely interested in safety than the average doctor. By the very nature of his profession he must be an advocate of safety. He can't help but be intensely interested. I believe very much in the question of accident prevention; accidents can be prevented and cut down to a great extent. That statement offers no possibility of contradiction. We in New Jersey follow along the lines indicated by Mr. Kearns. We have a bureau of hygiene and sanitation conducted by one of our deputy commissioners of labor, who has devoted 15 years of his life to accident prevention. He is a very intelligent man, and I believe we are getting somewhere in New Jersey in accident-prevention work. We favor the safeguarding of machinery on an educational basis, as has been touched upon by Mr. Kearns. We go into the factories of our State, we go before our chambers of commerce, different social organizations, women's clubs, wherever we are invited, and sometimes we extend the invitation to ourselves. In that way we get pretty much before the public. Since I have been doing this work I have insisted that each industry in the State, where humanly possible, organize a safety program. In the first place, we ask each industry employing over 10 people to have a real, live, active, efficient safety organization in their plant. In the smaller plants there are fewer men on the safety committee of the plant. We don't want men to be members of that safety committee unless they are really of service. We want them to meet regularly and analyze accidents, the cause of accidents, and subsequent

prevention. We insist on that. We have instilled in the minds of industry that we are doing them a service, and that they are not making any special concession when they allow us to come out to their places to speak. Unless I can interest the plant manager on safety work, I do not visit the plant personally for that particular phase of activity unless to correct something that occurs in his plant which indicates that he is violating the law. I will not grace the plant with my presence unless he is sold with the subject of safety prevention. I quite agree with Mr. Kearns when he says unless the plant manager is absolutely sold on the subject of safety you can't expect to get very gratifying results from the employees of such a plant. I have prepared a paper on some of the things New Jersey is doing on safety work.

### SAFETY WORK OF STATES

BY ANDREW F. M'BEIDE, M. D., COMMISSIONER OF LABOR OF NEW JERSEY

A careful consideration of the perplexing elements involved in the effort to prevent industrial accidents will probably convince sober-minded, thoughtful people that punitive statutes based on force and fear will never equal in value or supplant in effectiveness voluntary efforts inspired by a sensible, moral appreciation of the protective responsibility imposed on the employer by the contract of hire.

In discussing the question under consideration to-day my experience with the administration of laws enacted for the purpose of providing a larger measure of industrial safety has convinced me that the cooperative method whose energizing force depends on popular approval is a more powerful engine for definite and constructive industrial reform than is the mere passage of laws that restrain the ordinary liberty of employers of labor.

An unflinching determination to drive home the unalterable ethics of this employment theory whose base rests firmly on our modern conception of industry's needs, when coupled with unflagging efforts to arouse and acquaint working men with the solemn character of the reciprocal obligation inseparable from the wage contract that implies willingness on their part to cooperate with employers, will do more to provide safe premises than all the threats of pains and penalties concomitant with the exercise of the police powers of the State.

I know that in our day when the law mills are busily engaged in grinding out a grist of unworkable, unmanageable, and inefficient laws a public man who draws attention to this practice is likely in bureaucratic quarters to find himself in bad standing with many of his associates. I am also conscious that certain fervid and enthusiastic reform groups whose tropical judgments in matters of common weal at times seem to be influenced more by a desire to accomplish an arbitrary purpose than anxiety to effect results based on sound experience, constructive endeavors, or practical engineering methods, with a zeal worthy of a better cause pin their faith on a multiplicity of labor laws that restrain, sometimes harass, and often immoderately handicap the natural rights of our fellow citizens.

I assume, of course, that we agree that the great majority of American employers are law abiding and that when definite engineering standards of safety practice have been prepared or approved

by the American Engineering Standards Committee and adopted by State departments of labor as a part of the safety program that the question of compliance is no longer debatable and delays should only hinge on the ability to alter premises, equipment, or processing methods without causing undue or ruinous effects on business.

While I am convinced that punitive legislation will not produce safety in industry I am not so visionary as to believe that the police power of the State should be absolutely abandoned and the numerically small group of employers who disregard safety principles be allowed to continue on their course unchecked. If defective plant structures, hazardous machinery, subtle trade poisons, or improper sanitary practices levy a heavy toll on the working efficiency of labor these derelictions should be called to the attention of employers and if, after proper official notice, recalcitrants continue to neglect to discharge statutory obligations, action should be taken unrelentingly to convince these sinister minds that a contumacious disregard for human life and health will not be tolerated by society in this age. When we examine the records that redden the statistical pages of our industrial accident bureaus and find that after approximately 40 years of experience by administrative bureaus drastic statutory procedure has done but little to stem the rising tide of accident frequency thoughtful men and women wonder how long it will take for the day to arrive when workers will not be required to pawn life, limb, and health in an effort to win a living in this modern period of civilization.

Although I am not so experienced in the practical administration of labor laws as some of my associates in this convention, I am sure I strike a popular chord when I express the conviction that the corrective force needed to provide greater safety in our industries is not more drastic law but rather a more active and energetic participation in safety matters that concern their daily lives by the rank and file of our workers who, after all, are the ones who pay toll in our annual accident tabulation.

I am sure, as there is nothing controversial involved in the question of human conservation, that the employer and worker may forget contemporaneous differences of opinion arising from wage bargaining and by putting forth their greatest efforts devote their energies to the work of saving our man power from needless waste.

Although our records in New Jersey would seem to show that a large percentage of all accidents is attributable to carelessness, negligence, and thoughtlessness on the part of the workers, I am not one who wants to charge the workers with a greater degree of folly than may be imputed to other working elements, for in the final analysis we are all workers—the executive in his office, the engineer in his drafting room, the superintendent on whose shoulders rests the responsibility of productive management, and indeed all those who are enlisted in the professional, technical, and supervising groups.

Realizing that recrimination will never provide a remedy or a solution of this problem, and that therefore no useful purpose will be served by speaking of the shortcomings of the employer whose failure to provide safeguards causes accidents, as measured against the careless tendencies of the workers whose thoughtless disregard of engineering rules prepared for their safety inevitably causes loss of life and

limb, I thought it would be more to the point to outline a definite program to which all classes could subscribe and which, if enforced with enthusiasm, understanding, and sympathy, might induce large masses of men to cooperate in a movement that might free industry from this fearful wastage of human life and limb.

While it has been stated that a large proportion of all accidents may be based on the indifferent attitude of workmen to safety measures, we should not shade too heavily on that point for the employer is responsible for tragedies that result from bad machinery, dangerous structures, and improper processing methods that should cause troubled sleep to the minds whose conscience has not been dulled to the most primal instincts of human understanding.

If I were to outline a program for the prevention of accidents in industry, I would suggest that all employers of labor subscribe to the following policy:

1. Provide safe premises and structures, proper lighting, sanitary appliances, safeguarded machinery, protection from dust, fumes, excessive heat, moisture, and poisonous trade substances.

2. Call all the workers of the plant together in a meeting, ask for their sympathetic cooperation in the safety movement, and appoint committees in every department of work.

3. Impress these committees with the responsibility of their position and hold them accountable for all accidents that take place within their jurisdiction.

4. Require these committees to hold monthly conferences and to keep careful records of same.

5. As an auxiliary to the work of these committees appoint a foreman in each department to be a member of the general committee and hold each foreman responsible for the safety of operations in his department.

6. Post suitable signs and bulletins throughout the plant; provide "stuffers" or other printed matter for pay envelopes, and if the plant is large enough provide a magazine containing safety news to be circulated among all workmen who are able to read.

7. If large numbers of foreigners are employed some work on Americanization (to impress this class of labor with their responsibilities as well as their rights under our Constitution) should be attempted.

8. Hold shop meetings of the entire plant at intervals, the frequency of which is to be decided by local conditions. Good speakers should discuss safety matters at these meetings and the point should be strictly kept in mind that simply making a noise is not making an effective safety speech. Speakers should be selected because of their knowledge and ability to perform this kind of service.

As the safety movement is neither autocratic, aristocratic, nor bureaucratic in its conception, I think you will agree with me that the successful consummation of its saving purpose requires the united support of every one of our citizens and that the complete democratization of industry can be accomplished only by submitting to the workers therein some intelligent program that, having won their earnest participation and active support, will inspire them to assume that share of the responsibility that may be fairly charged to them. I am hopeful that a better understanding of the peaceful policy that has made our country a leader in popular government that depends for its power and effectiveness on appeals to citizens to participate in the performance of public duty will be found no less powerful in industrial safety work than it has been in making possible the orderly and efficient administration of public affairs.

The CHAIRMAN. In Cleveland, Ohio, last September there assembled the greatest conference to date of the National Safety Council. There was registered at that convention people interested in safety

from all parts of the United States and Canada. The National Safety Council at the present time has about a hundred local safety councils scattered throughout the United States, with which many of us are in almost daily contact. It is a great force for safety, and hence it seems to me that this afternoon's session, which is considering safety throughout the United States and the Dominion of Canada, is peculiarly fortunate in having to come to it and speak of the cooperation between the State and the National Safety Council the man who presided at the great meeting held at Cleveland last fall, the president, Mr. C. B. Auel, of the Westinghouse Electric & Manufacturing Co., of East Pittsburgh.

#### COOPERATION BETWEEN THE STATES AND THE NATIONAL SAFETY COUNCIL

BY C. B. AUDEL, OF THE WESTINGHOUSE ELECTRIC & MANUFACTURING CO.

I am indeed happy to be here to-day as representing the National Safety Council and to participate in your program, particularly as it has to do in part with some of the less known phases of safety.

And is it not curious to find a subject developing into one so complex when most, if not all, safety men in the early days felt it to be only a simple one; that is to say, simple in that it was supposed to be confined almost wholly to the industries and to the mechanical safeguarding of tools and equipment in them, although even this at times still seems impossible to accomplish.

I am not so sure but of the several phases now developing the matter of health, originally never considered as entering into the problem in any way, will ultimately prove to be the greatest single phase of the safety movement in the industries. And I can not further conceive of any medium equal to this movement for unconsciously impressing upon the public generally the necessity of more attention being paid to health, the lack of which attention was brought home to us so forcefully during the war.

In evidence of the increasing attention which health matters are commencing to receive from employers, it is only necessary to mention physical examination as a requisite to employment, as well as subsequent periodic examination, dental and optical work, venereal diseases, etc.

To those disposed to question the connection between health and accident prevention work, if there are any such, and to claim that items like those cited are being taken up by employers more in endeavors to reduce sickness absenteeism, totaling as it does from six to nine days per year per person, may I say that such a reply is true, but in part only, as would also be the statement that many employers are doing a certain amount of health work for purely humanitarian reasons. Additionally, however, it is a fact that there is an even more important reason than either of those given for doing health work.

Our compensation laws are becoming more and more liberal in scope, either purposely made so or else so interpreted by enforcing authorities, so that employers are now held wholly responsible even for accidents not disabling in themselves, but which simply aggravate preexisting conditions, these in turn producing disability. And is it not the height of unfairness to allow employers no credit for restoring to normal injured workers whose health has been previously more

or less undermined by disease but whose complete rejuvenation must be undertaken in order to assist their recovery from accident? Under such circumstances employers must take cognizance of health conditions, whether they would otherwise do so or not.

Accident statistics leave much to be desired at the present time and estimates are even worse; but comparing figures obtainable for fatalities 15 years ago with returns of to-day, there has unquestionably been a steady lessening year by year of industrial and public utility fatalities, running into a total reduction of several hundred thousand for the intervening years.

Notwithstanding, however, this gratifying lessening of accidents in the industries and the public utilities the advent of the automobile has injected a new element into the accident situation, more than offsetting any previous gains, so that the problem of safety as a whole is assuming graver proportions than ever. With an annual increase in the killed from all causes now totaling about 86,000, with present estimates varying from 2,000,000 to 10,000,000 injured, with financial losses, direct and indirect, running well into the billions of dollars, this country is confronted with one of the most important economic problems ever before it. As emphasizing its gravity, comparison need only be made with the accident (fatal) records of some of the leading European countries:

*Fatalities per 1,000,000 population*

United States.....	860	Germany.....	384
Italy.....	840	Belgium.....	327
Switzerland.....	618	Holland.....	303
France.....	477	Denmark.....	223
Great Britain.....	473		

And among these countries are our leading competitors. We can feel assured, however, that if they have less accidents than we have, we have at least not attempted the impossible when we set ourselves the task of reducing our present high figures. This country is further ahead than any other country in organized accident prevention work; but, notwithstanding, the people of other countries have not such a highly developed national vice as carelessness with which to contend, and this it is which is counting so heavily against us.

Study and experience in the industries make it appear that the problem of accident prevention in them has three partial solutions which, successfully met, would comprise a fairly complete solution—namely, mechanical or equivalent safeguarding, say, 25 per cent; safety organization, 25 per cent; and safety education, 50 per cent.

It would seem as if these features would also apply to accident-prevention work in other places—in the homes, on the streets, and along the highways. Whether or not the same proportions hold is immaterial; in fact, certain industrial plants have already progressed so far in prevention work that accidents in them due to the lack of safeguards may be considered negligible and the two remaining items accordingly take on even larger proportions.

Whatever worth while has thus far been accomplished in accident prevention has been due to no single agency but to many agencies working, unfortunately, more or less independently—among them the States and the United States, the Red Cross, the industries, the

public utilities, the engineering societies, the National Safety Council, various other public as well as private bodies, etc.

The National Safety Council is a wholly nonprofit institution having had its inception in 1913, its first name being the "National Council for Industrial Safety," and appropriately named at the time.

It was hoped to attract the attention of the industries to it as a clearing house, where accident experiences might be exchanged and where an intensive analysis of the accident situation could be made and remedies perhaps applied, previous study on the part of a few far-seeing individuals appearing to indicate the possibilities of effecting considerable improvement through concerted and combined effort. The plan was successful from the start and the Council has steadily grown, enlarging its activities to meet the growing problem, and changing its name meanwhile to correspond. At the present time it has a membership of 4,200 corporations and others, including 500 foreign members, operating over 8,000 workshops and employing approximately 6,000,000 workers. It has a headquarters staff of 62 members with 5 traveling secretaries, and its annual income is well along toward \$1,000,000. The annual congresses, having almost 100 sessions and over 300 speakers, are so well patronized, with an attendance of over 3,000, that it is already a matter of concern as to where they shall be held, owing to the lack of suitable hotel facilities in the majority of our cities.

It has, moreover, established 68 community or local councils in various parts of the country, which are spending almost \$500,000 annually in the cause of safety.

Over 1,000 of our membership are serving on various committees without compensation, and as showing what this really means may I quote from my address as president of the National Safety Council last year:

We have in our safe practices pamphlets, the finest safety literature extant. These are being constantly increased, as well as being kept up to date. The subjects for these pamphlets are first decided upon by the engineering section of the council and, after approval by the executive committee, are drafted into preliminary shape by the headquarters staff. They are then submitted for comment to a board of 75 engineers, men of mature judgment, selected from our varied membership, whose combined experience covers many fields and who, in thus going over these pamphlets, adding to and subtracting from them, place gratuitously at the disposal of the council knowledge of inestimable value. To bring home more forcibly to you the really immeasurable value of such service, the salaries of these men undoubtedly run from \$5,000 to \$10,000 and higher; yet even assuming the lower salary of \$5,000 for every one of them and an average business and engineering experience of 15 years, the concerns with which they are connected have expended jointly on their education a total of almost \$6,000,000, and upon this great source of knowledge the council is at all times free to draw for help. This, however, is not the only source of our strength; it is but one of many sources, for our talent is not confined to these 75 men, since our membership approximates 4,200 or more than fifty times as many, so that it would be rather hard to state, much less to overstate, the quality of the talent supporting us in our various endeavors.

Our service to members is actually being rendered at less than cost, due to the income from its calendar, the sales of which last year exceeded 600,000, and besides the safe practices pamphlets already alluded to includes our monthly magazine, posters, films, slides, pamphlets, booklets, calendar, bureau of information, meetings, the annual congress, reports of special investigations, etc.

Much information in addition is broadcast to the public at large through the daily papers, as well as through trade, technical, and class publications, and over the radio.

A great deal of work has also been done by us in the public and parochial schools, a large part of which has been made possible by financial aid over several years at the rate of \$35,000 per year extended by the National Bureau of Casualty and Surety Underwriters, who have further helped with their counsel and advice. Three of our field secretaries have paid extended visits to 115 cities and have assisted in organizing safety work in the schools in many ways, including the formation of junior safety councils. Some of the results of these efforts are already in evidence, as instance the reduction in fatal accidents among the school children of Detroit to 40 per cent of what they were; and in Louisville from 23 fatalities the year before safety teaching was introduced to 14 the year following, then to 8 the next year, and now almost a year with none; or in Springfield, Mass., the reduction during the past year of fatalities from 10 to 2 among school children, while fatalities among children of preschool years actually increased.

We have already held 17 one-day conferences this year in as many different cities, such as some of the states hold annually, and have 11 others scheduled—these in addition to 25 industrial safety schools and 20 safe drivers' schools, each usually made up of six separate meetings, and having a total attendance of over 20,000.

We are affiliated with other organizations in their accident-prevention work, among them the large engineering societies, the Red Cross, the National Electric Light Association, and the American Gas Association, and are supporters financially and otherwise of such movements as the American Engineering Standards Committee and the national conference on street and highway safety, otherwise known as the Hoover Conference.

In the American Engineering Standards Committee we are represented on the mining standardization and safety code correlating committees and have acted as sole or joint sponsors for eight safety codes, serving on a total of 34 code committees in developing what we hope will ultimately become national safety codes.

In addition to what has been enumerated we have made comprehensive safety surveys in no less than 12 cities—among them Kansas City, St. Louis, Cincinnati, Cleveland, Toledo, Syracuse, Richmond, etc.—pointing out what may be done to improve traffic and public safety in them. The statistics of the national conference on street and highway safety showed there were six cities that for two consecutive years had accomplished a reduction in automobile fatalities, and it is certainly significant that in all six cities our community or local safety councils are located.

A special investigation on benzol poisoning has recently been made at an expense of \$5,000 by a committee with Dr. C. E. A. Winslow, of Yale University, as chairman. He is also acting as chairman of another of our committees on spray painting, for which we are appropriating \$10,000.

Our members will further be found responding freely and gratuitously to calls for their services, appearing on the programs of many conventions.

This is an organization, all too briefly sketched, which not only continues to offer you its aid but will be equally glad to continue to receive aid from you.

The problem of safety is so big as to require the help of every organization and every individual having the welfare of our country at heart, all working together to develop a constructive program.

You can be of assistance to us by joining the council where you have not already done so, participating in its activities, advertising it, and urging others to join. We can be of help to you by spreading our organization and its activities through your respective territories, taking part in your conventions, and helping you to organize and address meetings, establish safety courses, and develop safety work, both in the industries and in the schools.

We should like nothing better than to have you attend the coming congress at Detroit, where we should be glad to give you a conference room and afford you every opportunity to become better acquainted with us and our work.

## DISCUSSION

Mr. HALL. You spoke of the number of accidents in the United States due largely to carelessness as being above that of other countries. Is the fact also admitted that the United States produces more than other countries, especially in the coal mines and other industries?

Mr. AUEL. There is of course a good deal of truth in what the speaker has said, as seen in my statement. I simply quote informally what others have told me. I lived four years in Europe, so that in addition to what others told me, I have observed. During the four years I lived in Europe I never saw a fire there. I mention that as indicating that carelessness is one of the big national vices, and certainly we have it more highly developed than any of the European countries. I don't think there is any use in shutting our eyes to the problem, and it is absolutely a fact that carelessness is responsible in our own works, which are typical of, I think, the majority of works. Borrowing the safety department's figures, not 75, 80, or 90, but up to 99 $\frac{3}{4}$  per cent of practically all our accidents in the past six or seven months (barring one, so far as I know, and that was due to defective material) could be attributed to nothing else than carelessness. Of course there may be an underlying reason for carelessness. I feel quite sure as a result of study that what we have been prone to call carelessness may be and is an effect and not a cause. You ask me, then, if carelessness is an effect and not a cause, what is the cause of carelessness, and I will say there is carelessness pure and simple, and some things a good many people have been calling carelessness are really due to worry and ill health.

Mr. HALL. That didn't exactly answer my question, but the last statement bears out that. The United States is producing as much as ten times more than the workers in Europe. Naturally a man where he has to get out mass production has to become careless regarding his own safety. Don't let us be stampeded that the American worker is any more careless. He is swifter, and he has therefore

to take more chances. It is up to the manager to see that he has the proper protection.

The CHAIRMAN. The next paper and demonstration are on the use of motion pictures as an aid to accident prevention.

### MOVING PICTURES IN ACCIDENT PREVENTION WORK

BY ROBERT B. NORTHRUP, SAFETY INSPECTOR, BUREAU OF INDUSTRIAL HYGIENE,  
NEW YORK STATE DEPARTMENT OF LABOR

When a certain procedure has been decided upon in academic training we have heard the saying, "That will be a stairway to learning." With the introduction of the motion-picture film into educational lines the saying may be changed to a "moving stairway to learning." This reminds us of the moving stairways or escalators in the great department stores that lift us easily, without fatigue to ourselves, from floor to floor.

[The next four paragraphs are excerpts from Motion Pictures in Education, by Don Carlos Ellis and Laura Thornborough:]

"Through the use of motion pictures in school and college students are taught quicker, with less fatigue or strain, and retain the information better. Pictures are able to standardize impressions and make them clear and complete, uniform, lasting, and specific. By them the abstract can be made concrete, the absent present. They overcome time and space. Rapid processes can be slowed down and analyzed; slow processes can be accelerated; inanimate objects animated; dead facts made to live and pulsate. Attention can be held and concentrated and the memory more deeply impressed by moving images. Scientific experiments and demonstration performed with ideal equipment under the best possible conditions as well as operations performed in the clinic can, by means of motion pictures, be repeated indefinitely anywhere. Microscopic life can be enlarged many times on the screen, so that what can ordinarily be seen with difficulty through the microscope by only one at a time can be easily viewed on the screen by an entire class. By animated drawings and models, the electric current passing through a series of wirings of an electric motor, the nervous impulses passing between various parts of the body and brain, or the circulation of the blood through the body can be visualized. These are but examples of the vast field that can be utilized.

"The cinema expands the experience of the pupils by bringing to them the whole wide world—things as they are. Rushing rivers, the bubbling lava, caldrons of great volcanos, waving fields of grain, vast forest fires, storm clouds, and the mighty ocean with its pounding surf. When geography is studied they are transported as if by magic to the scenes of their studies, where they live among the native people. They study biology, and the films bring the living animal life of the world and its native environment to the classroom. In geology the formation of the mountains and canyons through the slow process of the ages can by films of animated drawings be vividly presented to students so that they will never forget.

"Slow motion pictures define detail—the flower bud slowly opens to a full bloom flower or the dragoon fly emerges from its chrysalis.

Every movement may be analyzed and the memory of the animations will last far longer than is the case when the student reads about such processes abstractly, coldly and distantly in a textbook.

"Tests to show the teaching efficiency of motion-picture films as measured by results obtained by the teacher in the classroom have been made. One of the most significant was conducted to determine the effectiveness of four different methods of presentation: (1) The study of the printed lesson; (2) the same lesson presented orally by the teacher; (3) the lesson depicted by a film; and (4) the film presentation accompanied by explanatory comments. A summary of the results gave evidence that 'teacher' scored lowest, 'study' came next, 'film alone' scored a little higher, and 'film lecture' made the highest score of all. Another test showed: Films alone scored an average of 75.5; the superior teacher scored 66.9; the average teacher scored 61.36. The significant feature of this test is that the film alone beat the best teacher 8.6 per cent and the average teacher 14.14 per cent, yet experience has proved that the best results of all are obtained by a combination of the three—accurate text, efficient teacher, and a truly educative film."

Users of films should know that certain limitations can be overcome. Let us take the matter of eyestrain: Do not use a faulty projection or old badly scratched film. With well-maintained modern projectors, fresh prints from the master negative, and a suitable distance from the screen no appreciable eyestrain results. The fire hazard may be eliminated by the use of noninflammable film stock now on the market and by the use of projection booths constructed of fire-proof material. These booths can be constructed permanently or may be obtained in the portable type so that they can be transported from place to place.

Motion pictures and their projection are expensive as compared with still photography, but when measured with the cost of other educational equipment generally the expense is not so high but that this work easily passes into the category of "necessary equipment."

There are many motion-picture bureaus distributing educational and industrial films. Public libraries are filing information of these sources, which include the name of the picture, a brief outline of the subject, the name of the purveyor, and the cost of rental.

#### AS APPLIED TO ACCIDENT PREVENTION WORK

Statistics in New York State show that only 27 per cent of all compensated industrial accidents are due to machine hazards. This is largely the result of years of work on machine protection. The balance of 73 per cent of such accidents results from unsafe physical conditions, lack of trade ability, improper handling of tools and objects, unsafe methods in operating machines, falls, careless practices, and kindred conditions.

It follows that the human factor must be considered; that educational measures must be used to stimulate mental alertness until people are trained to instinctively work safely and avoid danger. The labor department is now working on this problem through four avenues—verbally in lectures given at industrial plants, through

bulletins and publications, by photographs, and finally by means of moving pictures.

Many of the industries in this country in the years that have passed protected their machinery, walk ways, etc., and considered it sufficient. Accidents decreased but to no valuable extent. This experience showed the necessity for education in accident prevention principles and cooperation between all forces that are working on the problem. Let me define the word education as it is used in this connection. It is not in the sense of mental instruction in mathematics or history; rather an instructive propaganda—a constant agitation in the principles of safety first, hygiene, and sanitation. Cooperative accident prevention committees of executives and workers are formed in industrial plants. Shop talks are given, social activities constituting safety rallies are held, safety poster service is instituted, in fact well-organized service has functioned until some concerns have reduced their accidents as much as 85 per cent. Many industries do this valuable work; the mass do not, and it is the duty of the State to reach the latter and instruct them in the principles of organized safety work and the specific causes of accidents and the remedy therefor.

Motion pictures are valuable for this work, since an operation done in an unsafe manner can be seen in moving detail from start to finish; conversely, the safe way can be shown. The worker hears that a safety lecture is to be given and stays away. He learns that a motion picture is to be shown and subconsciously feels the call of the amusement or interest feature of it and attends. The operator who sees in a motion picture a man theoretically killed when operating a circular saw in an unsafe manner will, 99 times out of 100, think of the safe way to operate that saw when he again begins his work. It would seem that this is only human nature.

The subjects whereon film pictures will give graphic aid in preventing accidents are endless. But a few are quoted as examples: A story picture which includes industrial settings with an accident and its moral; reels of technical pictures showing artisans working the right and the wrong way which really means the safe and the unsafe way; (one great source of accidents lies in the fact that many so-called mechanics do not know how to handle their tools or operate their machines) the right and the wrong of situations and conditions—i. e., work clothes, shoes, chairs, floors, housekeeping, falls, falling objects, handling heavy objects, horseplay, poisonous substances, etc.

Already sufficient work with the cinema has been done in this line to develop some of its reactions on an audience of workers. The picture must not be over one-half hour in duration (two reels) and at least one-third of the picture should be of human interest—domestic scenes or a bit of comedy.

The art of producing safety moving pictures is entirely different from taking purely amusement pictures. In the latter the subject or story, the ability to act well, settings, scenery, etc., are of paramount importance. In accident prevention work acting must be subordinate to trade knowledge. There will be those in an audience who both know the trade depicted and are critical. If a person demonstrating an operation on a machine, either the safe or unsafe

way, shows a lack of knowledge of the trade and makes mistakes, the lesson that is being conveyed loses practically all of its value.

The picture "Woodworking hazards" that will now be shown is in conjunction with a field study and analysis, by the New York State Bureau of Industrial Hygiene, of 300 in woodworking factories (Bulletin 139).

All of the accidents that are shown have occurred, many repeatedly. We have endeavored to make the action sufficiently slow that all movements will be clear and defined. The film will be shown primarily to groups of woodworkers throughout the State by our lecturers.

[Mr. Northup then filmed two and a half reels of pictures entitled "Woodworking hazards."]

The CHAIRMAN. I think we are all interested in knowing what New York is doing. Mr. Sweetzer was unable to come to this conference. We all know Mr. John P. Meade, of Massachusetts, who has been here throughout the conference, and is going to comment on what is being done in Massachusetts in general in Mr. Sweetzer's place.

### INSPECTION AND SAFETY IN MASSACHUSETTS

BY J. P. MEADE, DIRECTOR INDUSTRIAL SAFETY, MASSACHUSETTS

Experience in dealing with units of hazardous exposure has resulted in a system of factory inspection practical in detail. Danger points in the industrial establishments are now accurately located. Causes of injuries are well known. They are made the object of intensive analysis by those authorized by law to make industry safe for the employee. Effort is made to deal effectively with the contributing factors for the purpose of saving life and preventing loss of working hours. This appears to be the experience of all the industrial States.

Some achievements have been accomplished since this activity became an integral factor in the industrial field. Machinery accidents have been reduced. Exercise of the police power has done much to make this possible.

Legislative enactment controlling recognized work dangers was the initial effort in this direction. Hazards of power transmission equipment attracted early attention and statutes were made to require safeguarding of the dangers. General laws for this purpose were not successful. They were lacking in specific detail and did not promote uniformity for enforcement through systematic inspection work. Injuries sustained at the point of operation were not adequately provided for in such legislation.

It was when State legislatures recognized that law making for the control of these technical hazards should be exercised by those experienced in the traditions of the dangerous trades that potential means were adopted for the prevention of work accidents of this kind. This marked the beginning of effective accident prevention work under the auspices of State authority. Regulations to control dangerous machinery contact resulted from the combined effort of employers and workmen well trained in the industry and often supervised by the constructive ability of the expert. Here was the

foundation for effective safety inspection work. Its basis rested upon mutual cooperation with laws made to govern the industry of which workmen and employers were integral parts. Experience in the industries of Massachusetts indicate that these forces have operated to produce a substantial reduction in accidents due to contact with machinery. Some interesting facts are available to make this statement clear. Take this one:

In 1918, 77,509 tabulatable injuries were reported in Massachusetts, of which 19,640 were caused by machinery; in 1925, 58,475 tabulatable injuries occurred, 7,961 being due to contact with machinery. These figures indicate that tabulatable injuries dropped 25 per cent while machinery accidents fell off approximately 59 per cent.

In the absence of total employee exposure hours there is room only for conservative statement, but accidents on machinery have diminished to such an extent that even in the absence of this information the case is clearly proved. This is shown by a close analysis of the different types of machinery injuries. The major portion of these occurred at the point of operation.

In 1918 the number of accidents of this type reached a total of 16,113, or 82 per cent of all machinery accidents. In 1925 there were 5,333 of these accidents, or 67 per cent of all occurring on machinery. This result came from uniform factory inspection work with a definite plan of attack. Through this system attention was directed to well-established danger points. This in turn reduced the number of work accidents.

Even more convincing proof of this point may be adduced from the experience with accidents on gears, belts, and set screws. In 1918 the total number of accidents on gears was 934, and in 1925, 246. This was a decrease of 74 per cent. In 1918 there were 743 accidents on belts, and in 1925 the number fell to 320, showing 57 per cent decrease. Accidents on set screws for 1918 reached a total of 91; in 1925 they fell to 40, or 56 per cent less than in the former year. These results indicate clearly practical accomplishment in the prevention of injuries to employees through employment in connection with machinery. Other agencies have contributed to this result. Safety engineers and organizations composed of employees and management have each contributed an important part. They constitute efficient agencies when they function effectively. The State labor department, with its staff of trained and competent inspectors, well informed as to danger zones in the hazardous industries, have steadily maintained interest in the main purpose of this work. These are the driving factors in the reduction of machinery accidents.

Turning to nonmachinery injuries, there is no such encouraging history. Accidents due to falls, the handling of objects, or the use of hand tools still maintain their large volume. No reduction has taken place in these. Accidents due to falls almost equal those caused by contact with machinery. Wide investigation of these accidents has proved the need of greater care in the examination of the floor conditions as an important factor in the work of factory inspection.

In plants where the worn surface creates the slipping hazard and floors are frequently made dangerous through the spilling of liquid

substances, this becomes essential for accident prevention work. Injuries sustained through falls frequently develop into permanent partial disability. This means reduced earning capacity to the employee and often includes the problem of rehabilitation. Broken wrists, fractured limbs, and general shock to the nervous system are common types of injuries sustained under these circumstances. These are nearly all preventable injuries. It is here that plant safety organizations constitute a potential factor. Supervision of this kind directing attention to the need of exercising due care has accomplished more in many plants than the enforcement of provisions authorized by statute.

Factory inspection of the future should be directed more intensively to reducing nonmachinery injuries. To accomplish results in this direction it must deal effectively with existing risks to vitality and health. Dust-removal systems should be given frequent and regular inspections. Adequate local and general ventilation should be maintained. Control of fumes and dust should be effectively established at the point of origin.

Losses sustained through diseases of occupation can not be adequately demonstrated in figures. Injuries caused through the inhalation of metallic, mineral, or organic dusts often become more serious to the employee than the result of traumatic amputations. The entire program of factory sanitation is in close relation to this problem. This includes compliance with requirements for pure drinking water, proper lighting, washing, and toilet facilities, and suitable care for persons injured or taken ill upon the premises of industrial establishments.

Factory inspection reaches its highest degree of efficiency when it is associated with the investigation of occupational injury. Through accident investigation in every industry the inspector comes in contact with the experience of its human side and learns accurately its relation to factory plant hazards. Technical knowledge acquired from this practice provides the basis for effective rules and regulations in the control of machinery operations. Through this experience the power punch press is brought out prominently as an important factor in the accident frequency of the plant and becomes a problem for the expert in prevention work. If his attention is directed to an accident in a furniture factory in which the workman sustained amputation of fingers, the inspector quickly learns that the circular saw constitutes a dominant machine hazard in the plant. This system promotes efficiency in the administration of labor laws. It checks up the inspection work and is indispensable in the enforcement of the statutes protecting the welfare of children. No method of child labor law enforcement can equal that which has for its leading duty the investigation of injuries sustained by children in employment.

Usually classified as nonmachinery accidents are those sustained in the building trades. Constant waste of man power taking place in this industry is a challenge to experts in accident prevention work and State labor departments as well. Few large buildings are constructed without sacrifice of life. This is the general experience in America. Exceptions to the rule are few.

Frequent changes in staging and scaffolding, the handling of unwieldy material, conditions arising at elevator or hoistway openings,

and the dangers attendant upon excavations all combine to furnish work injuries in large volume. Accident prevention work in this industry should be organized from within. The saving of human life in building operations should be made an integral principle of the industry and activities in this direction made adequate for the purpose. The police power alone will not accomplish enough.

The Boston section of the National Congress of the Building and Construction Industry is now engaged in an exhaustive inquiry into the existing means and methods for the prevention of injuries to employees engaged in these trades. Included in the membership of this organization are men prominent in the business world, such as architects, engineers, contractors, subcontractors, leaders of labor organizations, and representatives of companies engaged in the furnishing of material. It is proposed to devise efficient means for the saving of man power and the prevention of economic waste sustained through injuries to workman. This is an encouraging indication. It shows that active sentiment is growing in the building-trades industry to prevent human suffering and the loss of life.

State departments would accomplish much for accident prevention in stimulating movements of this kind and thus supplementing the work of the police power in making the places of employment free from danger.

I would only say in conclusion that the events of this afternoon I think impressed every one of us with the importance of work along this line. Our function will be to hand down the same impression and the same encouragement we have received to those men and women who inspect these industrial plants. The day is here when the qualifications for an inspector demand not only intelligent persons, not only those well equipped with industrial training, not only the specialist in industry, but the men and women, to some extent at least, who have a high appreciation of the importance of the work they are doing. I think if we succeed in bringing that home to our different States this convention will have proved a success.

The CHAIRMAN. I will now turn the meeting over to the president of the association, Mr. Herman Witter.

The CHAIRMAN (Mr. WITTER). The next order of business is unfinished business. I believe under this head we have a resolution that was omitted yesterday. I will ask the secretary to read it.

[The resolution was read and adopted, being resolution 7, page 81, on printing of proceedings of convention.]

Mr. BALDWIN. On behalf of Mr. Ethelbert Stewart I wish to express his regret at his inability to be here. It was with very deep regret that he was detained, a change in his plans denying him the pleasure of being with you at this convention. As to this resolution I can say to you for him that he will be pleased to print the proceedings of this year's convention as you have requested him to do.

The CHAIRMAN. We certainly have missed the presence of Ethelbert Stewart at this convention. His guiding hand has helped this association out of many difficult situations. We appreciate everything and anything he will do for us. Is there any further unfinished business? There is a report of the committee on constitution and by-laws.

**REPORT OF COMMITTEE ON CONSTITUTION AND BY-LAWS—RESOLUTION**

*Resolved*, That Section 2, Article VII, paragraph 3, be amended to read, "Shall apply to the vote for selecting convention city and to the general business of the convention."

[By vote, the resolution was tabled.]

The CHAIRMAN. The next order of business is the report of the committee on officers' reports.

**REPORT OF COMMITTEE ON OFFICERS' REPORTS**

The committee on officers' reports and audit of accounts submits herewith the following report and recommendations:

The committee has examined the accounts and financial statement of the secretary-treasurer and find them correct in every detail.

In connection with the financial statement attention is called to the contribution of \$50 made by this association to the National Association of Legal Aid Organizations to assist in the work of standardization of laws regulating the collection of small wage claims. This is in accordance with the action taken at the convention in Salt Lake City in August, 1925.

A summary of the secretary's report shows that 28 States and Provinces paid dues during the fiscal year amounting to \$595; that the funds on hand August 1, 1925, were \$741.26, and interest on savings account, \$6.70, making the total receipts \$1,342.96; that the disbursements, including printing, postage, stenographic services, traveling expenses, salary of secretary, etc., amount to \$656.85, leaving a balance in the treasury as of June 10, 1926, of \$686.11. Of this amount, \$493.83 is represented by deposits in a savings account, and \$192.28 by a checking account.

A gratifying situation indicated by the report is the interest and support from the various States as evidenced by the increasing number of dues-paying members, 28 this year as compared with 24 the preceding year.

In connection with the matter of dues the committee suggests that the association consider whether there may be need for reclassification of some of the States in this respect—whether, for example, any of the States now paying the minimum dues should, on the basis of size come into the next classification and whether any now paying \$25 should be changed to the classification for \$50 dues.

The committee wishes to express its appreciation for the excellent form in which the secretary's records have been kept and for the efficient conduct of the business of the association.

As the report of the president is represented, not by a formal statement with recommendations for future action but by a record of work accomplished, it is legitimate for the committee to pay tribute to that work and to the active cooperation of the other members of the board, especially to that of Mr. Lansburgh, of Pennsylvania.

We would therefore refer to the splendid constructive program for the convention, in the preparation and conduct of which all of the officers participated—the excellency of the speakers chosen; the topics represented; the general arrangement; the freedom from overcrowding; and the opportunity for discussion afforded; and in this connection to the close adherence to scheduled time which has made the sessions particularly profitable.

We would also refer to the hospitality and entertainment provided—to the constant attention to the comfort and convenience of the delegates and guests which has made the visit to Columbus so enjoyable.

And, finally, we would refer to the devoted and untiring efforts of the president on behalf of the association—his modest self-effacement, his generous recognition of others. The committee wishes to take this opportunity to express its appreciation for this work, regarding service of this nature as the most admirable form in which a president's report can be presented.

Respectfully submitted.

ETHEL M. JOHNSON, *Chairman*.  
W. H. HORNER.  
F. E. WOOD.  
M. H. ALEXANDER.

[A motion that at the opening of the next session the question of admitting the Bureau of Mines to membership in this association be considered and the constitution amended accordingly was adopted. The association voted to hold its next convention in New Jersey.]

#### ELECTION OF OFFICERS

The following officers were elected for the ensuing year:

*President*—John S. B. Davie, commissioner bureau of labor, Concord, N. H.

*First vice president*—R. H. Lansburgh, secretary of labor and industry, Harrisburg, Pa.

*Second vice president*—R. T. Kennard, workmen's compensation board, Kentucky.

*Third vice president*—Maud Swett, director woman's department, industrial commission, Milwaukee, Wis.

*Fourth vice president*—H. C. Hudson, general superintendent Toronto Employment Service, Ontario, Canada.

*Fifth vice president*—M. H. Alexander, deputy labor commissioner, Denver, Colo.

*Secretary-treasurer*—Louise E. Schutz, superintendent division of women and children, industrial commission, St. Paul, Minn.

[After the election of John Hopkins Hall, jr., of Virginia, as the official representative of this association at the industrial accident prevention conference to be held in Washington, D. C., July 14 to 16, 1926, the convention adjourned.]

## APPENDIX

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### LIST OF PERSONS WHO ATTENDED THE THIRTEENTH ANNUAL CONVENTION OF THE ASSOCIATION OF GOVERNMENTAL LABOR OFFICIALS

#### CANADA

##### *Federal Department of Labor*

F. J. Plant, chief labor intelligence branch, Ottawa.

##### *Ontario*

H. C. Hudson, general superintendent employment service, Ontario offices,  
Toronto.

#### UNITED STATES

##### *Federal bureaus, Washington, D. C.*

W. W. Adams, statistician, Bureau of Mines.

Mary Anderson, director Women's Bureau.

Chas. E. Baldwin, assistant commissioner Bureau of Labor Statistics.

E. N. Matthews, director Industrial Division, Children's Bureau.

Emma Ward, Bureau of Labor Statistics.

##### *Colorado*

M. H. Alexander, deputy labor commissioner bureau of labor statistics, Denver.

##### *Georgia*

L. J. Kilburn, industrial commission, Atlanta.

H. M. Stanley, commissioner department of commerce and labor, Atlanta.

##### *Indiana*

Dixson H. Bynum chairman industrial board, Indianapolis.

Mr. Reeves, employment service, Indianapolis.

##### *Kansas*

Daisy L. Gulick, director women's work and factory inspector, Topeka.

##### *Kentucky*

R. T. Kennard, chairman workmen's compensation board, Frankfort.

##### *Louisiana*

Frank E. Wood, commissioner bureau of labor and industrial statistics, New  
Orleans.

##### *Massachusetts*

Martin Carpenter, of Dennison Manufacturing Co.

Ethel M. Johnson, assistant commissioner department of labor and industries,  
Boston.

J. P. Meade, director division of industrial safety, Boston.

*Minnesota*

Henry McColl, member industrial commission, St. Paul.  
 Louise E. Schutz, superintendent division of women and children, industrial commission, St. Paul.

*New Hampshire*

John S. B. Davie, commissioner bureau of labor, Concord.

*New Jersey*

Mrs. Lillian M. Gilbreth, Montclair, N. J.  
 A. F. McBride, M. D., commissioner department of labor, Trenton.

*New York*

H. W. Mowery, secretary National Safe Walkway Surfaces Code Committee.  
 Robert B. Northrup, safety inspector department of labor New York.  
 C. T. Graham-Rogers, bureau industrial hygiene, New York.  
 Mary Van Kleeck, director department of industrial studies, Russell Sage Foundation, New York.

*Ohio*

O. W. Brach, chief division of labor statistics, Columbus.  
 E. R. Hayhurst, M. D., consultant industrial hygiene, department of health.  
 T. P. Kearns, superintendent division of safety and hygiene, Columbus.  
 Elizabeth S. Magee.  
 B. C. Seiple, Cleveland superintendent Ohio State Employment Service.  
 James Wilson.  
 H. R. Witter, director department of industrial relations, Canton.  
 Division of factory inspection—lady visitors:

Lauretta Bean.  
 Blanche E. Cadot.  
 Eurie E. Foreman.  
 Lillian McMahan.  
 Lodema Matzinger.  
 A. C. F. Miller.  
 Teresa O'Maley.  
 Bertha Saltgaver.  
 Gertude S. Weaver.

## Division of factory inspection—inspectors:

C. A. Benedict, chief division of factory inspection, Columbus.  
 George P. Butler.  
 R. Emmett Cannon.  
 W. D. Calhoun.  
 Wallace J. Camper.  
 Frank Christian.  
 Emmett L. Crider.  
 J. P. Cummings.  
 Charles Davis.  
 Edward Dickson.  
 William H. Ebersbach.  
 Harry G. Ehret.  
 W. W. Evans.  
 Frank Felsing.  
 Joseph J. Fournier.  
 Stephen Frankowski.  
 J. G. Hagan.  
 Thomas Hosty.  
 J. W. Hyser.  
 Loy C. Minch.  
 John Neary.  
 George W. Nesbitt.  
 Thomas Nichols.  
 M. F. O'Malley.

**Division of factory inspection—inspectors—Continued.**

Harry M. Peck.  
 George P. Rentschler.  
 George D. Richardson.  
 Dewey M. Scott.  
 Richard Shutt.  
 F. Leo Smith.  
 David L. Stygler.  
 George P. Thompson.  
 H. D. Titer.

*Pennsylvania*

Cyril Ainsworth, director bureau of inspection.  
 C. B. Auel, Westinghouse Electric & Manufacturing Co., East Pittsburgh.  
 Charlotte E. Carr, director bureau of women and children, Harrisburg.  
 W. H. Horner, director bureau of workmen's compensation, Harrisburg.  
 R. H. Lansburgh, secretary of labor and industry, Harrisburg.  
 Harry M. Lee, inspector of labor and industry, Pittsburgh.  
 William J. Maguire, statistician, department of labor and industry.

*Virginia*

Mrs. W. L. Ferguson.  
 John Gribben, chief factory inspector, Richmond.  
 John H. Hall, jr., commissioner bureau of labor and industry, Richmond.  
 Mrs. John H. Hall, jr.  
 T. S. Wharton, public employment bureau.

*Wisconsin*

Maud Swett, director women and child labor department, industrial commission, Milwaukee.

*Wyoming*

T. G. Freshney, commissioner of labor and statistics, Cheyenne.



## LIST OF BULLETINS OF THE BUREAU OF LABOR STATISTICS

*The following is a list of all bulletins of the Bureau of Labor Statistics published since July, 1912, except that in the case of bulletins giving the results of routine surveys of the bureau, only the latest bulletin on any one subject is here listed.*

*A complete list of the reports and bulletins issued prior to July, 1912, as well as the bulletins published since that date, will be furnished on application. Bulletins marked thus (\*) are out of print.*

### **Wholesale Prices.**

No. 284. Index numbers of wholesale prices in the United States and foreign countries. [1921.]

No. 415. Wholesale prices, 1890 to 1925.

### **Retail Prices and Cost of Living.**

\*No. 121. Sugar prices, from refiner to consumer. [1913.]

\*No. 130. Wheat and flour prices, from farmer to consumer. [1913.]

\*No. 164. Butter prices, from producer to consumer. [1914.]

No. 170. Foreign food prices as affected by the war. [1915.]

No. 357. Cost of living in the United States. [1924.]

No. 369. The use of cost-of-living figures in wage adjustments. [1925.]

No. 418. Retail prices, 1890 to 1925.

### **Wages and Hours of Labor.**

\*No. 146. Wages and regularity of employment and standardization of piece rates in the dress and waist industry of New York City. [1914.]

\*No. 147. Wages and regularity of employment in the cloak, suit, and skirt industry. [1914.]

No. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.

No. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.

\*No. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.

No. 204. Street railway employment in the United States. [1917.]

No. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.

No. 265. Industrial survey in selected industries in the United States, 1919.

No. 297. Wages and hours of labor in the petroleum industry, 1920.

No. 348. Wages and hours of labor in the automobile industry, 1922.

No. 356. Productivity costs in the common-brick industry. [1924.]

No. 358. Wages and hours of labor in the automobile-tire industry, 1923.

No. 360. Time and labor costs in manufacturing 100 pairs of shoes. [1924.]

No. 365. Wages and hours of labor in the paper and pulp industry, 1923.

No. 371. Wages and hours of labor in cotton-goods manufacturing, 1924.

No. 374. Wages and hours of labor in the boot and shoe industry, 1907 to 1924.

No. 376. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1924.

No. 377. Wages and hours of labor in woolen and worsted goods manufacturing, 1924.

No. 381. Wages and hours of labor in the iron and steel industry, 1907 to 1924.

No. 387. Wages and hours of labor in the men's clothing industry, 1911 to 1924.

No. 394. Wages and hours of labor in metalliferous mines, 1924.

No. 404. Union scale of wages and hours of labor, May 15, 1925.

No. 407. Labor cost of production and wages and hours in the paper box-board industry, 1925.

No. 412. Wages, hours, and productivity in the pottery industry, 1925.

No. 418. Wages and hours of labor in the lumber industry in the United States, 1925.

No. 416. Hours and earnings in anthracite and bituminous coal mining, 1922 and 1924.

No. 421. Wages and hours of labor in the slaughtering and meat-packing industry, 1925.

**Wages and Hours of Labor—Continued.**

No. 422. Wages and hours of labor in foundries and machine shops, 1925.

**Employment and Unemployment.**

- \*No. 109. Statistics of unemployment and the work of employment offices in the United States. [1913.]
- No. 172. Unemployment in New York City, N. Y. [1915.]
- \*No. 183. Regularity of employment in the women's ready-to-wear garment industries. [1915.]
- \*No. 195. Unemployment in the United States. [1916.]
- No. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, Minn., January, 1916.
- \*No. 202. Proceedings of the conference of Employment Managers' Association of Boston, Mass., held May 10, 1916.
- No. 206. The British system of labor exchanges. [1916.]
- \*No. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- No. 235. Employment system of the Lake Carriers' Association. [1918.]
- \*No. 241. Public employment offices in the United States. [1918.]
- No. 247. Proceedings of Employment Managers' Conference, Rochester, N. Y., May 9-11, 1918.
- No. 310. Industrial unemployment: A statistical study of its extent and causes. [1922.]
- No. 409. Unemployment in Columbus, Ohio, 1921 to 1925.

**Proceedings of Annual Meetings of International Association of Public Employment Services.**

- No. 192. First, Chicago, December 19 and 20, 1913; Second, Indianapolis, September 24 and 25, 1914; Third, Detroit, July 1 and 2, 1915.
- No. 220. Fourth, Buffalo, N. Y., July 20 and 21, 1916.
- No. 311. Ninth, Buffalo, N. Y., September 7-9, 1921.
- No. 337. Tenth, Washington, D. C., September 11-13, 1922.
- No. 355. Eleventh, Toronto, Canada, September 4-7, 1923.
- No. 400. Twelfth, Chicago, Ill., May 19-23, 1924.
- No. 414. Thirteenth, Rochester, N. Y., September 15-17, 1925.

**Women and Children in Industry.**

- No. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia. [1913.]
- \*No. 117. Prohibition of night work of young persons. [1913.]
- \*No. 118. Ten-hour maximum working-day for women and young persons. [1913.]
- \*No. 119. Working hours of women in the pea canneries of Wisconsin. [1913.]
- \*No. 122. Employment of women in power laundries in Milwaukee. [1913.]
- No. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories. [1914.]
- \*No. 167. Minimum-wage legislation in the United States and foreign countries. [1915.]
- \*No. 175. Summary of the report on conditions of woman and child wage earners in the United States. [1915.]
- \*No. 176. Effect of minimum-wage determinations in Oregon. [1915.]
- \*No. 180. The boot and shoe industry in Massachusetts as a vocation for women. [1915.]
- \*No. 182. Unemployment among women in department and other retail stores of Boston, Mass. [1916.]
- No. 193. Dressmaking as a trade for women in Massachusetts. [1916.]
- No. 215. Industrial experience of trade-school girls in Massachusetts. [1917.]
- \*No. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children. [1918.]
- No. 223. Employment of women and juveniles in Great Britain during the war. [1917.]
- No. 253. Women in lead industries. [1919.]

**Workmen's Insurance and Compensation (including laws relating thereto).**

- \*No. 101. Care of tuberculous wage earners in Germany. [1912.]
- \*No. 102. British National Insurance Act, 1911.
- \*No. 103. Sickness and accident insurance law of Switzerland. [1912.]
- No. 107. Law relating to insurance of salaried employees in Germany. [1913.]
- \*No. 155. Compensation for accidents to employees of the United States. [1914.]

**Workmen's Insurance and Compensation (including laws relating thereto)—**  
Continued.

- No. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions. Washington, D. C., December 5-9, 1916.
- No. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918.
- No. 301. Comparison of workmen's compensation insurance and administration [1922.]
- No. 312. National health insurance in Great Britain, 1911 to 1920.
- No. 379. Comparison of workmen's compensation laws of the United States as of January 1, 1925.
- No. 423. Workmen's compensation legislation of the United States and Canada. [1926.]

**Proceedings of Annual Meetings of the International Association of Industrial Accident Boards and Commissions.**

- \*No. 210. Third, Columbus, Ohio, April 25-28, 1916.
- No. 248. Fourth, Boston, Mass., August 21-25, 1917.
- No. 264. Fifth, Madison, Wis., September 24-27, 1918.
- \*No. 273. Sixth, Toronto, Canada, September 23-26, 1919.
- No. 281. Seventh, San Francisco, Calif., September 20-24, 1920.
- No. 304. Eighth, Chicago, Ill., September 19-23, 1921.
- No. 333. Ninth, Baltimore, Md., October 9-13, 1922.
- No. 359. Tenth, St. Paul, Minn., September 24-26, 1923.
- No. 385. Eleventh, Halifax, Nova Scotia, August 26-28, 1924.
- No. 395. Index to proceedings, 1914-1924.
- No. 406. Twelfth, Salt Lake City, Utah, August 17-20, 1925.

**Industrial Accidents and Hygiene.**

- \*No. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories. [1912.]
- No. 120. Hygiene in the painters' trade. [1913.]
- \*No. 127. Dangers to workers from dust and fumes, and methods of protection. [1913.]
- \*No. 141. Lead poisoning in the smelting and refining of lead. [1914.]
- \*No. 157. Industrial accident statistics. [1915.]
- \*No. 165. Lead poisoning in the manufacture of storage batteries. [1914.]
- \*No. 179. Industrial poisons used in the rubber industry. [1915.]
- No. 188. Report of British departmental committee on the danger in the use of lead in the painting of buildings. [1916.]
- \*No. 201. Report of committee on statistics and compensation-insurance cost of the International Association of Industrial Accident Boards and Commissions. [1916.]
- \*No. 207. Causes of death by occupation. [1917.]
- \*No. 209. Hygiene of the printing trades. [1917.]
- No. 219. Industrial poisons used or produced in the manufacture of explosives. [1917.]
- No. 221. Hours, fatigue, and health in British munition factories. [1917.]
- No. 230. Industrial efficiency and fatigue in British munition factories. [1917.]
- \*No. 231. Mortality from respiratory diseases in dusty trades (inorganic dusts). [1918.]
- No. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- \*No. 236. Effect of the air hammer on the hands of stonecutters. [1918.]
- No. 249. Industrial health and efficiency. Final report of British Health of Munition Workers Committee. [1919.]
- \*No. 251. Preventable death in the cotton-manufacturing industry. [1919.]
- No. 256. Accidents and accident prevention in machine building. [1919.]
- No. 267. Anthrax as an occupational disease. [1920.]
- No. 276. Standardization of industrial accident statistics. [1920.]
- No. 280. Industrial poisoning in making coal-tar dyes and dye intermediates. [1921.]
- No. 291. Carbon monoxide poisoning. [1921.]
- No. 293. The problem of dust phthisis in the granite-stone industry. [1922.]
- No. 298. Causes and prevention of accidents in the iron and steel industry, 1916 to 1919.
- No. 306. Occupational hazards and diagnostic signs: A guide to impairments to be looked for in hazardous occupations. [1922.]

**Industrial Accidents and Hygiene—Continued.**

- No. 339. Statistics of industrial accidents in the United States. [1923.]  
No. 392. Survey of hygienic conditions in the printing trades. [1925.]  
No. 405. Phosphorus necrosis in the manufacture of fireworks and the preparation of phosphorus. [1926.]  
No. 425. Record of industrial accidents in the United States to 1925. (In press.)  
No. 426. Deaths from lead poisoning. [1926.] (In press.)  
No. 427. Health survey in the printing trades, 1922 to 1925. (In press.)  
No. 428. Proceedings of the Industrial Accident Prevention Conference, held at Washington, D. C., July 14-16, 1926.

**Conciliation and Arbitration (including strikes and lockouts).**

- \*No. 124. Conciliation and arbitration in the building trades of Greater New York [1913.]  
\*No. 133. Report of the industrial council of the British Board of Trade in its inquiry into industrial agreements. [1913.]  
\*No. 139. Michigan copper district strike. [1914.]  
No. 144. Industrial court of the cloak, suit, and skirt industry of New York City. [1914.]  
No. 145. Conciliation, arbitration, and sanitation in the dress and waist industry of New York City. [1914.]  
\*No. 191. Collective bargaining in the anthracite coal industry. [1916.]  
\*No. 198. Collective agreements in the men's clothing industry. [1916.]  
No. 233. Operation of the industrial disputes investigation act of Canada. [1918.]  
No. 255. Joint industrial councils in Great Britain. [1919.]  
No. 283. History of the Shipbuilding Labor Adjustment Board, 1917 to 1919.  
No. 287. National War Labor Board: History of its formation, activities, etc. [1921.]  
No. 303. Use of Federal power in settlement of railway labor disputes. [1922.]  
No. 341. Trade agreement in the silk-ribbon industry of New York City. [1923.]  
No. 402. Collective bargaining by actors. [1926.]  
No. 419. Trade agreements, 1925.

**Labor Laws of the United States (including decisions of courts relating to labor).**

- No. 211. Labor laws and their administration in the Pacific States. [1917.]  
No. 229. Wage-payment legislation in the United States. [1917.]  
No. 285. Minimum-wage legislation in the United States. [1921.]  
No. 321. Labor laws that have been declared unconstitutional. [1922.]  
No. 322. Kansas Court of Industrial Relations. [1923.]  
No. 343. Laws providing for bureaus of labor statistics, etc. [1923.]  
No. 370. Labor laws of the United States, with decisions of courts relating thereto. [1925.]  
No. 403. Labor legislation of 1925.  
No. 408. Labor laws relating to payment of wages. [1926.]  
No. 417. Decisions of courts and opinions affecting labor, 1925.

**Foreign Labor Laws.**

- \*No. 142. Administration of labor laws and factory inspection in certain European countries. [1914.]

**Vocational and Workers' Education.**

- \*No. 159. Short-unit courses for wage earners, and a factory school experiment. [1915.]  
\*No. 162. Vocational education survey of Richmond, Va. [1915.]  
No. 199. Vocational education survey of Minneapolis, Minn. [1916.]  
No. 271. Adult working-class education in Great Britain and the United States. [1920.]

**Safety Codes.**

- No. 331. Code of lighting factories, mills, and other work places.  
No. 336. Safety code for the protection of industrial workers in foundries.  
No. 338. Safety code for the use, care, and protection of abrasive wheels.  
No. 350. Specifications of laboratory tests for approval of electric headlighting devices for motor vehicles.  
No. 351. Safety code for the construction, care, and use of ladders.  
No. 364. Safety code for mechanical power-transmission apparatus.

**Safety Codes—Continued.**

- No. 375. Safety code for laundry machinery and operation.
- No. 378. Safety code for woodworking plants.
- No. 382. Code of lighting school buildings.
- No. 410. Safety code for paper and pulp mills.

**Industrial Relations and Labor Conditions.**

- No. 237. Industrial unrest in Great Britain. [1917.]
- No. 340. Chinese migrations, with special reference to labor conditions. [1923.]
- No. 349. Industrial relations in the West Coast lumber industry. [1923.]
- No. 361. Labor relations in the Fairmont (W. Va.) bituminous-coal field. [1924.]
- No. 380. Postwar labor conditions in Germany.
- No. 383. Works council movement in Germany. [1925.]
- No. 384. Labor conditions in the shoe industry in Massachusetts, 1920 to 1924.
- No. 399. Labor relations in the lace and lace-curtain industries in the United States. [1925.]

**Welfare Work.**

- \*No. 123. Employers' welfare work. [1913.]
- No. 222. Welfare work in British munitions factories. [1917.]
- \*No. 250. Welfare work for employees in industrial establishments in the United States. [1919.]

**Cooperation.**

- No. 313. Consumers' cooperative societies in the United States in 1920.
- No. 314. Cooperative credit societies in America and in foreign countries. [1922.]

**Housing.**

- \*No. 158. Government aid to home owning and housing of working people in foreign countries. [1914.]
- No. 263. Housing by employers in the United States. [1920.]
- No. 295. Building operations in representative cities in 1920.
- No. 424. Building permits in the principal cities of the United States, 1925.

**Proceedings of Annual Conventions of the Association of Governmental Labor Officials of the United States and Canada.**

- No. 266. Seventh, Seattle, Wash., July 12-15, 1920.
- No. 307. Eighth, New Orleans, La., May 2-6, 1921.
- \*No. 323. Ninth, Harrisburg, Pa., May 22-26, 1922.
- No. 352. Tenth, Richmond, Va., May 1-4, 1923.
- No. 389. Eleventh, Chicago, Ill., May 19-23, 1924.
- No. 411. Twelfth, Salt Lake City, Utah, August 13-15, 1925.

**Miscellaneous Series.**

- \*No. 174. Subject index of the publications of the United States Bureau of Labor Statistics up to May 1, 1915.
- No. 208. Profit sharing in the United States. [1916.]
- No. 242. Food situation in central Europe, 1917.
- No. 254. International labor legislation and the society of nations. [1919.]
- No. 268. Historical survey of international action affecting labor. [1920.]
- No. 282. Mutual relief associations among Government employees in Washington, D. C. [1921.]
- No. 299. Personnel research agencies. A guide to organized research in employment management, industrial relations, training, and working conditions. [1921.]
- No. 319. The Bureau of Labor Statistics: Its history, activities, and organization.
- No. 326. Methods of procuring and computing statistical information of the Bureau of Labor Statistics.
- No. 342. International Seamen's Union of America: A study of its history and problems. [1923.]
- No. 346. Humanity in government. [1923.]
- No. 372. Convict labor in 1923.
- No. 386. The cost of American almshouses. [1925.]
- No. 398. Growth of legal-aid work in the United States. [1926.]
- No. 401. Family allowances in foreign countries. [1926.]
- No. 420. Handbook of American trade-unions. [1926.]

## **SPECIAL PUBLICATIONS ISSUED BY THE BUREAU OF LABOR STATISTICS**

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### **Description of occupations, prepared for the United States Employment Service, 1918-19.**

- \*Boots and shoes, harness and saddlery, and tanning.
- \*Cane-sugar refining and flour milling.
- Coal and water gas, paint and varnish, paper, printing trades, and rubber goods.
- \*Electrical manufacturing, distribution, and maintenance.
- Glass.
- Hotels and restaurants.
- \*Logging camps and sawmills.
- \*Medicinal manufacturing.
- \*Metal working, building and general railroad construction, transportation, and shipbuilding.
- \*Mines and mining.
- \*Office employees.
- \*Slaughtering and meat packing.
- \*Street railways.
- \*Textiles and clothing.
- \*Water transportation.