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

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WORKMEN'S INSURANCE AND COMPENSATION SERIES

PROCEEDINGS OF THE SEVENTH ANNUAL MEETING

OF THE

INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS

HELD AT SAN FRANCISCO, CALIF.
SEPTEMBER 20–24, 1920

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CONTENTS.

MONDAY, SEPTEMBER 20, 1920—MORNING SESSION.

Safety. Chairman, Will J. French, President, I. A. I. A. B. C.

MONDAY, SEPTEMBER 20, 1920—AFTERNOON SESSION.

Administrative Problems. Chairman, Charles S. Andrus, Chairman, Illinois Industrial Commission.

Round Table—Systems of Compensation for Permanent Partial Disabilities.

MONDAY, SEPTEMBER 20, 1920—EVENING SESSION.

TUESDAY, SEPTEMBER 21, 1920—MORNING SESSION.

Compensation Costs. Chairman, George A. Kingston, Commissioner, Ontario Workmen's Compensation Board.

TUESDAY, SEPTEMBER 21, 1920—AFTERNOON SESSION.

Administrative—Medical Problems. Systems of Medical Service. Chairman, G. D. Smith, Chairman Nevada Industrial Commission.

WEDNESDAY, SEPTEMBER 22, 1920—AFTERNOON SESSION.

THURSDAY, SEPTEMBER 23, 1920—MORNING SESSION.

THURSDAY, SEPTEMBER 23, 1920—AFTERNOON SESSION.

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MONDAY, SEPTEMBER 20—MORNING SESSION.

CHAIRMAN, WILL J. FRENCH, PRESIDENT, I. A. I. A. B. C.

SAFETY.

The CHAIRMAN. It is my privilege and pleasure to call this convention, the seventh annual meeting of the International Association of Industrial Accident Boards and Commissions, together, and I shall first ask Dr. J. S. Thomas, assistant secretary of the California Industrial Accident Commission, to invoke the divine blessing on these sessions.

[Invocation offered by Dr. J. S. Thomas.]

The CHAIRMAN. The evening session, as originally planned, was the session at which the delegates and visitors would be officially welcomed. Some months ago I wrote to Gov. Stephens and asked him to be with us on that occasion. He replied that he would be glad to if it were possible, and asked me to write him later. He has just returned from a visit East, and this morning kindly telephoned to me, saying that it was impossible for him to be with us this evening, because he had to leave the city and return to Sacramento, but offering to come down and greet us at this moment, and it is really exceedingly appropriate to have the chief executive of the State of California with us at our opening session. Before William D. Stephens became governor of the State of California he served in the National Congress, and he took there the same keen interest in all the legislation of the kind which we are to consider at these sessions as he has done since then as governor of the State of California. It is therefore my great pleasure to present to you Gov. William D. Stephens, who will bid you welcome to this great State of California in his official capacity.

ADDRESS OF WELCOME.

BY HON. WILLIAM D. STEPHENS, GOVERNOR OF CALIFORNIA.

I am only too glad to say a word of welcome to all who come to California. You have heard somewhere some one say a favorable word for California, and the governor is not backward about doing the same thing. We have much here that will delight you, and I am sure that all of California will benefit by your presence. In California we are greatly interested in accident insurance and welfare insurance, such as you gentlemen have charge of in various parts of the world. We appreciate the splendid work which has been done by our industrial accident commission, and we know something of the work that you gentlemen have done elsewhere, beyond our confines, and we appreciate that we are among the first of the States who recognized the problem, the seriousness of it, and the advisability of solving it as best we could along the lines our legislature has provided. We will from time to time add to that legislation, always in the direction of helping the man that is hurt, the public at large, and the particular employers. We have them all in mind, and all will have the best service and the utmost consideration that can be given. It is true, as Mr. French has said, that previous to my occupancy of the gubernatorial chair I had the pleasure of serving California for a number of years in the Halls of Congress, and it was there that I learned that the East—that Congress and virtually the whole East—knew but little of the problem that confronts California at this time. They believed, and it was natural that they should believe, because of the activity of politicians, that our problem was political and not real. I knew it was real, and so I sought a way of solving it, of informing Congress of the facts concerning our problem here. I refer to the oriental immigration problem.

Perhaps a word on that problem will not be amiss at this time, because you come from so many parts of the United States, nearly all of which are but slightly informed concerning this problem. In California we have now approximately 100,000 Japanese, not so great a number compared with the 3,400,000 people, and yet a great many because these people come to America to settle in four or five sections. They gather in colonies there, and they pursue farming to a very great extent. There isn't a treaty between America and Japan, and let me say we have no attack to make on Japan. We have no thought of that kind. We recognize the fact that Japan is a most remarkable nation, and her progress is one of the wonders of the world. No nation in the history of the world has made such rapid progress as the nation of Japan, and yet all history shows that oriental and occidental civilizations do not fuse. And so it is in California—oriental and occidental civilizations will not fuse. We

can not assimilate these people with our people in this State and in the United States, and this problem of ours is only ours now, to-day, in advance of to-morrow, when it will be your problem. It is a problem for the whole United States to solve—how we can lessen the number, how we can minimize the number, how we can shut out the coming of any more orientals to this western coast. There is a gentlemen's agreement between America and Japan which permits the coming of Japanese to America as merchants or as students, not as laborers, and Japan, under the agreement between Japan and the United States, has the right to say whether those men are one thing or the other. America can not say. Japan may honestly enough, so far as its officials are concerned, label a man a merchant or a student and he be not such. Ordinarily he is not, because within a short time after he enters America, labeled as a merchant or a student, he becomes a farmer, and goes to the farms; and that is the fault we have to find with the gentlemen's agreement. Then they come from across the border. They go to Peru, perhaps, and from there they go north to Mexico, and they are smuggled across the lower border of California and into our civilization here.

With all due respect to them and with no criticism of them, they are of a different religion and different habits from our own people. They labor constantly every hour of the day and into the night, and not only their men labor, but their women labor in the fields just as hard or harder even than the men. The matter of bearing of children is a very much talked-of subject. They do bear children rapidly, and within a very few weeks after a child is born the mother is again in the field, working at agricultural labor, with the child in a crib near-by. They work day in and day out and know no holidays or Sundays. They need little or no furniture in their dwellings. They do not sleep, as I understand it, upon beds. They sleep upon a board. They require nothing that America requires, that American farmers and American labor require, in order to make them comfortable. When they earn they buy mostly of Japanese merchants. They deposit almost altogether in Japanese banks, and the money eventually goes back to Japan. Indeed, I understand they take for their deposits something like a certificate of deposit payable in Japan, and under the law it would be impossible for an American court to touch that money payable in Japan. That is their own business. They pay their debts, so far as I know. We have no criticism of that. They are only pursuing their way of living, which is altogether different from our standard. We can not mix with them. Intermarriage is absolutely impossible. Therefore we are going to ask you folks to help us solve this problem, all of the United States, because it is a country-wide problem, to be solved by the Nation, for it is 95 per cent Federal. Five per cent belongs to the State and can be accomplished by the State, and that we are doing and will complete. But the larger part of it is Federal.

I had the information and facts gathered by the State board of control and I forwarded a copy of that report to Secretary of State Colby, who back in Washington is trying to find the solution of this problem. We look forward to this problem being solved, and I want to say to you I don't anticipate the least physical difficulty whatever. Our difficulty will all be argumentative, diplomatic, for Japan is too great a nation, is making too much progress, to go to war with

America about a thing that has already been solved by the British nation, because no oriental can come into Canada, or Australia, or New Zealand, and we are only asking the same thing here. I have just placed this before you in a limited way, but I wanted to bring it home to you, and want you to believe that we have a problem here and that we of California are as loyal and as true to the flag that floats over you and me as is any other part of the United States; that we believe Japan has the right to say for herself who shall come to her shores and who shall live there; and we most emphatically believe and assert that America has the right to say who shall come to her shores and who shall dwell among us.

Now, once more, I beg to express my appreciation of your coming to California; as citizen and governor of the Commonwealth I bid you welcome. I hope you will stay longer than you first intended and when you have gone make up your minds, as no doubt you will do, to come again; and make it very soon.

The CHAIRMAN. It is said on excellent authority that the first shall be last and the last first, but in this particular instance we have made the first first. We are going to consider the subject of industrial safety. To my way of thinking—I am sure my colleagues on the California Industrial Accident Commission think the same way, and I think you will all agree with us—the main problem, the proper thing to do, is to prevent the man from being injured or killed while at work, rather than to devise ways and means of compensating him after that unfortunate catastrophe occurs. The speaker for California will be our superintendent of safety. Therefore I shall not touch upon the California situation. I would like, though, just to take a moment to point out the excellent work that is being done in some of our eastern cities toward a larger safety movement, whereby not only injury but public safety may be included, so that the traffic ordinances will be properly enforced, and police judges supported, and the children at school taught from the beginning, as has been so successfully done in the city of St. Louis and is being followed in other centers. The problem is very much larger than purely industrial, and becomes of interest to every man and every woman and every child who has to go out into the world in any capacity. Mr. H. M. Wolflin is the California superintendent of safety. We have had the good fortune to have Mr. Wolflin aiding us in this State ever since January 1, 1914. He was assigned by the United States Bureau of Mines, under a cooperative agreement which came into force at that time, to look after our mine safety work. He did that splendidly, and when a vacancy occurred in the superintendency of safety Mr. Wolflin was selected for that position. It is therefore my pleasure to introduce to you H. M. Wolflin, superintendent of safety of California.

THE SAFETY MOVEMENT IN CALIFORNIA.

BY H. M. WOLFLIN, SUPERINTENDENT OF SAFETY, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

INCEPTION.

Under the employers' liability law which existed in California until about 10 years ago there was little if any organized safety work in the various industries of the State. Even the Roseberry liability and compensation law, which became effective in California in 1911, contained no provisions covering the safety of employees, and safety work was not seriously undertaken by the State until the enactment of the workmen's compensation, insurance, and safety act, which became effective January 1, 1914.

Under the old system, a callous employer, with little humanitarianism in his make-up, was not encouraged to prevent injuries to his employees. Frequently, instead of doing safety work, he spent his money paying a high-priced claim adjuster who would not be too sympathetically inclined toward the injured employees or their dependents, but when accidents came to mean dollars lost to the employers, with no chance to avoid payment, the safety movement could be justified to anyone and immediately began to grow.

PRELIMINARY ORGANIZATION.

From the first the Industrial Accident Commission of California realized that safety work could best be prosecuted through an effective organization that would build up cooperation between employers and employees, and since the beginning it has turned a generous share of its attention to the accident-prevention organization designated in the act as the department of safety.

Owing to the fact that organized safety work, not only in California but also throughout the United States, was in its infancy and few trained men were available in 1913, the industrial accident commission spent some time selecting a suitable man to take charge of its safety organization. Choice was finally made of Mr. John R. Brownell, who had had charge of the safety work of the Pennsylvania Steel Co., at Steelton, Pa. Mr. Brownell came to the Pacific coast in January, 1914, and shortly thereafter the department was organized with three safety engineers in the San Francisco office and one in the Los Angeles office. A safety museum was opened in San Francisco and placed in charge of a man who had the ability to install and explain mechanical safeguards. Later a similar museum was opened in Los Angeles.

The safety engineers first employed devoted their time to construction, general, electrical, and boiler inspections. It soon developed that in order to accomplish the end for which the department was organized, safety work must be organized in the lumber industry.

Owing to the great hazards in connection with the operation of elevators, there was an imperative need for elevator inspection. Accordingly an efficient engineer was assigned to cover the hazards incident to the lumber industry, and an elevator inspection division was organized.

MINE SAFETY WORK.

The mine safety work was organized separately from the other safety work of the department. A cooperative arrangement was made with the United States Bureau of Mines, by which the latter would designate one of its engineers for service in California. The salary and expenses of this engineer were borne equally by the Federal and the State Governments. In addition to being responsible for safety work at mines, this division has assigned to it the safety work in all tunnels, quarries, gravel and rock crushing plants, cement plants, brick plants, on gold dredges, suction and clamshell dredges, etc.

METHOD OF WORKING.

As safety work was undertaken in each industry or in each class of work, a careful survey of the special hazards of the industry was first made, after which a committee representing employers and employees was asked to meet representatives of the industrial accident commission's safety department to draft safety rules or orders to cover the industry in question. When these rules or orders were completed by the committee, they were published in tentative form, and after an appropriate interval a public hearing was held to discuss them. After the rules or orders had received a final revision, they were adopted by the commission and the date when effective was set. In this manner the following safety rules and orders were drafted and promulgated:

	Effective.
Mine safety rules	Jan. 1, 1916.
General safety orders	Do.
Woodworking safety orders	Aug. 1, 1916.
Engine safety orders	Do.
Elevator safety orders	Oct. 1, 1916.
Electrical utilization safety orders	Jan. 1, 1917.
Air-pressure tank safety orders	Do.
Window-cleaning safety orders	Do.
Trench construction safety orders	Do.
Logging and sawmill safety orders	Mar. 15, 1917.
Quarry safety rules	Jan. 1, 1918.
General construction safety orders	Jan. 15, 1918.
Electrical station safety orders	Dec. 1, 1918.
Safety rules for gold dredges	Jan. 1, 1919.
Tunnel safety rules	Dec. 1, 1919.
General lighting safety orders	Do.
Steam-shovel and locomotive-crane safety orders	June 1, 1920.

The following are in course of preparation:

Petroleum safety orders.
X-ray safety orders.
Shipbuilding safety orders.
Gas welding and cutting safety orders.

A number of safety bulletins have been printed in English, Italian, Spanish, Russian, Portuguese, Croatian, and Greek, so that foreign-speaking workmen may learn the safety doctrines.

From the beginning it was felt that only through the cooperation of employers and employees could the best results be accomplished, so every effort was made to secure this support. Encouragement has been given to the formation of workmen's safety committees, and the number of such committees has constantly increased throughout the State, with a consequent lessening of the accident hazard. Believing that cooperation would secure much more effective results than coercion, every effort has been made to avoid recourse to the law to secure observance of safety requirements, and in only a few instances during the past six years has the commission resorted to legal action.

In an effort to increase cooperative work, the safety department has, since January 1, 1917, published California Safety News, a 16-page pamphlet, containing illustrated safety articles of interest to employers and employees. This little pamphlet is sent free to all who send in their names, and the circulation has reached the 6,000 mark.

One of the interesting undertakings of the department of safety was the production of the motion picture "Preventable Accidents in the Lumber Industry." This picture was taken in four sections of the State and was made possible by the moral and financial support of the lumber industry through the California White and Sugar Pine Association and the California Redwood Association. This picture is constantly in demand from all parts of the country. The films, in eight reels, are shown with only a nominal charge, which is used for replacement purposes.

Lantern slides have been prepared of safe and unsafe conditions found by inspectors in the department. These slides are made from original photographs and cover many phases of the commission's safety work. They are used by the engineers and inspectors when giving safety lectures to various organizations.

Recently the work of safeguarding shipyard employees has been placed in the hands of a competent engineer, who has completed an extensive survey of the larger plants in the State. Safety orders covering shipbuilding hazards are in course of preparation, in addition to the "Petroleum safety orders," which have been delayed because of changes in personnel. Committees are being organized to prepare "Gas welding and cutting safety orders."

SOME RESULTS.

During the past six years safety conditions in the industries of California have steadily improved, although there is still room for much improvement, particularly in the way of safety organizations, safety committees at the various plants, etc. Working conditions are not ideal as yet by any means, but the attitude of both employer and employee toward safety work has gradually changed until an unsafe plant is quite generally regarded as an inefficient plant. The employer knows that accidents cost him money. The employee is learning that carelessness and a disregard of safety regulations will cause injuries which result in suffering and loss of pay for him.

Of course, there are many plants where the improvement has been slight, where safety discipline is poor, where safeguards are conspicuous by their absence or ineffectiveness, but such plants are the

exception rather than the rule. There would be fewer of them if we had more inspectors to use on the accident prevention work. Many cases can not be followed to completion on account of shortage of men and money, and some industrial fields have scarcely been touched. But the principles of safety work are now fairly well understood and the success of a safety campaign is largely dependent on the money and energy expended thereon, and so these conditions will be corrected when the means for correcting them are available.

ORGANIZATION.

Unfortunately, it has not been possible to secure uniform development of all branches of the safety department of the industrial accident commission. There is given below an outline of the present organization, which is largely a skeleton affair that is somewhat top-heavy and inadequate, but which we hope to build up to the point where it will be adequate for the needs of California:

San Francisco office:

Superintendent of safety.

Divisions of safety department:

1. Mechanical and miscellaneous, 1 engineer.
2. Electrical, 1 engineer and 1 inspector.
3. Construction, 1 engineer.
4. Shipbuilding, 1 engineer.
5. Mines, quarries, dredges, tunnels, 1 chief engineer and 2 mining engineers.
6. Boilers, 1 chief inspector and 5 inspectors.
7. Elevators, 1 chief inspector and 6 inspectors.
8. Necessary stenographic and clerical employees.
9. (Authorized and soon to be added.) Lumber industry, 1 engineer. (NOTE.—Position vacated by resignation more than a year ago.)
10. Not covered: Oil industry, chemical plants and manufacturing plants using chemical and electrochemical processes.
11. Safety museum with attendant in charge, where safety devices are exhibited and explained.
12. First-aid instruction work, 1 assistant engineer. This has been discontinued since the establishment of a mine rescue station at Berkeley, Calif., by the United States Bureau of Mines. Employees from this station now take care of first-aid work.

Los Angeles office:

Assistant superintendent of safety (formerly a construction engineer).

Divisions of safety department:

1. Mechanical and miscellaneous, 1 engineer.
2. Electrical, 1 inspector.
3. Boilers, 1 inspector.
4. Elevators, 1 inspector.
5. Necessary clerical and stenographic help.

There is no chemical engineer or man with chemical training to devote his time to safety work in plants where chemical processes are used that may result in injuries to employees. This is an immense field which has scarcely been touched by the safety department, although considerable cooperative work was done with the State board of health and the United States Bureau of Mines, in connection with the elimination of hookworm from the mines. Plants where porcelain ware is made, where chromium, phosphorus, benzine, lead, zinc, and quicksilver are handled, work where paints, oils, and varnishes are sprayed, where acids or poisonous fumes are generated—all are in need of attention. Occupations where various injurious dusts are generated should be studied. For the most part

the safety work of the past has been directed toward the elimination of mechanical hazards that would cause industrial accidents, and the hazards that would cause industrial diseases have been passed by, although they are quite as deadly in their way as the mechanical hazards. They do not work so quickly, and so have been neglected. It is the belief of the writer that the mechanical hazards will be practically eliminated long before the chemical and industrial disease hazards have received the attention which they merit. The California workmen's compensation, insurance, and safety act was amended in 1917 so that all industrial injuries were made compensable. This brought under compensation diseases that arise out of or are contracted in the course of employment.

THE VALUE OF SAFETY WORK.

Unfortunately, there are no accurate statistics on the industrial injury frequency prior to the time safety work was undertaken in California, and the statistics of more recent years are of little value for comparative purposes, because data are not collected in regard to the number of men employed in each industry or in all industries each year. Although the total number of injuries may vary from year to year, we do not know whether the accidents per 10,000 hours of work performed have varied to any great extent. We know that the injury frequency has dropped in the only industry on which accurate statistics are available. The table which follows gives approximate figures for the California mines:

FATAL, PERMANENT, AND TEMPORARY INJURIES IN METAL AND NONMETALLIC MINERAL MINES OF CALIFORNIA (EXCLUSIVE OF COAL MINES).

[Data furnished by statistical department of California Industrial Accident Commission.]

Year.	Fatal cases.		Permanent cases.		Temporary cases.		Number of men employed.
	Number.	Rate per 1,000 employees per year.	Number.	Rate per 1,000 employees per year.	Number.	Rate per 1,000 employees per year.	
1916	50	4.5	112	10.1	4,709	427.2	[1] 11,000
1917	47	4.4	82	7.8	4,474	425.7	[1] 10,500
1918	51	5.2	75	7.7	3,143	325.6	9,653
1919	20	2.2	57	6.3	[2] 1,758	195.4	8,996
Total	168	.....	326	.....	14,084	.....	40,149

[1] Estimated by chief mining engineer
[2] Cases where there was no disability were not included in 1919 tabulation.

The foregoing table indicates steady, if relatively small, reduction in injuries chargeable to the mining industry. The only exception to this reduction is found in the list of fatalities for 1918. In this connection it must be recalled that during 1918 due to war conditions many inexperienced men were working in the mines, and also that many isolated small mines were operated by men with limited experience who employed miscellaneous unskilled labor underground. Even so, the percentage of permanent and temporary nonfatal injuries decreased.

The unusual reduction in fatalities for 1919 is a record that possibly will not be maintained.

THE FUTURE SAFETY PROBLEM.

Summarizing, then, we feel that California has done some good safety work during the past six years, but that there is perhaps as much more to do. Where the early safety work could remove the glaring dangers and attempt to change the attitude of careless employees who were exposed to serious mechanical hazards, the safety work of the future will be to protect not only against these mechanical hazards, but also against the industrial diseases, which are much more subtle and less readily recognized. The pioneer work has been done and we feel some pride in the way in which it was accomplished, but the problems of the future are more difficult to solve and much more difficult for the layman to appreciate. It is much easier to convince a workman that he may lose his hand or his life in exposed machinery than it is to convince him that he may lose his life almost as quickly and quite as surely from lead poisoning or exposure to injurious substances like phosphorus, benzine used as a solvent, etc.

The time has come when more energy must be expended in winning the intelligent cooperation of employees. Such cooperation is needed if mechanical hazards are to be guarded against effectively, but it is absolutely essential for the removal of many industrial disease hazards that the employers are almost powerless to eliminate. The employers can do their part by removing dangerous fumes, gases, and dust from their plants, by providing good ventilation, by furnishing the best lighting facilities, by insisting upon cleanliness, and doing all the other things reasonably necessary to remove occupational hazards.

[Two reels of the motion picture "Preventable Accidents in the Lumber Industry" were here shown.]

The CHAIRMAN. We have eight reels of these. These reels have been shown all over the State of California, wherever men are engaged in the lumber industry. With the reels is taken a portable machine, so that men working perhaps miles away from the place will have an opportunity of observing safe practices.

Mr. GEORGE A. KINGSTON, commissioner, Ontario Workmen's Compensation Board, Canada. You go to another camp, that is, another than the one at which the pictures were taken, and set up those reels for the benefit of men in that camp?

The CHAIRMAN. Oh, yes; sent all over the State, wherever arrangements are made.

Mr. KINGSTON. An official of your commission accompanies the reels?

The CHAIRMAN. Not necessarily. I think generally a representative of one of the lumber companies, but the idea is to have them available wherever wanted in the industry.

Dr. E. B. Rosa was not able to come to California, and Prof. Albert W. Whitney kindly agreed to take his place on the program. The subject is the work of the National Safety Codes Committee. A number of years ago, in 1906, we had a fire in San Francisco. There is some popular impression that we also had an earthquake at the same time. Afterwards the fire insurance companies wanted to have some work done of a special character and it was a difficult matter for them to find the right man. They got Prof. Whitney to do that

work, and he did it well. Later on the industrial accident commission of the State had to have assistance in preparing its schedule for permanent disabilities, and again Prof. Whitney was called into service, with the same result. Later on he went East, and has been associated, as you know, with some of the workmen's compensation bureaus, but we in California feel he is really a Californian, and I want to introduce him to you as the next speaker, to discuss the National Safety Codes Committee work.

THE ORGANIZATION AND WORK OF THE NATIONAL SAFETY CODES COMMITTEE.

BY E. B. ROSA, PH. D., CHIEF PHYSICIST, UNITED STATES BUREAU OF STANDARDS.

[Read by Prof. Albert W. Whitney, general manager, National Workmen's Compensation Service Bureau.]

Great possibilities for effective standardization work may be found in the preparation of safety codes for application by State and municipal authorities, manufacturers, and insurance companies. Much has been said of the need for standardization and much has been done toward the standardization of safety practices by State authorities, insurance organizations, and individual manufacturers. If these codes are prepared by many different organizations acting independently, there will result many conflicting standards, except perhaps in cases where the practice is so restricted in scope that only a single interest is concerned.

Many of the States have promulgated standards of safety by which manufacturers could judge the status of their equipment and practice. The insurance companies soon learned the advantage of prescribing a standard condition of plant upon which they could base rates. This necessitated the adoption by cooperative action of a uniform rating schedule, which is in reality a special kind of safety code. Manufacturers have been embarrassed, however, by the conflict between standards of the insurance companies and those of the States.

Many large interests or groups of interests have established standards of their own and are following them. During the war the Bureau of Standards cooperated with the safety engineers of the Navy and War Departments in the preparation of a set of safety standards to be applied in Government establishments. There has recently been organized the Electrical Safety Conference, in which the electrical manufacturers are associated with insurance interests and the Bureau of Standards, and the purpose of which is the development and adoption of safety standards for the construction, test, application, and installation of electrical appliances and the orderly and consistent development of safety practices in electrical manufacture and installations. The boiler code of the A. S. M. E. is a good example of standardization by a group of interests.

The need for a central agency through which these attempts at standardization could be cleared soon became manifest, but the method of procedure to set up such an agency was a problem which had to be worked out. Various organizations, including the technical societies, the International Association of Industrial Accident Boards and Commissions, and the Bureau of Standards were suggested as the proper agencies jointly to coordinate the efforts of the many organizations engaged in standardization of safety practices. In order to crystallize opinion as to how this work of coordination should be carried out, the Bureau of Standards invited delegates from Federal, State, and municipal departments, engineering

and utility associations, organizations of insurance companies, and employers, employees, and manufacturers to attend a conference at Washington on January 15, 1919.

FIRST CONFERENCE ON INDUSTRIAL SAFETY CODES.

At this conference the organization, purposes, and plan of procedure of the American Engineering Standards Committee were explained and a proposal made to place the standardization of safety practices under the auspices and rules of procedure of this body. Briefly summarized, the rules of procedure of this organization are as follows:

(*a*) A standard (or code) is assigned by the American Engineering Standards Committee to a " sponsor body," which is any national organization capable of carrying out the work and which may or may not be a member of the Standards Committee.

(*b*) The sponsor body appoints a thoroughly representative " sectional committee," subject to approval by the American Engineering Standards Committee.

(*c*) The sectional committee prepares the standard (or code) and submits it to the sponsor body, which then submits the standard with its approval to the standards committee.

(*d*) It is then published by the sponsor body, and on approval by the standards committee is labeled "American standard."

This procedure was given approval by the conference, but attention was called to the fact that the American Engineering Standards Committee was representative of and responsible to the founder societies only, that is, to the five national engineering societies and the three Government departments (Commerce, War, and Navy), and that the sponsor bodies had no voice in the selection of the members of the standards committee or in the preparation or amendment of its constitution and rules of procedure.

This conference directed that the question of the plan of procedure by which the safety codes were to be formulated be submitted to letter ballot of all the bodies represented at the conference and to such others as should properly be included. This conference also directed that another conference be held to consider the vote and to take final action. The result of the mail vote was a substantial majority in favor of the plan to place the work of preparing safety codes under the rules of procedure of the American Engineering Standards Committee, the plans for the reorganization of which to admit to its membership organizations other than the original engineering societies and Government departments were then under consideration. These plans have been carried through and the membership of the American Engineering Standards Committee enlarged. It now includes the National Safety Council and insurance interests.

SECOND CONFERENCE ON SAFETY CODES.

With the submission of the report of the balloting the Bureau of Standards issued a call, in conformity with the wishes of the first conference, for a second conference to be held on December 8, 1919, to consider the procedure which should be followed in further work on safety codes and to discuss methods of securing the cooperation of engineering societies, Government departments, and other agencies

that are actively concerned with safety work. Representatives in attendance upon this conference discussed in some detail the reorganization of the American Engineering Standards Committee. The result of the mail ballot referred to previously was affirmed. The conference then proceeded to a discussion of the best method of organizing the work in order that it could be given detailed and continuing attention. It was the consensus of opinion that a special committee on safety codes, acting as a subcommittee of the American Engineering Standards Committee, should be appointed. This attitude of the conference was expressed in the following resolution:

Resolved, (1) That the American Engineering Standards Committee be asked to request the International Association of Industrial Accident Boards and Commissions, the Bureau of Standards, and the National Safety Council to organize a joint committee on safety codes, this committee to include representatives of these bodies and such others as they may consider advisable; (2) that this joint committee report on safety codes required, priority of consideration of the codes, and sponsor bodies for their preparation; (3) that this report be put in writing and placed in the hands of the American Engineering Standards Committee not later than February 1, 1920.

In compliance with this resolution, the American Engineering Standards Committee requested these organizations to appoint a joint committee on safety codes.

Representatives of these three organizations met in Washington to consider the organization of this committee. After very full discussion it was decided that in order to organize a committee which would not be unwieldy membership on the committee should be by groups of organizations rather than to have each organization represented. The present personnel of the National Safety Codes Committee is as follows:

David S. Beyer.	M. G. Lloyd.	C. B. Scott.
L. W. Chaney.	Miss Frances Perkins.	A. W. Whitney.
C. B. Connelley.	Dana Pierce.	S. J. Williams.
L. A. De Blois.	C. W. Rice.	H. M. Wolfiin.
George P. Hambrecht.	John Roach.	
Thomas P. Kearns.	E. B. Rosa.	

Royal Meeker, C. C. Rausch, and W. C. L. Eglin were members originally, but resigned.

At the first meeting of the committee, held on January 9 at the Bureau of Standards, 37 codes were discussed, some of which were codes which had already been completed or on which work was already in progress. Sponsorships for these codes were further considered at a meeting in New York on February 17, the committee having made a careful investigation as to the qualifications and the scope of the work covered by the sponsors which had previously been suggested. The first report of the committee, which contained definite recommendations for sponsorships for 35 codes, was submitted to the American Engineering Standards Committee on March 6, 1920, and was considered by the committee at a subsequent meeting on April 3.

Following the meeting of the American Engineering Standards Committee on April 3, the National Safety Codes Committee continued its consideration of safety standards for other industrial fields. It has been the purpose of the committee to suggest as sponsors only those organizations which are able to give the work immediate and

continuing attention and which will have the cooperation of all concerned. This necessitated a great deal of traveling and correspondence by representatives of the committee. At a third meeting of the committee, on May 22, recommendations for sponsors for five additional codes were made. A third report was prepared and presented to the American Engineering Standards Committee on June 5.

The subjects of the codes for which arrangements have been completed, together with the organizations which have been designated by the committee to act as sponsors and who have accepted such responsibility, are as follows:

Abrasive wheels: The Grinding Wheel Manufacturers of the United States and Canada, and the International Association of Industrial Accident Boards and Commissions.
National electrical (fire) code: National Fire Protection Association.
National electrical safety code: Bureau of Standards.
Power presses: National Safety Council.
Manufacture, transportation, and use of explosives: The Institute of Makers of Explosives.
Foundries: American Foundrymen's Association and the National Founders' Association.
Gas safety code: Bureau of Standards and the American Gas Association.
Head and eye protection: Bureau of Standards.
Paper and pulp mills: National Safety Council.
Mechanical refrigeration: American Society of Refrigerating Engineers.
Stairways, fire escapes, and other exits: National Fire Protection Association.
Woodworking machinery: The International Association of Industrial Accident Boards and Commissions and the National Workmen's Compensation Service Bureau.
Industrial lighting: Illuminating Engineering Society.
Industrial sanitation: U. S. Public Health Service.
Lightning protection: Bureau of Standards and the American Institute of Electrical Engineers.

The following is the list of additional codes which have been submitted to the American Engineering Standards Committee with a recommendation for sponsorship or which are under active consideration by the National Safety Codes Committee:

Locomotive boilers.
Boiler-room equipment and operation.
Conveyors and conveying machinery.
Cranes, derricks, and hoists.
Electricity in mines.
Elevators and escalators.
Internal-combustion engines.
Engine-room equipment and operation.
Steam engines and turbines.
Ladders.
Aeronautics.
Heating and ventilation.
Stationary steam boilers.
Construction work.
Combination of electrical fire and safety code.
Mechanical transmission of power.
Industrial power control.
Nonfired-pressure vessels.
Tanneries.
Blast furnaces and steel works.
Rolling mills.
Floor openings, railings, and toe boards.
Logging operations and sawmill machinery.
Machine tools.
Textiles.

Before beginning work on a new code or the revision of an old one the sponsor body must appoint a sectional committee, whose membership comprises not only representatives of the sponsor body but also representatives of all other interests concerned. The organization of this committee is very important, as it is the instrument upon which the sponsor body largely depends to coordinate the efforts of all other organizations which have done any work or are interested in the work to be done by the sectional committee. It is also important that the sponsor keep closely in touch with the central office of the American Engineering Standards Committee, in order that it may be advised of the standardization work of all organizations which has a bearing on the subject under consideration.

A number of the sponsors have already appointed their sectional committees and work on the codes has begun. Other sponsor bodies have gathered material and prepared a tentative draft of a code for presentation to and action by the sectional committee as soon as its appointment is announced. Information as to the progress of the work on the various codes can be obtained from the secretary of the American Engineering Standards Committee, 29 West Thirty-ninth Street, New York City.

The National Safety Codes Committee desires to express its appreciation of the various courtesies extended its representatives in conferences and correspondence they have had with the officials of the various State boards and commissions. The present work will no doubt result in greater uniformity in State and insurance regulations, and the committee hopes each State will take an active interest and criticize the work of each of the sponsors charged with the responsibility of developing codes, and will use the finished code as a basis for State regulations, deferring issuance of the State code, if necessary, until the "American standard" has made its appearance. The successful introduction into practice of these various codes depends more upon the constructive criticism during their development and upon their prompt enactment as State regulations by the various State boards and commissions than upon action by any other group of organizations.

DISCUSSION.

Prof. WHITNEY. That is the way that the things have been organized. Now, as to this American Engineering Standards Committee, everything at present looks exceedingly hopeful. We have had a very difficult time in getting started, but things seem to be advancing very satisfactorily now. We have a secretary, Mr. Agnew, who was with the Bureau of Standards, and the work is being pushed. Dr. Agnew went to Europe lately and studied international standards, and it is hoped that this work may be developed along international lines. It is tremendously important from a commercial point of view. In relation to manufacturers, when they ship their goods to South America they are much more sure what goods will be acceptable there if there are international standards. I think that covers the subject pretty well, except there is this to be said: The American Engineering Standards Committee at present is just a body that passes on things. Well, it is like a judge; it sees if the work is done

in a proper way, and then pronounces the verdict. But there is a lot more work that needs to be done. This codes committee is a body which supplies the material, so far as safety goes, to the American Engineering Standards Committee. Then there is a lot of work in seeing that these codes and standards are actually applied, and that is the place where this association can help a good deal. Of course it does no good to have an American standard and then not to use it. Somebody has to do some active work in seeing that it actually goes into effect, and I think it is up to the industrial accident commissions of the country to get behind this movement and see that the standards that are created in this way really and truly become American standards and are used just as universally as possible.

The CHAIRMAN. I would suggest, Prof. Whitney, that you prepare a resolution and submit it to Mr. Verrill, our secretary, so that we can consider that affiliation or that assistance you have outlined.

Prof. WHITNEY. That will be done, I suppose, at a later meeting?

The CHAIRMAN. Yes.

Mr. JOHN P. GARDINER, commissioner, Minnesota Department of Labor and Industries. I would like to ask Prof. Whitney a question. Talking along the line of those American standards, is it the intention of the Bureau of Standards or this American Engineering Standards Committee to assist the different States in getting them through their legislatures? In other words, what would it benefit the States if these various matters are adopted by a bureau of standards, if we can not force those standards on the employer who does not see fit to adopt them because they are not required by the law? I do not think Minnesota is the only State where such is the rule and not the exception. Some people adopt the standard because they believe it is right, and because they believe it is safety work. We get good results in those plants. But when the employer guards his machinery because he feels he has to do it, then we do not get very good results. For instance, we lost a case in a city of the second class in Minnesota the other day. The judge asked the question: "Are there any standards in the law that require the employer to guard the machine a certain way or with a certain class of material?" Our only standard in Minnesota is a height of 6 feet above the working floor, but a beveled gear has to be 6 feet 7 inches above the working floor. We lost out in court, because the law said 6 feet.

The CHAIRMAN. The Chair will have to rule that we have a set program, and the time is short, and there will not be time just at this time to ask any more questions. I will ask Prof. Whitney to reply to Mr. Gardiner.

Prof. WHITNEY. Mr. Gardiner's question is just exactly in line with what I said last. I think you can readily see that a committee of this kind, the American Engineering Standards Committee, is not in a position to do any active propaganda work. It is a scientific body. Somebody has got to get back of this thing and do the actual work of putting it into effect. The committee itself is not prepared to do that. It will have to be the various interested bodies, the commissions, the insurance interests, the employers, labor, and all, to get back of this thing and take some steps to put it into actual operation. But the problem of the American Engineering Stand-

ards Committee is to produce a standard of which it can be said that it is a standard which has had the very best attention given to it and which the very best representative people are back of, and that when you say an American standard it means something.

The CHAIRMAN. The great States of New York and Pennsylvania contribute, unfortunately, more to the death and accident lists than any other two States in the country. This morning we have the honor to have with us Commissioner C. B. Connelley, commissioner of the Department of Labor and Industry of the State of Pennsylvania, who will tell us something about the safety work in that State.

WHAT PENNSYLVANIA IS DOING FOR SAFETY AND SAFETY CODES.

BY CLIFFORD B. CONNELLEY, PH. D., COMMISSIONER, PENNSYLVANIA DEPARTMENT OF LABOR AND INDUSTRY.

PART I.—PENNSYLVANIA AND SAFETY PROGRESS.

(*a*) *In relation to the national safety movement.*—Safety work in Pennsylvania as a function of the State government has kept pace with the van of the great national movement for industrial safety. Closely following the launching of the safety-first idea as a nation-wide issue the department of labor and industry was created in Pennsylvania to promote the welfare of labor and the prosperity of its industries. The plan of organization, its personnel of wide-awake engineers and industrial experts, and the general favor with which the department was received tended, from the very beginning, to put forward safety as its dominant service toward industry. Other State agencies which contribute in a definite way to the safety program of Pennsylvania are the department of mines and the public service commission. As the accident reports of these agencies filter through the department of labor and industry, it is our purpose to confine this discussion to the work of the department of labor and industry.

(*b*) *In relation to the evolution of industry.*—The progress of safety in the State has not only paralleled the best efforts of the national safety movement but has been in keeping with the spirit of the times as affecting the evolution of industry. In the short period of less than seven years the industries of Pennsylvania and the workers have been made to respond to demands for production and efficiency such as were never known in the industrial history of the Commonwealth. That all demands were met, especially during the war period, is a matter of record, and one need not wonder, therefore, that there is some industrial unrest in the industries of the Keystone State, as there is in every other part of the world.

FOUR STAGES OF SAFETY PROGRESS.

Four stages, or periods of progress, mark the onward march of safety in Pennsylvania. They are what may be termed:

1. *The pioneer safety period*, covering the years 1913 to 1915, inclusive, during which the department of labor and industry was created, and a determined educational campaign was carried on in the interest of accident prevention.

2. *The compensation period*, covering the latter part of the year 1915, and particularly the year 1916, in which the conscience of industry was awakened by legislative enactment to the newer meaning of accident prevention, and notable for the increase in accident reports.

3. *The war period*, covering the greater part of the years 1917 and 1918, in which safety was stressed as an all-important war measure.

4. *The readjustment or reconstruction period*, from 1919 to the present time, in which safety has been stressed as an aid to production and as a remedy for industrial unrest.

A STATISTICAL STUDY OF SAFETY PROGRESS.

The accident statistics for these periods show this safety progress in a very concrete manner. The total number of accidents reported are:

The pioneer safety period.

1913	12,752
1914	38,126
1915	61,540
Total	112,418

The compensation period.

1916	255,616

(or over twice the total of the previous three years.)

The war period.

1917	227,880
1918	184,844
Total	412,724

The readjustment or reconstruction period.

1919	152,544

The annual increases in the first period indicate clearly that the initial steps in safety in educating both the industries and the workers to report accidents made notable progress. The numerical crest of accidents, as could be expected, was reached in 1916, the first year of the functioning of the workmen's compensation acts. In 1917 there was a decrease of 27,736 accidents and in 1918 a decrease of 43,036 accidents from the 1917 report, and it is likely the decrease would have been greater had not the war with its speeding-up processes added new hazards to industry. The 1919 report shows a further decrease of 32,300 as compared with 1918 and a decrease of 103,072 as compared with the high figure of 1916, and it is certain had not the reconstruction period been so disturbed by industrial disputes, profiteering, and general unrest the decrease would have been considerably greater.

The story thus told by the figures is a cause for encouragement. The dreaded and paralyzing disease which was, slowly but surely, destroying our industrial efficiency and putting us out of the race for the competitive business of the world showed unmistakable symptoms of its presence by the treatments of the first period of the safety diagnosis. The crisis was reached in 1916, and from then on, notwithstanding the disturbing influences and complexities, there has been a decided turn for the better. We expect the 1920 figures to show less accidents than 1919, and each succeeding year to work toward the gradual elimination of industrial accidents.

PRESENT OBJECTIVES IN SAFETY WORK.

To understand the present objectives in our safety work, it is necessary to trace the safety methods which have characterized the four periods. It is noteworthy that in spite of the changed con-

ditions, almost incredible changes in so short a period of time, not a single plan or method has been put upon the scrap heap. In other words, what Pennsylvania is doing for safety to-day is but a quickening of the accumulated efforts of the past. It is our firm conviction that success in accident prevention can not be attained by spasmodic campaigning, however far-reaching and high-sounding the programs, but by a determined, continuous effort year after year. In this connection the following is quoted from the Travelers Standard, Hartford, Conn., by way of emphasis of present-day safety objectives:

In many respects safety work is similar to advertising—particularly so in the matter of repetition. One advertisement of a sensational bargain may suffice to dispose of a limited stock, but for average business conduct it is essential to keep the name of the manufacturer of the product continually before the public. In like manner it is necessary continually to plan, instruct, and provide for the workman's safety. Another respect in which advertising and safety work are much alike is in the cumulative effect. Some experts estimate that $5,000 properly expended in advertising during a year will return $4,000 the second year, $3,000 the third year, $2,000 the fourth year, and $1,000 the fifth year. We do not insist upon these precise figures. It is evident, however, that the value of an advertisement endures for a considerable time.

Unfortunately, we can not make a similarly detailed comparison with respect to safety work. It has been amply demonstrated, however, that what we may call the "delayed returns" on well-sustained, organized safety work are materially in excess of those that follow advertising. A safety campaign conducted in a plant for one year and then discontinued will show definite results for several years in the way of fewer accidents as compared with the accident rate prior to the campaign. The delayed returns and influence will depend largely on the nature of the campaign and the character of the employees, and upon the extent of the labor turnover. The illiterate, the care-free, and the radical workman will not respond as freely as the steady-going, conservative workman. A slipshod campaign will have little influence on a workman of any type, while a large turnover will materially reduce the effectiveness of any campaign, however well conceived and faithfully executed. These are just the intangible factors that can not be accurately gauged and are the basic reasons for continuing the safety work. If the results of the first year's efforts justified the expense, there is every reason to continue the work, because the influence that extends from each year's work over into the succeeding years is pure profit; and the cumulative effect will continue until such time as avoidable accidents are practically eliminated.

There will always be a need for safety work in our industries, because man is prone to forget that which is good for him, and there is a certain element of chance taking in all of us. New men coming from other mines or plants may not have had the advantages in safety education that your own employees have received, and these men must be taught. Finally, each year sees thousands of boys, just from school, entering our industries with little or no conception of the hazards and responsibilities that are involved, and with no training in safety.

A RETROSPECT OF SAFETY ACTIVITIES.

To bring to focus the efforts of the past in a summarized form and to show the full scope of Pennsylvania's activities for safety we shall follow as closely as possible the four periods as outlined, pointing out in each period (*a*) the important safety legislation, (*b*) the safety standards created, and (*c*) the safety publicity or campaigns conducted.

The Pioneer Safety Period.

(A) SAFETY LEGISLATION.

Prior to 1913 there was some legislation, of course, relating to the safety of employees, but this, for the most part, was concentrated

in the department of labor and industry, created June 2, 1913, and is therefore the fundamental step in the safety program of the Commonwealth. The department as originally constituted provided for an industrial board, a bureau of inspection, and, as a part of the latter, the division of hygiene and engineering, a bureau of statistics and information, and a bureau of mediation. By later amendments the bureau of statistics and information was removed from the department and a workmen's compensation board, a bureau of workmen's compensation, a bureau of employment, and a bureau of rehabilitation were added. The department as organized at present is a complete safety organization, not only as it affects the popular conception of industrial accidents but also in accordance with the more advanced definition of an industrial accident as "anything occurring within an industry which impairs the earning power of a worker."

It is not our purpose, however, to include unemployment and the losses due to industrial disputes within the scope of this discussion, but merely to mention in passing that both are industrial hazards of the most serious nature.

Other labor laws passed during the period, which were largely safety measures to be enforced by the department, apply to (1) employment of certain minors in quarries; (2) making and sale of mattresses, known as the mattress act; (3) protection of employees exposed to occupational diseases; (4) protection of employees in certain occupations by use of blowers; (5) regulating the employment of females in certain establishments; and (6) reports of employers as to accidents to employees.

(B) SAFETY STANDARDS.

The inspection bureau of the department in its efforts to enforce the laws discovered that not much could be gained by a corps of inspectors visiting the various industries of the Commonwealth with the idea of talking safety and recommending safeguards for dangerous machinery and conditions without fixed rules and regulations which would serve to call attention to safe practices and to make uniform the requirements. This gave the industrial board the opportunity to develop one of its important functions—the creating of safety standards. In this particular work, as well as in all of the safety work of the department, the trained intelligence and the expert service of the division of hygiene and engineering aided considerably.

When the industrial board took up safety-standard making, it was an almost unknown governmental function. Real pioneer work had to be done. It meant, for example, a considerable effort to survey the industry; the employee had to be shown that mechanical safeguarding of machinery and prescribed rules governing the job did not interfere with his earning capacity. It was not always easy to convince the employer that safety was an investment rather than an expense. The safety engineer was unknown. There were practically no safety appliances on the market. The national safety movement was in its infancy and few people were "sold the idea." The State was not organized to carry out a program of safety. In

short, there was very little precedent to follow, but there was considerable tradition of industrial distrust, ignorance, and disinterest to hinder. The board entered on the task, however, following the plan as outlined in detail in Part II, and succeeded in having 15 codes adopted during this period.

(C) SAFETY PUBLICITY.

1. *Conference.*—Two conferences were held in the interest of safety, known as industrial welfare and efficiency conferences, which brought to Harrisburg men of the industries who were interested, as well as the department officials, for the interchange of opinion and experiences.

2. *Permanent safety exhibits.*—This is a collection of pictures and posters, secured from industrial firms, and is sent out to fairs and public gatherings throughout the State for the purpose of disseminating information as to safety devices and the prevention of accidents and industrial diseases.

3. *Publications.*—The publishing of a monthly bulletin was begun in 1914, which, in addition to departmental news, featured typical accidents as found by the inspectors and recommended methods of prevention. Articles were also printed offering suggestions for forming fire-drill organizations in factories and for safety organization in industrial establishments. First aid was urged as a part of the safety movement.

The Compensation Period.

(A) SAFETY LEGISLATION.

The outstanding legislation of this period were the acts, four of which were passed in 1915, which established the compensation system of Pennsylvania. The primary purpose of the workmen's compensation law and the correlative act creating a State insurance fund, also passed in 1915, was to prevent industrial accidents. Pertinent to the subject of safety were (1) establishment of a bureau of employment, (2) child labor act, (3) an amendment to the woman's law regarding female employment, and (4) regulating the business of assisting employers to obtain employees and persons to secure employment.

(B) SAFETY STANDARDS AND SAFETY APPLIANCES.

But four safety standards were adopted during this period, but they were of a nature necessitating considerable effort and much technical advice. These codes were lighting, elevators, explosives, and the electric code.

During this time, too, a new development of the safety idea came about in the appointment by the industrial board of a committee on approvals, whose duty it was to examine and test devices and appliances and to recommend safety features applicable to the industries of the Commonwealth. Twenty-two certificates of approval were issued during 1916.

(C) SAFETY PUBLICITY.

1. *Conferences.*—The immediate result of the operation of the compensation laws was the enormous toll of accidents which were reported. For the first three months of 1916 the reports showed—

	Killed.	Injured.	Total.
January	188	13,336	13,524
February	229	24,253	24,482
March	206	26,732	26,938
Total	623	64,321	64,944

This led to the calling of an industrial accident prevention conference, which was probably the first assembly of its kind in the United States. It consisted of about 150 leaders in industries (not representatives of leaders, or safety men, or technicians), labor leaders, and Government officials. The purpose was to bring the facts to the direct attention of the employer and owner and secure their cooperation.

Another type of conference which was inaugurated during this period was that of industrial physicians and surgeons, 10 of which conferences have been held to the present time. These have furnished first-hand information on vocational diseases, rehabilitation, etc., and have brought hundreds of medical men in direct touch with the problem of industrial safety.

The emphasis put upon the medical phase of accident prevention led to the establishment of two industrial clinics, one in the eastern part of the State, at the University of Pennsylvania, where an entire hospital was devoted to sufferers from diseases presumed to be contracted in their employment and due to conditions under which they work, and the other in the western part of the State in cooperation with the United States Bureau of the Public Health Service. The purpose is ultimately to make a study of occupational diseases.

2. *Publications.*—In addition to the monthly bulletin of the department the following new publications were distributed for the use of the industries: Accident-prevention posters, for placing on bulletin boards and other conspicuous places around industrial plants; Timely Hints, a series of small pamphlets written in popular language for the guidance of workers in safeguarding themselves.

3. *Additional safety methods.*—(*a*) Use of motion pictures as a means of safety publicity; (*b*) organization of the Commonwealth for safety as a model safety organization for industrial establishments; (*c*) establishment of a "flying squadron" in the bureau of inspection, made up of selected inspectors who should devote their entire time to investigating and reporting on serious industrial accidents.

War Period.

(A) SAFETY LEGISLATION.

The legislature of 1917 passed several acts in the interest of safety, the most notable of which was the one creating a health-insurance commission to investigate sickness and accidents of employees not compensated under the workmen's compensation law. Other laws applying to specific industries were: (1) An amendment to a previ-

ous act providing for the safety of persons from fire or panic in certain buildings; (2) a law pertaining to the construction, operation, and inspection of moving-picture booths or inclosures; and (3) an act regulating the employment of persons in compressed-air work.

(B) SAFETY STANDARDS AND SAFETY APPLIANCES.

Eleven safety standards were created during this period, of which the codes on nitro and amido compounds and shop clothing for women are distinctly war-time codes in the sense that they were created as a result of demands of the war. Eighty-five safety appliances were approved during 1917 and 1918.

(C) SAFETY PUBLICITY.

Throughout this period the appeal was made for safety as a war measure. The following is an interesting list of causes given for accidents during this period:

Carelessness; speeding up; the new-man hazard; unguarded danger points; failure to keep in constant service safeguards provided; lack of Americanization.

1. *Conferences.*—In the fall of 1917 the fifth annual industrial welfare and efficiency conference was held, and women in industry, reconstruction, rehabilitation of the war injured, and Americanization were among the leading topics discussed.

2. *Publications.*—A bulletin of the department of labor and industry was issued in 1918, setting forth "Pennsylvania's part in the national plan for rehabilitating and placing in industry soldiers and sailors disabled in war service." This resulted from the realization early in the war that proper places in industry should be found for Pennsylvanians disabled in war service. Accordingly, all the employers in the State were circularized and tentative employment opportunities for approximately 50,000 workers were secured.

3. *Ruling of industrial board on Americanization.*—Pointing toward Americanization, the following ruling was promulgated July, 1917: "No person shall be permitted to labor in any group employment in a position of command or obedience who is unable to speak or understand the language of his or her colaborers, whereby through misunderstanding accident and injury are apt to result to fellow workers."

Reconstruction Period.

(A) SAFETY LEGISLATION.

The important piece of legislation affecting industrial safety during the present period is the establishment of the bureau of rehabilitation in the department of labor and industry by the 1919 legislature. As an act of social and humane legislation it ranks next to workmen's compensation, and is related to the latter in the sense that while the main purpose of workmen's compensation is to prevent accident, rehabilitation gives the man another chance after he has been maimed by accident. To August 1, 1920, the new bureau has offered its

services to 798 industrial-accident victims. Other laws passed apply to (1) bakeries and bakery products, (2) boilers used in operation of oil wells, (3) sanitary requirements in mills, and (4) precautions against panic and fire in certain buildings. Of special significance as a far-sighted safety measure was the passing of the law requiring the teaching of safety first in public schools.

(B) SAFETY STANDARDS AND SAFETY APPLIANCES.

The necessity of bringing the safety standards up to date because of changes caused by war conditions and new industrial experiences is the reason for the general revision of all safety standards which is now under way. Several new codes, such as for head and eye protection, sanitation, and laundries, are being formulated also at this time. Over 50 approvals for safety appliances have been granted during this period. Illustrated bulletins are being compiled, setting forth these devices as safe for the industries of the Commonwealth. A museum of safety appliances has also been established, and houses the devices for which certificates of approval were granted.

(C) SAFETY PUBLICITY.

1. *Conferences.*—No conference of a general nature has been called since 1917, due to unsettled conditions. In the spring of 1920 a five-day convention was held, known as the Pennsylvania Safety Congress. This was the greatest gathering of its kind, and in a way epitomized the safety efforts of the past six years. The purpose of the congress was set forth as follows:

> The demands of the Great War upon industry and the consequent lowering of standard of industrial safety, the period of readjustment and consequent industrial unrest, make it important that Pennsylvania rally to meet the challenge of the hour. This congress is the forerunner of a particular program for industrial safety that will touch every industry in the Commonwealth.

2. *Community safety week.*—In keeping with the avowed intent of reaching the industries of the Commonwealth, two community-wide safety-week campaigns have been held, in which the department furnished considerable help. Similar campaigns are now being arranged to cover the entire State.

3. *Newspaper publicity.*—A continuous accident campaign is being conducted, in which the newspapers of the Commonwealth cooperate by publishing the monthly accident reports with comments.

SUMMARY OF SAFETY ACTIVITIES.

By way of summary, the safety program of Pennsylvania is based upon—

1. The enforcement of at least 25 specific acts of the legislature, notable among them being the act creating the department of labor and industry and the workmen's compensation and rehabilitation act.

2. The placing of responsibility upon employers as well as employees of the Commonwealth for complying with the requirements of 30 safety standards, and others that are being developed from time to time.

3. Serving the employers, the State officials, and manufacturers of safety devices with a means of knowing and approving appliances which are safe for the industries of the Commonwealth. The approved devices, numbering 160, are classified as (*a*) boiler appliances; (*b*) elevator appliances; (*c*) mechanical appliances, machine and woodworking guards; (*d*) electrical appliances; (*e*) motion-picture appliances; (*f*) fire prevention and protection appliances; and (*g*) miscellaneous safeguards and appliances, as antislip treads, no-slip ladder shoes, ladder, etc. These are open for public inspection in the department museum.

4. Educational campaigns, such as the safety congress and community-wide safety programs, motion-picture entertainments, industrial clinics, and the publication of bulletins, posters, and pamphlets, so that in every industry in the Commonwealth all who run may read.

5. Cooperation with the department of public education in the instruction on safety first in our public schools.

What Pennsylvania is doing for safety codes, in addition to the facts already stated, may be seen by tracing out more in detail the making of a Pennsylvania safety standard as shown in Part II.

PART II.—THE MAKING OF A SAFETY STANDARD.

A COOPERATIVE EFFORT.

The making of a safety standard, or a code of rules governing industrial safety, is more than a one-man job. It represents the cooperative interest and experience of (1) the worker or wage earner, (2) the employer, (3) the engineer or technical expert, (4) the manufacturer, (5) the State, (6) the insurance carrier, and (7) the public. It affects the life and health of the worker, the pocketbook of the employer, the ingenuity of the engineer, the skill of the manufacturer, the law-enforcement power of the State, the field of business for the insurance carrier, and the welfare of the community. In the last analysis, every interest that can contribute toward the protection of the life, health, safety, and morals of the worker in industry is concerned in the making of a safety standard.

A PROGRESSIVE DEVELOPMENT.

There are two possible viewpoints in drafting a code of safety rules. There is that which holds that a safety standard is the ultimate goal to be reached—that it is the "bar of platinum," preserved and guarded under ideal conditions, to which everything must be made to conform. The other view is that a standard is a progressive growth, measured by the best experience and practice of our constantly developing industries. The better training of the worker, the achievements of the inventor, the keener sense of responsibility of the employer and of the State, the closer and fuller organization of the employer and of employees and better understanding between them, and the larger interest of the public are the forward steps in the march of industry. These must be written into the code of rules, according to this view, from time to time. This is, of course, the viewpoint of the State of Pennsylvania in the safety standards issued by the industrial board. The inspector, under this view, has

not the right of private interpretation, but must confine his instructions to the standard as written.

METHOD OF PROCEDURE IN WRITING SAFETY STANDARDS, AS ILLUSTRATED BY THE ELEVATOR STANDARD NOW IN PROCESS OF REVISION.

To illustrate what is meant by making a safety standard, it may be to the point to take a specific standard and trace its development. The safety standard applying to elevators, which is now uppermost in the minds of some people, may serve our purpose. The duty of initiating the formulation of a standard rests with the safety standards committee of the industrial board. In the case of the elevator standard the task was to revise the original draft, which had been in effect for the past three years. The method of procedure in revision is not unlike writing the original draft, except as the experience makes possible a more finished document, consistent with up-to-date industrial conditions. The first step was to secure a committee, representative of all interests in the making of an elevator, the installation of it, the owner, the user, and the operator. The plan was to have as small a committee as practicable in order to facilitate the work. This committee was to discuss the standard in effect with the view of suggesting changes where necessary. The interest was so keen that the attendance was too large to attempt the work at the first meeting. (A significant fact in this connection is that the State does not pay a single penny of the expenses of those who do this work.) By vote it was decided that the chair appoint a subcommittee of 10 and refer the rewriting of the standard to this body, with the idea that the redrafted document would be submitted to the larger group at a later date. The subcommittee of 10 spent six full days in considering the standard before submitting it to the general committee.

One hundred and fifteen pages of typewritten copy were returned to the subcommittee, representing the criticism of the general committee. It is now the task of the subcommittee to digest this material and incorporate it into another draft, which will be the tentative code for public hearing. The public hearings involve a campaign of publicity in newspapers and trade journals, and the circularization of all persons of the State who may be affected by any provision of the standard. The meetings will be scheduled at convenient parts of the State, probably in Philadelphia, Pittsburgh, Scranton, Erie, Harrisburg, and other places if found necessary. Stenographic record will be made of all criticism offered at each meeting, and this will be made available for the subcommittee of 10, which will be called together again to make a final draft of the standard. The final draft, when completed, will be submitted at a regular meeting of the industrial board for adoption. It is then distributed to all interested, free of charge.

SAFETY STANDARDS ADOPTED.

The following is the complete list of safety standards now in operation:

Volume I.

Power transmission.
Standard railings and toe boards.
Machine tools.
Boilers.
Stationary steam engines.
Ladders.

Volume II.

Lighting.
Elevators.
Electric.
Cranes.
Scaffolding.
Compressed air.

Volume III.

Forging and stamping.
Polishing and grinding.
Woodworking.
Foundries.
Fire prevention.
Sanitary.

Volume IV.

Bakeshops.
Canneries.
Cereal mills.
Motion pictures.
Shop clothing.
Printing.

Volume V.

Explosives.
Nitro-amido.
Lead corroding.
Paint grinding.
Dry colors.
Plant railroads.

NEW CODES BEING FORMULATED.

In addition to the general revision of all codes now in operation, the department through its regular channels is engaged in formulating the following new codes:

Head and eye protection.
Sanitation.
Laundries.
Housing.
Refrigeration.

PENNSYLVANIA'S ATTITUDE TOWARD THE STANDARDIZATION OF STANDARDS.

Pennsylvania favors standardization and is represented on the national committee by the commissioner of labor and industry. It is not the purpose of the State, however, to give up the work of drafting standards or to lose its identity in the larger movement. The best standards for Pennsylvania will always bear the "Made in Pennsylvania" stamp. There is ever the danger in pooling interests of losing what might be termed the "personal touch." A national body is sure to become a group of experts, in which the technical side will be emphasized, not intentionally of course, at the expense of the human interest. Somebody has said that standards, to be of the maximum value, must be 15 per cent technical and 85 per cent human. The technical or legal must never replace the common-sense viewpoint. This is one of the best features of the Pennsylvania standards.

By this we do not mean that standard making must not rise above the "rule-of-thumb" method. The technical spirit and the legal thought must be incorporated, but only in as far as the industry in which the standard is to apply is educated to the safety idea. Nothing weakens laws or rulings quite so much as making enforcement or compliance unduly difficult. Provision should be made, therefore, to have the standards as simple as possible and, by constant checking and rechecking, adding and subtracting, keep them within the range of those for whom they were intended. It should not be necessary to employ a lawyer to interpret a safety standard, nor should the specifications be such that only an engineer can understand them.

We will be able to get somewhere in the United States if we can have the people at Washington understand what we are trying to do and have the men in Congress in their budget making give to the Department of Labor and the Bureau of Mines a sufficient amount of funds to carry on this work, because I have always said it is the human side which comes in, and the Bureau of Standards in Washington is doing a piece of work that nobody perhaps realizes, except those people who are doing it and we who are in the safety work.

DISCUSSION.

The CHAIRMAN. For the discussion we have John R. Brownell, the first superintendent of safety of California, who came to us, by the way, from the Pennsylvania Steel Co.'s plant at Harrisburg. The time is rather short, and I will ask Mr. Brownell to confine his remarks to a few minutes.

Mr. JOHN R. BROWNELL, of the Equitable Life Assurance Society, San Francisco. In regard to the paper that Mr. Wolflin prepared, I wish to augment the information with just one or two things. The first general orders committee was comprehensively representative, as on it were represented the California Employers' Federation, the California State Federation of Labor, and the California Underwriters' Association, in San Francisco, and the Merchants & Manufacturers' Association, the Central Labor Council, and the Underwriters' Association of Southern California, in Los Angeles. It has always been the policy of the industrial accident commission to have representative bodies give their men, so that there could be no criticism that the commission chose picked men who would cast their votes in a desired way. As to the films that were shown I wish to make two statements: One is that the actors were always men who were used to doing the kind of work portrayed; the second is that in other films which show a great deal of first-aid work the lessons learned by the men who were filmed, such as the preparation of the crude stretcher, have been of inestimable value in the lumber industries. I agree with Mr. Wolflin that his work is hampered by lack of men for general inspection. Particularly, as I see it, there is need for a man to be assigned to the lumber industry alone, which I understand is soon to be done. Excellent work is being done in the different departments, which, I think, were selected in the right way fundamentally. Politics was not allowed to influence in any way the selection of the first safety men or any other men now connected with the industrial accident commission, and I think that is something California may well be proud of.

Prof. Whitney so ably discussed the paper by Dr. Rosa that I shall say practically nothing about that, except that the work of the national safety codes committee will be invaluable to those States which desire to have an American standard, and certainly your body is the one to get back of it for any legislative functioning.

I read with a great deal of interest, of course, the paper of Dr. Connelley. There are some pertinent features there, and some on which he did not touch. It seemed to me the vital thing in Pennsylvania's work is its safety program. The approvals committee has doubtless done excellent work. There is great danger that unless

such an approvals committee is wisely chosen, the hint of commercialism is apt to be made. Evidently Pennsylvania has seen to it that such was not the case there. I think Dr. Connelley was mistaken in saying the Pennsylvania industrial accident prevention conference was the first safety conference of its kind, because certainly the National Safety Council congresses are equally broad in their scope. The medical conferences are undoubtedly of great value. One particular thing he did not touch on is that in their bulletins on accidents that have happened they print an analysis of the accident and a definite recommendation for its prevention in the future. Also the very vital subject of school education should be included, because, as Mr. French said, the whole subject of safety has to be handled in a broad way in this country, including the accidents which are not wholly industrial. The department in Pennsylvania has a peculiar body called its "flying squadron," which consists of specially qualified men in their inspection force to investigate accidents that happen, and that flying squadron has made special studies of great value. I would speak of the splendid standards of Pennsylvania, and I wish to call your attention to one matter which struck me as being indeed extraordinary, a ruling of the industrial board on Americanization in Pennsylvania. It states here, "No person shall be permitted to labor in any group employment in a position of command or obedience who is unable to speak or understand the language of his or her colaborers, whereby through misunderstanding accident and injury are apt to result to fellow workers." That is indeed drastic and interesting.

Now, Commissioner French has asked me to be brief, so I shall close with a very favorite quotation, the epitome of accident prevention: "Safety, and the end is that the workman shall live to enjoy the fruits of his labor; that his mother shall have the comfort of his arm in her age; that his wife shall not be untimely a widow; that his children shall have a father; and cripples and helpless wrecks who were once strong men, shall no longer be a by-product of industry."

The CHAIRMAN. The next on the program, and the concluding speaker, so far as the discussion is concerned, is Commissioner C. H. Younger, of the State of Washington, but he is not here. By the way, a representative gentleman of the State of Washington has asked that a paper prepared by one of the State organizations there be added to the program, and if there is no objection it will be so added.

THE SAFETY MOVEMENT IN THE STATE OF WASHINGTON.

BY HARVEY J. KELLY, ACTING SECRETARY, STATE SAFETY BOARD OF WASHINGTON.

The safety movement as a Washington State enterprise is yet in its infancy. It can move only as fast as educational propaganda can mold sentiment in its favor among employers. Upon the employer rests the burden of giving safety a place of importance in the administration of his business. His cooperation, coupled with the educational work of the State safety board, can reduce to a minimum the preventable accidents which, in the Washington lumber industry alone, have killed 91 men and maimed 4,199 others between May 1 and August 31, 1920, at a cost to the industry of $468,414 in money for compensation alone, and untold physical and mental suffering by workmen and their families.

The money loss does not take into consideration the inestimable loss in production through labor turnover, disorganization, and unsettled conditions brought about through industrial accidents, or the cost of medical aid. It does not represent pending unsettled claims of recent accidents. In other words, the amount named can be considered a portion only of the real cost.

"Prevention of" rather than "compensation for" industrial accidents is the broad principle upon which the Washington safety law is based. The State safety board, created by that act, has completed the first year of its existence and is energetically driving toward its objectives.

Those objectives, briefly stated, are the elimination of preventable accidents in Washington industries through engineering revision and through education and the compilation of statistics upon which will be based the merit rating of employers. The undertaking is so great and is so interwoven with the economic life of the State that progress, of necessity, must be slow. The first year was consumed largely in hewing away the mountain of detail which confronted Washington's first State safety board when the law became effective in June, 1919. It did not become operative until October of that year.

To understand fully the operation of the State safety board, its personnel, and functions, it is necessary to go briefly into the history of the workmen's compensation act and the related medical aid and safety acts. The last two are interlocking to a certain extent.

Following the passage of the workmen's compensation act in 1911, Washington was without a workable medical-aid law until 1917, when the present medical-aid board was created.

The medical-aid act is based upon the theory that industry, the creator of industrial accidents, should bear the cost of repairing, so far as is humanly possible, workmen broken by these accidents. It differs from the compensation act, which charges the entire bill to the employer, in that both the workman and employer contribute equal parts of the fund. The employer, under penalty, is responsible for the collection of the workman's half.

The levy ranges from 1 to 3 cents per man-day, according to class. Workman and employer are both represented on the State medical-aid board. Dr. John S. Kloeber, of Yakima, is the representative for the employers and Martin J. Flyzik, of Seattle, is the representative for the workmen. Dr. J. W. Mowell, of Olympia, chairman of the board since its creation, is the third member. This board, under the medical-aid law, furnishes free of charge to injured workmen coming within the scope of the workmen's compensation act, hospital care, medical and surgical treatment, artificial limbs, eyes, or teeth, and under certain conditions glasses.

Prior to June, 1919, the field work of this board was done by local aid boards in all industrial centers of the State. These boards consisted of two members, a workmen's representative and an employer's representative.

Until 1919 there was no State direction of accident-prevention work and no workable merit rating for employers. It is notable that the lumber industry, through the organization of safety councils and the employment of safety engineers, took the lead in safety work in Washington. But the careful employer, who cut his accident cost to the minimum through safeguarding and safety educational work, found his efforts nullified by the careless employer, whose accident costs ran far above his contribution. Both paid the same rate for insurance. There was a crying need for some system whereby the employer who cost the accident fund the most would pay the most for his insurance. This system is provided in the safety act.

By the terms of that act the two members of the State medical-aid board, other than the chairman, constitute the State safety board. The labor commissioner and State mine inspector are advisory members without vote. The appropriation for carrying on the work comes one-half from the medical-aid funds and one-half from the general fund of the State.

Local aid boards were abolished and in their stead were created three district boards to perform the field work for both the State medical-aid board and the State safety board.

The State is districted between offices at Spokane, Seattle, and Tacoma. Each district office maintains one or more subdistrict offices within its territory. The office of the State board is in the statehouse at Olympia.

The board members, Dr. John S. Kloeber and Martin Flyzik, faced an uncharted sea at the beginning of their administration. There was no beacon light of experience to assist them in shaping a course. Immediately confronting them was the task of organizing a headquarters staff and equipping a head office and three district offices; there were district board members and assistants to examine as to qualifications, and to appoint; safety device, safety place, and safety educational standards fitted to 50 classes of industry to promulgate and publish; a statistical department to build up; a multitude of forms to devise and have printed; and overlapping and duplication of work to be eliminated. The thousand and one details incidental to building up a State-wide organization presented a veritable mountain of work. The board attacked it resolutely.

John W. Pace, a veteran in secretarial work in connection with large undertakings, was appointed secretary of the State board. Ira

L. Lockney, an experienced safety engineer, was appointed consulting engineer. Tentative standards were published and hearings held for every class of industry throughout the State. At these hearings individual employers could voice objections to any provisions of the safety codes as proposed.

It was found that the work of field assistants of the district boards and field assistants of Labor Commissioner Charles Younger overlapped. Cases came to the attention of the board where plants were inspected by a representative of both departments on the same day. One employer told a field assistant that along with his safety committee he thought he would organize a reception committee for State inspectors. The field work of the two departments was coordinated. Deputies were assigned to different districts, wherein they perform periodically the inspections for both departments.

Following the hearings, safety standards were adopted. By these standards will be measured compliance or noncompliance on the part of the employer with the general spirit and letter of the safety law.

Compliance with the standards entitles an employer to the following awards, based upon his contribution to the accident funds: Safety device standards, 5 per cent; safe place standards, 5 per cent; safety educational standards, 10 per cent. Noncompliance involves a penalty in like amount.

An additional award of 10 per cent may be earned, or penalty incurred, by the accident experience of the firm. In other words, the ratio which the accident cost bears to the contribution to the accident fund affects the insurance cost to the employer. Thus, it can be seen, there is a range of 60 per cent possible between employers who comply fully with the standards and cut their accident cost below the average and employers who do not comply, and whose accident cost soars above the average.

The safety device standards adopted contemplate guarding all possible points of hazardous contact between workmen and moving machinery. Improbable points of contact are included, as well as those points where duty takes the workman. In other words, the standards contemplate making moving machinery as nearly "fool proof" as possible in so far as accident causation is concerned.

The safety place standards are closely related to the safety device standards. Manifestly, it would avail nothing in accident prevention carefully to guard moving machinery hazards and leave unsafe floors, ladders, stairs, platforms, and other hazards too numerous to mention, in plant, yard, and woods.

The safety educational standards are considered most important, and as such carry the highest award for compliance or penalty for noncompliance, as the case may be. It is estimated by safety experts that three-fourths of the preventable accidents (and 80 per cent of all accidents are preventable) are due to unsafe practices and carelessness on the part of workmen in every industry.

Education is the only method of combating this class of accidents, and upon safety education the State safety board is bending every energy.

A free bulletin service is maintained and bulletins are sent out to every employer monthly for use on bulletin boards. Lectures illustrated with moving pictures are provided at intervals. Thousands of

standards have been furnished for free distribution. Schools of first-aid and safety instruction are conducted by district boards and their assistants, under the supervision of the State safety and medical-aid boards. Several hundred first-aiders have been trained among employees in Washington industries since the State safety board commenced to function. These employees have been taught safety committee work and how to care for injured fellow employees when accidents occur until the doctor arrives. In the statistical department an account is kept with every employer under the workmen's compensation act in the State. Each item of cost to the accident or medical-aid funds and contributions thereto are recorded.

It is a tribute to the constructive genius and ability of the State safety board that the mass of expensive detail surrounding the launching of so great an enterprise has been cleared away, and the organization is approaching the end of the biennium well within the limits of its appropriation.

The requirements of the safety educational standards have been made very easy to comply with. Two things only are necessary. They are: (1) The forming and continued operation of a safety organization under one of the plans set forth in Code No. 2; and (2) the installation and continued maintenance of a bulletin board.

A theoretical safety organization can not earn the award. Monthly reports from the safety committee or inspector must be mailed to the State safety board upon Form No. 33, which is provided for that purpose. This is the only official documentary evidence that a firm is complying with the educational standards and is very important. All information asked for on it should be supplied.

If the plant is shut down the report should be filed stating that fact. In the absence of any report the safety board can not determine whether the plant is shut down or its safety organization is failing to function. The thousands of these reports filed in increasing numbers each month furnish evidence that the efforts of the board are meeting with success.

Throughout the administration of the safety law by the State safety board there has been a noticeable absence of friction or arbitrary and hasty actions. The board and the various safety councils of the State work harmoniously toward the common end. Many men from the original field staff have left to accept positions as safety engineers of new safety groups organized by employers.

To the industries of Washington the State safety board extends a helping hand and a willingness to assist each employer to earn the various awards.

The CHAIRMAN. That, I think, concludes the set program, and I take it, the time being nearly half past 12, it is late enough to close this meeting. At the close of this meeting I want to ask the executive committee to meet.

The papers have all been printed and are available at the table outside. When speakers were invited it was announced that it was not desired to read the papers, but to summarize or to add to them, or in some other way to discuss the matter without the formality of reading, largely because it takes considerable time to read papers, and the other plan is far preferable. That has been followed at other conventions of the International Association of Industrial Accident

Boards and Commissions, and will be the rule at this. The next session will be held at 2 o'clock this afternoon, and then there will be an evening meeting at 8 o'clock that will be particularly interesting. Of course Gov. Stephens will not be here, he having come this morning, but we will show for a few minutes a rehabilitation reel prepared under the auspices of the Industrial Accident Commission of the State of California. We have a young man who is without hands who will discuss our work for a few moments, and he will pass around for your benefit some samples of his penmanship. He is a splendid penman, and you will be surprised to see what he can do. In addition there are various speakers who will discuss this important question from different angles, and I am sure you will all be present. It is the only evening session we will hold of this character, and you will miss a very great deal if you are not with us.

The various committees will be appointed and named either at the next session or at the evening session.

When Dr. Meeker resigned to go to Switzerland a number of months ago a very excellent choice was made in his successor pro tempore, Mr. Verrill being chosen.

We have at 529 Market Street a safety museum I think you will find well worth visiting; our offices are upstairs above the museum, and we shall be glad to show you around at any time.

If there is no further business to come before this session we may adjourn. Hearing none I shall declare it adjourned, and we shall meet at 2 p. m.

MONDAY, SEPTEMBER 20—AFTERNOON SESSION.

CHAIRMAN, CHARLES S. ANDRUS, CHAIRMAN, ILLINOIS INDUSTRIAL COMMISSION.

ADMINISTRATIVE PROBLEMS.

Mr. FRENCH. At the conclusion of the morning session it was presumed we would hold a short business meeting, appoint committees, and hear the reports of the secretary-treasurer, but it has been decided to delay those three items until the beginning of this evening's program, because they will not take long.

The chairman for this afternoon's session comes to us from the Illinois Industrial Commission. He is the vice president of our International Association, Mr. Charles S. Andrus, and I take pleasure in introducing Mr. Andrus and leaving the chair to him.

The CHAIRMAN. I presided at a meeting last year at Toronto, and I was under very definite instructions from Dr. Meeker, our secretary, to see that nobody exceeded his time limit. He sent me a program with the amount of time each speaker should have written in red ink, and I announced before the discussion started that according to my instructions I was going to stop each speaker at the time set, and I did. I received many congratulations from members of the association; in fact, nearly everybody congratulated me except the speakers. Some of the speakers would hardly speak to me for two or three days. Dr. Meeker's idea of speakers is a disappearing platform, in which at the given time the platform and the speaker disappear. It is hardly practical, however. Unfortunately, and without the slightest excuse, I left at home my program which held the amount of time each speaker should have; but I trust you realize that we have a great many things to discuss and that you ought not to exceed the time limit which was given you.

The subjects this afternoon are both of practical importance to all commissions, no matter what their insurance system is.

The first subject is in regard to compensation for eye injuries. Those of you who were at Toronto last year remember that there was a great difference of opinion among members of the commissions as to what should be done, especially as to the adoption of a percentage system, reducing the Snellen system to percentages, and we will have that matter discussed this afternoon. Instead of taking any action on that matter last year, it was referred to the medical committee, of which our good friend, Dr. Donoghue, who has attended every meeting of the association I think, at least every one since I became a member, and who has taken a vital interest in this subject, is chairman. We will now hear Dr. Donoghue, medical adviser of the Massachusetts Industrial Accident Board.

REPORT ON EYE INJURIES.

(First Report of the Medical Committee.)

BY FRANCIS D. DONOGHUE, M. D., MEDICAL ADVISER, MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

The purpose of the medical committee in preparing this report should not be to go back of existing laws or to concern itself with the reasons underlying specific compensation payments. A principle honored by general acceptation must serve the purpose of practicability. It may be considered unwise, therefore, to suggest radical changes, but rather to concern ourselves with simplifying by broad interpretation the administrative problems.

The eye, it would seem, occupies a place by itself in the compensation law, in that the earning power in a large number of trades and employments depends upon the working condition of the organ of vision. "Nearly all trades and professions require good sight, even the coarsest sort of labor being affected if the vision falls below 50 per cent, and being impossible if it is below 0.05 per cent of the normal visual acuity. For finer kinds of work the visual range is between 75 per cent and 15 per cent. A workingman who either suddenly or gradually becomes blind loses his job and with it his earning ability." (Würdemann—Injuries of the eye.)

In considering the factors in occupational vision, we must consider "first that the most important of the visual factors is the central visual acuity; next in importance is the visual field; and the next the ocular motions. There are secondary factors concerned in the act of seeing that are physically of importance, which are the cerebral vision, the sense of light and color, and that of adaptation. Accidental injury limited exclusively to any one of these factors is certainly not recognizable; for where such takes place other portions of the visual act, especially the visual acuity, and the field, are implicated. Therefore, we include the secondary functions when we treat of injuries to the three primary factors of vision." (Würdemann—Injuries of the eye.)

It is our purpose to call attention to statutory defects concerning the conditions under which specific compensation is to be granted following ocular injury. In some acts it is laid down that specific compensation is to be granted when vision is reduced to one-tenth of normal with glasses. But what constitutes normal, and how is a board of laymen to determine intricate points in higher physics when statutory language is either defective, ambiguous, or nonspecific? To correct this situation let us lay down two theses:

I. Normal central visual acuity is not normal vision.

II. One-tenth of normal vision does not mean one-tenth of normal central visual acuity alone.

It (II) means normal central visual acuity and normal peripheral vision, or, said another way, a normal field of vision with lowered

central visual acuity. So that any attempt to construe normality in terms of central vision alone is bound to work injustice in many cases. What, for example, boots it for a man to possess with glasses 100 per cent central visual acuity, or normal central visual acuity, and at the same time possess but 50 per cent of his visual field?

As illustrating this is the case of ———, who has a cuneal hemorrhage. Now, a cuneal hemorrhage may mean that if on the mesial surface of the occipital pole of the cerebrum, on one side, there occurs destruction of tissue by reason of circulatory change, the resultant change in the field of vision is that in one eye the whole temporal (50 per cent) part of the visual field and in the other eye the whole nasal (50 per cent) part of the field become perfectly black and nonexistent, a condition known as "homonymous hemianopsia." Who shall say that this vision is normal because the central visual acuity is 100 per cent in either eye? Must not any act which is intended to be not only equitable but welfare-working take into account the loss of visual breadth of this case?

For example, the Massachusetts act says that specific compensation can only be granted when the vision is reduced to one-tenth normal with glasses. The practical working out of this is, however, that a broad-gauged and properly advised commission has had the wisdom to grant specific compensation in traumatic cataract even when the resultant vision is 100 per cent. Is not this in contravention of the law? Not at all—the answer is that after cataract operation the vision is only obtained by putting up a thick convex lens before the operated eye, and that if the other eye be either normal or approximately normal it is impossible to make use of the operated eye. The value of the operation under such circumstances is but potential. The vision may only be had in event of losing the remaining sound eye, and not until that time is reached.

A further limitation of use of the operated cataractous eye lies in the fact that in order to read a still thicker convex lens than that mentioned for use in obtaining distance vision is necesssary, requiring constant change of glass from one focus to the other, and further still, there is but a very inelastic focal range for near work. This changing so handicaps a worker that the occupational possibilities for those depending on vision following cataract operation, no matter how good the resultant vision may be, are extremely limited. In the same way, it is possible to get after injury central visual acuity of four-tenths, five-tenths, six-tenths, or eight-tenths, with a coexisting detachment of the retina, but also with a badly damaged field and annoying subjective symptoms of light flashings and other unpleasant subjective sensations, so that the eye is without practicable value.

It follows that in a laborer, shoveling or working with gross tools, two-tenths to three-tenths would still permit adequate binocular vision for the occupational needs, while in a machinist's helper, handling a micrometer screw or gauge, it would not only not be helpful but the binocular vision obtained would be confusing by reason of the blurring of the superimposed image from the defective eye, so that the man would actually be better off with the injured eye covered, even though the vision of the covered eye taken separately might be as high as four, five, or even six tenths.

Or, again, for example, if a watchmaker has a resultant vision of as high as seven-tenths in a master eye, with circles of diffusion from the slight irregular astigmatism which blurs the image—particularly if obliged to work in artificial light—he may yet have binocular vision, but not useful binocular vision, in that he is unable to do his former work; whereas a factory hand may work levers, put in shuttles, or feed a press with a resultant three-tenths or possibly two-tenths vision in the injured eye, still having adequate useful binocular vision meeting the needs of that type of occupation.

The same objection occurs in hyalitis, vitreous opacities—island scotomata, gunbarrel fields of hysteria, choroidal changes, and many other conditions—so much so that it is imperative that any act, in order to render justice in post-traumatic ocular conditions, must be broad and elastic in its wording, leaving the interpretation in the individual case to the administrative board, which will take into account in its findings the occupational requirements, age, station, education, and occupational training of the injured employee in determining whether or not specific compensation is to be awarded instead of fixing an arbitrary low point which in reality shows nothing and works hardship.

Attempts to reduce complex human mechanism to formulas are very old. Nowhere has this tendency been more pronounced than in the attempt to formularize visual economics. And both effort and object are alike laudable were it not for the fact that we are dealing not in terms of constants nor of approximate constants but with a multiplicity of variables admitting of such broad limits of interpretation that in each instance the variable becomes a subject of expert discussion. Thus when the number of such variable factors approach 15 to 20 to the completed formula with the end design of estimating visual diminution in percentage, together with its value to the particular individual, of what practical value is such a completed formula if each component term is again to be made the object matter of expert controversy and time loss?

The human machine is not the sum of its parts; a man is not the sum of his functions. He is the sum of his functions plus an individuality. This individuality—it is bromidic to say it—is the difference between success and failure, between artistic achievement and barren years of effort, between efficient economic output and discouragement.

To particularize: For 35 years attempts have been made so to estimate visual diminution or loss in terms of central and peripheral visual acuity—in percentage, in terms of age, occupation, social status, general health, education, physical type—residual condition of opposite impaired or unimpaired eye, and many other more or less factors, with the idea of rule-of-thumb adjustment in visual loss from injury or disease. As in so many other avenues of human activity, such data can only be computed as integers and measured in their entirety by the life-trained individual who can properly separate the essential from the nonessential and winnow the wheat from the chaff.

Formula construction applied to the human eye and its functions has been done 25 years since, and thoroughly done, admitting of but little improvement. If you concede the value of a formula having for its aim estimation of economic visual loss in percentage it is

ready at hand and has been so for a quarter of a century, having appeared in Visual Economics, by Magnus and Würdemann, 1902. More recently we have had the efforts of the Chicago Ophthalmological Society, reported by Dr. Frank Allport in the Monthly Labor Review of the United States Bureau of Labor Statistics of April, 1920. His table is as follows:

Basis of settlement of visual losses in one eye.

20/20	indicates	100	per cent	of visual	efficiency	and	no	loss	of	vision.
20/30	"	94.5	per cent	of visual	efficiency	and	5.5	per cent	loss	of vision.
20/40	"	89.0	per cent	"	"	"	11.0	per cent	"	" "
20/50	"	83.5	per cent	"	"	"	16.5	per cent	"	" "
20/60	"	78.0	per cent	"	"	"	22.0	per cent	"	" "
20/70	"	72.5	per cent	"	"	"	27.5	per cent	"	" "
20/80	"	67.0	per cent	"	"	"	33.0	per cent	"	" "
20/90	"	61.5	per cent	"	"	"	38.5	per cent	"	" "
20/100	"	56.0	per cent	"	"	"	44.0	per cent	"	" "
20/110	"	50.0	per cent	"	"	"	50.0	per cent	"	" "
20/120	"	41.0	per cent	"	"	"	59.0	per cent	"	" "
20/130	"	36.5	per cent	"	"	"	63.5	per cent	"	" "
20/140	"	32.0	per cent	"	"	"	68.0	per cent	"	" "
20/150	"	28.5	per cent	"	"	"	71.5	per cent	"	" "
20/160	"	23.0	per cent	"	"	"	77.0	per cent	"	" "
20/170	"	18.5	per cent	"	"	"	81.5	per cent	"	" "
20/180	"	14.0	per cent	"	"	"	86.0	per cent	"	" "
20/190	"	12.0	per cent	"	"	"	88.0	per cent	"	" "
20/200	"	10.0	per cent	"	"	"	90.0	per cent	"	" "

Snellen's test letters are used and should be hung in a good light 20 feet from the applicant. The uninjured eye should be covered during the test. Vision is expressed in fractions. The distance of the applicant from the letters constitutes the numerator of the fraction; the smallest line seen constitutes the denominator. Thus if the applicant is seated 20 feet from the letters and can see the line marked 20, his vision is 20/20 or normal. If he can only see the 50-foot line, his vision is 20/50, etc. The applicant should be given credit for a line if he can read a majority of the letters in the line.

This table assumes that if an injured applicant can see the 200 line while sitting 20 feet away—in other words, if he has still a vision of 20/200—he is not industrially blind; his visual efficiency is 10 per cent and his visual loss is 90 per cent. If his vision is worse than 20/200 he is industrially blind. From 20/200 vision is gradually scaled up to 20/20, or normal, by fractions of 10, as will be seen on the table, and estimations of visual efficiency and visual losses deducted thereby.

A similar table prepared by Dr. V. A. Chapman, of Milwaukee, Wis., and presented before the American Academy of Ophthalmology and Oto-Laryngology in a paper which he read at its annual meeting, at Pittsburgh, October 30, 1917, varies from Dr. Allport's table only slightly, and is as follows:

Chapman's percentage vision table.

20/15	=100	per cent	vision	=superexcellent vision.						
20/20	=100	per cent	"	=no loss of vision.						
20/30	= 95	per cent	"	= 5	per cent	loss	of	vision.		
20/40	= 90	per cent	"	= 10	per cent	"	"	"		
20/50	= 85	per cent	"	= 15	per cent	"	"	"		
20/60	= 80	per cent	"	= 20	per cent	"	"	"		
20/70	= 75	per cent	"	= 25	per cent	"	"	"		
20/80	= 70	per cent	"	= 30	per cent	"	"	"		
20/90	= 65	per cent	"	= 35	per cent	"	"	"		
20/100	= 60	per cent	"	= 40	per cent	"	"	"		

20/110=	55	per cent	vision=	45	per cent	loss	of	vision.
20/120=	50	per cent	" =	50	per cent	"	"	"
20/130=	45	per cent	" =	55	per cent	"	"	"
20/140=	40	per cent	" =	60	per cent	"	"	"
20/150=	35	per cent	" =	65	per cent	"	"	"
20/160=	30	per cent	" =	70	per cent	"	"	"
20/170=	25	per cent	" =	75	per cent	"	"	"
20/180=	20	per cent	" =	80	per cent	"	"	"
20/190=	15	per cent	" =	85	per cent	"	"	"
20/200=	10	per cent	" =	90	per cent	"	"	"
20/210=	5	per cent	" =	95	per cent	"	"	"
20/220=	0		" =	100	per cent	"	"	"

These tables appear to be supererogatory. The need is not so much for a measure of central visual acuity under this table or that (and Snellen serves perfectly well without embellishment) as a measure of practicable vision. No attempt to modify any present standard of central visual acuity meets this requirement, and so many are the factors to be taken into consideration in the individual case, some of which, naming only a few, are intensity of the light sense, size and character of the visual field, industrial requirement of the individual case, previous training, doctrine of master eye associated with right or left handedness, and muscular errors, that any attempt to create an arbitrary table which would adequately evaluate these factors is a practical impossibility.

It is therefore evident that those men involved with the practical administration of the law involving complex formulas and scientific facts must choose a practical and working ground between tables and charts or the other extreme of mathematical formulas, impracticable by reason of their complexity even if correct in the scientific sense.

In administering present laws and in striving for changes, such laws as have the wording "to one-tenth of normal vision with glasses" are unjust and can not be too quickly discarded. Three-tenths should be a minimum, and specific compensation should be granted when vision is reduced to three-tenths of normal central visual acuity if no concurrent field or muscular defect exists.

Specific compensation for the loss of vision should be within the discretion of industrial accident boards, who in granting such compensation should have in mind the occupational visual requirements, previous training of the injured employee, and the fact that one eye was better than the other before the injury. When central visual acuity of five-tenths of normal with glasses exists, specific compensation should not be granted unless a considerable defect of the visual field exists whereby the resulting vision is impracticable.

Industrial accident boards should take into account not only central visual acuity but also central or peripheral field defects of permanent or annoying conditions, such as dazzle, blend, or diffusion circle. Arbitrary construction of present laws may work an injustice in a very large portion of cases.

To adjudge such cases, the rationale must be—

1. Is binocular vision necessary for the occupation?
2. Does the employee have binocular vision?
3. Is the resultant vision of the injured eye such as to produce useful or nonuseful binocular vision?

It then follows that for an equitable award in the given case, at least the following procedure must be carried out:

1. The exact vision of either eye must be established.
2. The master eye must be determined.
3. The visual needs of the particular occupation must be considered (not difficult).
4. A decision should be rendered, after hearing testimony on those three points, as to whether the vision in the injured eye is so low as to preclude useful binocular vision in the individual's occupation.

In board practice this would readily work itself out by (which amounts to a paraphrase of the foregoing)—

1. Categorizing occupations in terms of their visual requirements.
2. Obtaining visual data of injured and other eye by impartial examinations, together with a statement as to binocular vision and master eye.
3. Determining by conference, hearing, or even by impartial report alone (as is possible in all but very few of these cases) whether the resultant vision in the injured eye is so efficient in producing binocular vision that the binocular vision thus obtained will enable the employee to carry on his occupation as before.

The boards may well consider the establishment of standard methods of examination, and as the law at present reads "to one-tenth of normal vision" the committee considers standardization upon that basis, although the same standards apply if the minimum vision be stated as two-tenths or three-tenths, and as many laws read "with glasses," that also is considered.

The following factors should be taken into account:

a. A definition of normal vision expressed in terms of ability correctly to interpret form at infinity.

b. Test object and illumination.

c. Examination methods.

d. What is considered one-tenth of normal vision.

e. A word as to the practicability of that part of the law which reads "with glasses."

a. By normal vision is meant the ability correctly to interpret at infinity symbols that are constructed according to definite mathematical formulas, in that the letter or ideograph as a whole must subtend an arc whose visual angle is five minutes and the component parts of the letter a visual angle of one minute measured from the top and bottom of the letter to the nodal point of the eye. The symbols used may be letters in English (Roman), Hebrew, Russian, Greek, or any other form of letters or hieroglyphics or ideographs, provided only the arc subtended be five minutes and the parts one minute.

b. The letters or symbols should be illuminated more diffusely than focally from any steady source and within rather broad limits, say of from 2.5 to 5 foot candles when artificially illuminated (and for purpose of uniformity artificial illumination is always best), but in no case be so overilluminated that glare and cross lights result. The illuminating source should be screened from the examined. The symbols should, except in the instance of measuring the light sense as in glaucoma or optic atrophy, show marked contrast to the background. Some have personal preference for india

ink or lampblack etched into white porcelain and as second choice black printed letters on a white card.

c. The examined is placed at infinity (the distance at which accommodation and convergence no longer act, roughly 21 feet) and is instructed to read—each in language of preference—and in the case of illiterates to tell the content of an ideographic card. Having ascertained the visual acuity of either and both eyes at infinity, the individual is moved to different distances and again told to read to the extent of his ability. This properly done is a time-consuming maneuver but has the desirable quality of exactness in that a half dozen or a dozen distances may be tried and the result fraction or percentage must always be the same. Such procedure is the only way in which exact vision may be obtained and proved, and must accord with the corroborative results of skiascopy, keratometry, and examination of the fundi. These last three should always be done, and a record of vision without these records, while not valueless, is inexact. With them in experienced hands there can be no cavil as to visual results, even in those cases which are either just above or just below the arbitrary one-tenth of normal standard the law sets. Such method contrasts violently with the rule of thumb adopted in quick examinations of placing the patient 20 feet from the card and asking him if he can "see the big E." The necessity of using skiascopy, keratometry, and fundus examinations is shown if the law expressly states vision with corrective glasses, and corrective glasses are properly not a matter of subjective choice as an individual part but are a carefully worked out formula obtained objectively by these methods before put upon the patient for correction. To sum up, either eye is tested separately at varying distances for the purpose of proof and checking, and further checked by objective methods.

d. That eye should be considered below one-tenth of normal which with correction fails to read test symbols designated for ten times the distance of the patient from the symbol, repeating the test at varying distances and checking for uniformity of results and finally showing a consistence with objective tests.

e. A word as to glasses. In just the same way a thick biconvex lens of 12 dioptrics over an eye operated for cataract can not be worn for practical purposes when a good opposite eye is present, and consequently for purposes of the law such an eye is to be considered as lost or valueless, just so impracticable is the correction of the irregular astigmatism caused by corneal cut (and a very large percentage of industrial eye injury results in corneal scarring from cut, burn, or traumatic ulcer), since the glass which corrects must needs be adjusted to such a degree of nicety as regards axis that in event of opposite sound eye, the glass which corrects the injured eye is generally of no value to a laborer or an artisan, and oftentimes is not tolerated even when urged. In this respect the law "with glasses" should be as broadly interpreted as in the instance of the cataract glass. In the working out of such a revised law a proper report of ocular examinations should contain a statement, not merely of the central visual acuity, but also a statement of field measurements of the light sense, refraction, and adaptation index of the particular eye to the individual's occupation both before and after injury (if possible).

To summarize, a standard eye examination would be about as follows:

I. A visual test—with vision expressed for either eye, according to Snellen or Monoyer, both in the refracted or unrefracted states under a diffused light of not less than 2-foot candles and not so great as to produce glare. This gives wide range.

II. The nature of the refraction.

III. A statement as to the fundi and refractive media.

IV. The retinoscopic data of either eye.

V. The ophthalmometric data of either eye.

VI. The visual fields—in important cases reduced to diagrams in degrees—giving peripheral limitations, central, para central, and peripheral scotomata.

VII. Data of external eye.

VIII. The muscular balance.

IX. Data of adnexa.

DISCUSSION.

The CHAIRMAN. You will remember last year that Mr. Wilcox, of the Wisconsin commission, had some very firm and decided ideas about this subject, and I understand that since then the Wisconsin commission, of which he is a member, has adopted such a table. Mr. Wilcox is not here to-day, but Mr. Konop, a member of the Wisconsin commission, is here and will lead the discussion on this subject.

Mr. THOMAS F. KONOP, commissioner, Wisconsin Industrial Commission. In looking over the table presented by Dr. Donoghue I find that it is about the same thing as that we have adopted in Wisconsin. We have not adopted anything formally. We have been waiting for the report of this committee to suggest something that could be practiced in all the jurisdictions and then we will adopt that.

Now, in our State the compensation act provides for 140 weeks for the total loss of vision. Up to about two years ago, or probably not that long ago, every time when the doctor said that a man's reading was 20/40 after an accident to his eyes we took the 20/40 of 100 and rated him one-half loss of vision, which was a very simple way to do. But since the war or since they began to examine applicants for service in the Army why we thought we had to adopt a different principle. As I said before, we have not adopted any table, but we follow a tentative table like this. The only difference is that at the present time we call 20/200 total loss of vision. Then we also have 20/30 as about 5 per cent loss of vision, but if a man by the use of glasses can get that normal, 20/20, then we allow him one-half of the 5 per cent, or $2\frac{1}{2}$ per cent loss. That $2\frac{1}{2}$ per cent we think is to compensate the man for the inconvenience of wearing glasses in order to bring his eyes to normal vision. There is only one difference between this table of Dr. Donoghue's and ours; that is, ours is much shorter. We do not have all these different steps. I think we have only about 10 steps in all, 20/20, and 20/30, and 20/40, and 20/80, and 20/100, and then we jump to about 20/120, and 20/200 is total loss of vision.

Now, before we began using this table we had two meetings at Milwaukee with the Ophthalmological Society of Milwaukee, eye

experts, and we had a thorough discussion of the subject. Of course, it necessitates in every case a statement from the doctor, who offers his report or his testimony in open hearing before the commission in order to have a record that will stand the test of the courts. We have had this doctor make a statement in the record of 20/40 sight remaining after injury; that does not mean one-half loss of vision, but it means less than that. If our finding is 20/40, instead of allowing, as the doctor has it, 11 per cent, I think we allow 16 per cent. On this 16 per cent we can make our finding, and it has been sustained by the courts. I do not know whether you practice the same way in the administration of the compensation act, but we have three examiners and two of the commissioners, Mr. Wilcox and myself, who are actively engaged in going around and adjusting compensation cases. We visit every corner of the State, take in the principal county seats, and have a schedule calendar wherein we probably spend six days a week in adjusting compensation cases.

The CHAIRMAN. You will remember the excellent discussion we had in Toronto on eye injuries, a paper presented by Dr. Trebilcock, who does the eye work for the Ontario board, and the next person who will discuss this subject will be Commissioner George A. Kingston, of Ontario, who, as you know, last year was president of the association.

Mr. KINGSTON. I am very glad indeed to see this subject given practically first place in the convention proceedings; and I want to congratulate the association on the work that its medical committee has performed in preparing this report. I do not agree by any means with everything in it, but, nevertheless, Dr. Donoghue has presented a subject for discussion, and he has discussed it in a way which I am sure will benefit everyone who is interested in the subject. Some of you who attended the Boston convention will remember I tried in a very weak way to present some of the problems in eye-injury cases which we as commissioners have to solve. I tried to improve on that last year by presenting to you Dr. Trebilcock, of Toronto, a first-class eye specialist, and it was as a result of the discussion following Dr. Trebilcock's excellent paper that Mr. Wilcox moved a reference to the medical committee, which has resulted finally in the presentation of this report to-day. If Dr. Donoghue were the medical adviser of the Ontario board he would be where he has expressed himself as desirous of being with relation to a compensation law. Fortunately for the administering board there, we are vested with the fullest possible discretion in awarding compensation in the particular case for the particular injury and having regard to all the elements of impairment which are reported. Visual acuity, as Dr. Donoghue has stated, is of course only one of the difficulties which one finds in dealing with an eye injury, and of course, it is very wrong to attempt to size up such an injury on a report which does not indicate all the surrounding circumstances and conditions as well as the impairment of visual acuity. No one should attempt to rate an eye injury without knowing the visual acuity, and amongst other things he should ask: What is the retina like? Is the lens clear? Is the fundus normal? Is there good reaction to light? and, Is there any narrowing of the field? Claimant may see straight ahead, but not this way, or this way (indicating with hand one side and then

the other). A man may have practically 100 per cent visual acuity and yet he may have a very poor eye. Is that not so, Doctor?

Dr. DONOGHUE. Yes; absolutely.

Mr. KINGSTON. I hope something will come from this discussion which will result in a standardized form. We use a certain form in Toronto, but I am not altogether satisfied with it. We were talking of a bureau of standards this morning. I don't know whether the Bureau of Standards at Washington ever discusses such subjects as this, but it would be an ideal thing for this convention if we could have a standard eye form which each commission would use and regard as quite the last word in that respect; then we might possibly hope to reach something like uniformity in dealing with these cases. In Toronto we have adopted the following basis or scale, not because the law says so, but, groping in the dark, so to speak, for a basis upon which we should rate eye cases, or determine the loss in the particular case, we have said that if a man has lost his eye—that is, if it has had to be enucleated—he is 18 per cent totally disabled. If the eye is blind but does not require enucleation, and it is normal in appearance, there being simply complete loss of vision, we rate it 16 per cent, recognizing a small difference of 2 per cent between the complete loss of the eye by enucleation and loss of vision. If the eye has been successfully operated on for cataract—that is, if the lens has been removed so that there is still the possibility of a fairly useful eye should he lose the other eye, a sort of reserve eye—we rate it 12 per cent, feeling that there is that slight difference between an eye that is totally blind and an eye of which it may be said there is still some reserve of usefulness. As we all know, however, that reserve is of very small moment, because until he loses the other eye he will not be able to use the eye from which the lens has been removed because it does not make up, as we say, with the good eye. Possibly one reason for the difference is that although he will not be able to use that eye from a practical point of view yet it does enlarge his field to some extent, so it is not quite right to say that it is absolutely of no present use to him. One word I wish to say as to the fractional figures we use. I think on this side of the line you use almost altogether figures such as 20/40, 20/60, 20/100, and so on—what we might speak of as the decimal system—in referring to the Snellen test card. A great many of our doctors in Canada do the same, but a great many use what we call the metrical system. I understand the continental schools use the metrical system, whereas the American schools use almost altogether the decimal system; but there is practically no difference, 6 meters being about 20 feet, and the fractions stated by the doctors using the metrical system are 6/12, 6/18, 6/36, 6/60, etc.; so when we speak of a 6/60 eye in metrical terms we are referring to a 20/200 eye in terms of the decimal system.

I am glad to hear Dr. Donoghue in his report criticize his own law, as he has done. He recognizes the weakness of that system. I have felt from my first study of the Massachusetts law that unless the administering board read into it a very liberal interpretation it would not give the injured man a square deal. I understand, however, the board has exercised a very liberal discretion in its administration and interpretation of the law, which in effect gives the injured man that compensation in respect to eye injuries to which perhaps a strict

reading of the law would not entitle him. Suppose a man has lost half the usefulness of his leg, or his arm, or his hand; I can not conceive of anybody being willing to deny that man compensation on the basis of at least half the loss of the limb mentioned. The eye surely is just as important a member as any the average man possesses. Of course, it is more important to some men than to others, depending upon the particular employment in which they are engaged; but I am firmly of the opinion that if a man has lost half the usefulness of his eye—I am not saying how we are going to determine how much loss there is, but assuming that we find that as a fact—he should be compensated accordingly. To say, however, that he must lose nine-tenths of the usefulness of the eye (which I understand is the Massachusetts law) before he is entitled to compensation is surely doing the man a great injustice. The tables referred to in the report, I suppose, had their inception in the tables, which were published and I think to some extent used a few years ago, sometimes referred to as the German tables and sometimes the Russian tables. Both of those jurisdictions published eye tables, and they were, I presume, in possession of and no doubt used to some extent by most of the commissioners here before the war. There is considerable similarity between the figures mentioned in the tables embodied in this report and the two tables to which I refer. We tried for a time, in our groping for light on this type of injury, to see if we could adapt the tables referred to, but we found, as Dr. Donoghue has stated, that they were altogether impracticable. I feel that if you attempt to reduce this question of eye injuries to a rule-of-thumb or fixed basis without putting common sense judgment into the particular circumstances in each and every case you are not going to do the man justice, nor are you going to feel satisfied yourself that you have fulfilled your duty as compensation commissioner. I feel that every eye case must be studied, taking into consideration all the difficulties which your eye specialist will bring to your attention in his report. Every complicated eye case—that is, every case of an eye the sight of which is less than totally destroyed but in which there is some remaining vision—should be referred not only to your own medical examiner but to an eye specialist who can thoroughly discuss it and give you light on the conditions which exist, and then it is up to the administering board to do justice to the man in the particular case. These are some of the matters which I felt deserved mention, and I do not know that I need add anything more, except that I would like to see this matter referred back to the medical committee, with the hope that before our next convention some steps can be taken to prepare a form which we might hope would be adopted to enable the boards to deal with these various eye cases.

The CHAIRMAN. The discussion will be continued by Dr. F. A. Bird, of the Washington Industrial Insurance Department.

Dr. F. A. BIRD, chief medical adviser, Washington Industrial Insurance Department. In beginning the discussion of Dr. Donoghue's report on eye injuries, I wish to call your attention to the fact that Dr. Donoghue referred to the table arranged by the Chicago Ophthalmological Society as being supererogatory, meaning something not required by duty or necessity; or, in other words, something more than duty requires. Now, under the Washington compensation act

this table represents exactly the intent of the law, because we are required to pay for the actual loss, and we do not wait until the vision is lowered to 1/10 of normal vision with glasses to begin to pay. In fact, under our act when the vision has reached 1/10 we have paid 9/10 loss of vision. Therefore, I do not consider the table arranged by the Chicago Ophthalmological Society to be supererogatory.

The Washington act does not take into consideration the occupation, the age, or earning capacity of any individual, but treats all industrial workers as one class. This, however, would not prevent us from using a standard table to work from. At the same time, other States having laws differing from ours, in that they begin paying only when vision is lowered to 1/10 of normal, and take into consideration the occupation, age, and wage, could likewise work from the same table as a basis.

Just recently it came to our notice that the Federal War Risk Bureau had under consideration the preparation of a table to be used in rating eye injuries under their jurisdiction. This table is now being considered by the United States, Canada, Great Britain, and France. It has been submitted to a number of high-class eye specialists for their criticism and recommendation. When completed it will represent the conclusions of some of the best men in the countries mentioned. It is very comprehensive and not too voluminous to be handled by a law commission after a standard examination has been made by a competent examiner, setting forth the conditions found. At present this table is not available, but considering the fact that there is no difference in economic effect between war injuries and industrial injuries, it seems to me that it would be very appropriate to investigate this table. I wish to quote in this connection part of a letter received from W. C. Rucker, chief medical adviser to the Bureau of War Risk Insurance:

MY DEAR DOCTOR: I am in receipt of your very kind and very interesting letter of August 17, 1920, relative to the rating of eye disabilities. It has been my thought all the time in working up this table that it was the primary duty of the Bureau of War Risk Insurance in carrying out the war risk act to prepare and adopt a very carefully worked-out schedule of impairment in earning capacities on account of various injuries and diseases. To this end a board has sat from time to time, first of all creating a table, and secondly in correcting it and improving it in the light of our experience.

Last spring I decided to ask the assistance of a considerable number of prominent specialists to pass upon the table which had previously been compared with the rating tables of Canada, Great Britain, and France. Greatly to my surprise practically all of the specialists whom we asked to help us regarded the request very seriously and sent in simply magnificent criticisms. We are still working on a rating table and hope before long to have it in pretty good shape. It was my idea to ask the Surgeon General of the Army and the Surgeon General of the Navy to adopt it for their respective corps, and when this was done we would recommend it to the Federal Employees' Compensation Commission, and the compensation commissions of the respective States.

In studying this question, I endeavored to secure such information as I could relative to the tables in use by the States. There was such a lack of uniformity, both as to basis and final conclusion, that the need of a standard table seemed to be very great.

I was struck by one great point of difference in a great many of the States as to how their law differs from the war risk insurance. In war risk insurance, the basis upon which the impairment is made is the average in earning capacity, rather than upon the actual impairment in earnings in the individual case.

You are at liberty to quote this letter at San Francisco, if you so wish, and I will be more than glad to confer with you or any other representative of the

respective commissions at any time, if you believe that such conferences will be to our mutual benefit. Certainly I believe that we could learn a great deal from the commissions in regard to this very important matter.

(Signed) W. C. RUCKER.

It might be well for the International Association of Industrial Accident Boards and Commissions to defer the adoption of a standard table of ratings until this table of the Bureau of War Risk Insurance is available, for it seems to me that if the Federal Government is going to adopt and accept a standard table of rating, it might be well for the commissions of the respective States to adopt the same schedule of rating as a standard, provided it meets with their approval. I have not seen this table personally, but Dr. J. W. Mowell, my associate in the service of the State of Washington, has gone over it carefully and informs me that it is more comprehensive than he thought a table could be arranged. It takes into consideration all conditions relative to the eye, and vision both central and peripheral, ocular imbalance brought about either by injury or disease, and has for its base the effect on loss of earning of an average person, not taking into consideration wage, occupation, or age.

The Washington commission has always considered 20/20 central vision indicates 100 per cent of visual efficiency and no loss of vision, and that 20/200 central vision indicates 9/10 loss of visual acuity. We always take into consideration any other condition relative to the eye or its adnexa, and require that the special examination upon which the rating is based show the following:

1. The condition of adnexa.
2. The macroscopic condition of the eye.
3. Muscular imbalance, if any.
4. The visual field, if other than normal.
5. The ophthalmoscopic findings.
6. A statement of the findings in the fundus and refractive media of the eye.
7. The uncorrected vision of both eyes and the refracted vision of both eyes; also an opinion as to whether the condition present is the result of accident, as claimed. If not, we require a statement giving an opinion of cause for condition present, if other than normal.

I am authorized by the industrial insurance commissioners of the State of Washington to state that they are very anxious to see a standard table of rating and a standardization of examination adopted by the International Association of Industrial Accident Boards and Commissions.

The CHAIRMAN. The subject will now be open for discussion by the members of the association.

Mr. HARRY A. MACKEY, chairman, Pennsylvania Workmen's Compensation Board. We recognize the necessity of the adoption of some table or standard, such as has been suggested. It seems to me a number of commissioners are in the same position in which we are. We must have some legislation first before a standard table can be available for the use of the court, for the purpose of determining the extent of disability and the corresponding amount of compensation. Recognizing the deficiency of our laws in that respect, at the last session of our last legislature I proposed some legislation on the

power of the board to pass on loss of vision, the compensation to be awarded according to the loss of vision; but our legislature did not seem to absorb the idea, and therefore we are left with our old provisions, which simply provide for 125 weeks or 60 per cent compensation for the loss of vision. I don't know how many States are working under that rather crude and unsatisfactory provision; but I am sure before our board in Pennsylvania would be sustained in the courts in the graduation of compensation for percentage of loss of vision we would have to have enabling legislation. Under our ruling we have two alternatives. We can grant compensation for the loss of an eye, for the loss of the use of an eye, but as between the actual loss of the use of the eye and a percentage of vision, we have no elasticity of judgment whatsoever. For instance, if a workman loses 50 per cent vision he goes back to his old occupation. We are powerless to award him anything for the loss of that amount of vision, unless the loss of vision sends him to some other employment; then he becomes a partially disabled man, and under the partial-disability clause we can award him partial disability. Therefore it seems to me that in Pennsylvania, and perhaps a good many other States represented here, we are in the same position many States are in regarding safety standards.

I was interested this morning in a very pertinent question asked in this respect, "What does this all mean, the establishing of a safety standard?" Uniform safety standards will mean nothing unless each board has power to create and adopt those standards, and power to enforce them in establishments. Some States, like Pennsylvania, would be powerless to adopt this very fine idea of the graduation of compensation awards proportionate to the loss of vision unless enabled to do so by the legislature. Therefore, it seems to me this body ought to suggest in the first instance the placing by each State of sufficient legislative authority in the courts to adopt such a standard.

The CHAIRMAN. Any further discussion?

Dr. F. H. THOMPSON, medical adviser, Oregon Industrial Accident Commission. The paper of Dr. Bird was very excellent. The Oregon and Washington laws, are, I think, practically identical. Under the Oregon system, the loss of vision has been estimated on the Snellen type of central vision, unless the examination revealed a contraction of the visual field, or some other condition which was to be taken into consideration. I do not believe with the commissioner from Wisconsin that the schedule they are working under is a fair or correct schedule to the injured workmen. It is true that a person may have an injury and yet have 20/20 central vision, and still have a defect of the eye. The object of estimating central vision is because that is the most acute vision you have, and probably the majority of eye injuries received affect central vision rather than the field of vision, and that should not be lost sight of in making the table to which all boards could conform. I agree with Dr. Bird that it is a very wise thing, probably, at least to give consideration to the table that is in compilation now by the Federal Government before adopting a table for all the commissions. I personally believe where a person has suffered an injury to the eye, however you arrive at the conclusion as to the degree of disability to that eye,

that he is certainly entitled to compensation for whatever degree of loss it is, the same as if it was a hand, or foot, or arm, or anything.

Mr. KONOP. If a man has lost his sight, we take all those facts into consideration, just like they do in Toronto. I do not want to be understood that we follow this tentative table strictly. Every case has to depend on the facts and particular conditions of the eye, and it would certainly be a very bad thing simply to follow these measurements of straight vision. We have had cases where a man has had 20/20 vision looking straight ahead, but has lost his field of vision, and we have allowed as high as 72 per cent. We take all those things into consideration.

Dr. THOMPSON. What I had reference to was, for instance, taking a 20/40 vision, provided other conditions are equal. Suppose the field of vision remains the same, and the man has by test, practically the only test you have for vision, 20/40; I say that man has lost one-half vision in that eye. He may be able to do the same work he was doing before, but he has lost one-half, and I don't believe it ought to be rated at one-tenth or one-fourth.

Mr. KONOP. I don't agree with you now. I believe the man has not lost one-half of his vision when he has 20/40. I think Dr. Donoghue's paper determines that. I can't believe that. But I think every fact of the situation should be taken into consideration. Just because a man has 20/40 distance vision, he has not lost half his sight. Every eye specialist will tell you that.

Dr. WILLIAM H. REGAN, of Boston, Mass. It is well to remember that all injured men are not truthful. It will be well to remember that, getting down to low fractions, you are going to pay out a lot of money unnecessarily. Secondly, that as a rule an injury to the cornea, or other part of the eye, is not corrected by glasses. Ninety per cent or more of the cases are from scarred tissue, they are depressions that a glass does not overcome. The defect is there primarily. You are leaving a great deal to the man's say-so. It all comes down to the question of opinion. The question of opinion, then, is how much interest the examiner is going to take in the man he is examining, what his connection is, what his pay is, who pays him.

The fields of vision, I think, are given fully all they deserve. Your field of vision for white is larger than for red or green. They are correspondingly lessened. You don't have any trouble seeing green; you don't have any trouble seeing red; they are perfectly bright and clear, down to an infinitesimal amount. White you see. White probably is less conspicuous to you than red or green. Your central vision is what you need to see with. Your eyes are made to rotate wherever you look. Your central vision takes in the object. You can not see distinctly; it is like a pacer to a racer, something to drive you on. When you are looking straight ahead, something impels you to go out there; your subconscious vision, you might call it, takes you on. The only difference when you lose the peripheral vision is that things might come quickly to one side and cause damage to your person without this part saying it is there. 20/40 vision depends altogether on what diminution is supposed to exist by regulations, and the extent—how much actual loss a man has. He might have a thin corneal scar directly over the central part of the cornea from an

acid burn or a caustic burn, that takes in simply the epithelial layer. Take that alone, and the cornea will regenerate over night. If you touch the second layer, you have a scar, and then it depends on how deep the scar is, and how opaque. With a thin corneal scar a man could see with 20/40 vision, he could make out a letter of that type; on the other hand, he could see as fully and distinctly as with his good eye, only the image would be blurred. The internal damage to an eye is of greater moment, as I see it. Whoever estimated, as we have in Massachusetts, 50 weeks at $10 a week for the loss of an eye, evidently was not thinking about his own eye at the time. I feel that more compensation should be paid for specific injuries, and more attention paid to the malingering end. It is very easy, especially in the Atlantic Coast States, where we have so many foreigners, to have malingerers. It is a common thing. As a matter of fact, I never examine a man without feeling my first test must be a malingering test, because it is seldom he will tell you anything about himself until you develop some optimism. And the only way you can test out this foreign element is by being an optimist and minimizing an injury. It is not good, though, for the health to tell a man his eye is going to be all right and have it go wrong.

Talking of visual acuity, from a cataract standpoint, in our State an eye is considered lost if a cataract develops from an injury. Some one has said a man gets certain vision afterwards, and he doesn't get full compensation for that eye. In my mind, an operated eye that can be corrected with glasses is worse if the other eye is in good shape. There is a condition where the clear light goes directly into the retina, causing photophobia, which causes the other eye to lose its function for near work and in depth much more than if the eye were taken out. As to interocular changes, such as thermic action on the retina, our great trouble is the light from the oxyacetylene gas. Many cataracts are supposed to be caused from that. It is well to consider the age of the patient when you get cataracts and distinct injuries placed on them. There is a peculiar little condition, which has been written of by one man, of injury to the nerve tunnel causing injury to the man's eye by operation on the cornea, which leaves no scar. That may be true, I have not seen it. I was in on a case that was brought out, and it came out afterwards that the fellow was working his eyelids, having got so he could do it nicely, thus causing hyperemia of the eye, and it looked red and photophobic at the time.

Mr. Robert E. Lee, chairman, Maryland Industrial Accident Commission. I am very much impressed with the thought given to the subject and the attempt made to have a definite table which can apply universally. I feel that is going to be, in the States at least, an extremely difficult problem. Of all the compensation laws in question, there are hardly any two alike, and yet each State thinks it has the best law. Consequently it would mean that we would have to have practically a universal compensation law before we could have a universal standard to govern any disability, and I believe that any standard that leaves out of consideration the character of the employment a man follows will be a faulty standard. If a man is a day laborer it may be all right when he is examined by an oculist to have that oculist say that he has 50 per cent loss of vision; but if a man follows a highly skilled mechanical trade that

requires acute vision it would not be a fair proposition to apply the same rule to him. I believe therefore we have to take into consideration the kind of employment the man follows, together with the injury that the medical experts give us to understand he labors under. And my own judgment is that we will be better off if we can have wider discretion placed in the hands of the commissioners, so that we can work these problems out from a common-sense and humane standpoint, than if we have everything enacted by legislation, and rules and tables established for us, thus making us carry out a purely ministerial duty and leaving us without any administrative duty. I believe it would have the effect of doing what compensation laws are intended to do, that they should be administered with common sense to relieve individual cases, according to the judgment of the men selected by the municipality to dispense justice in each case. I believe that discretion ought to be placed in the hands of the commission, and that there will follow in its wake a higher standard of commissionership in the different States.

I expect our law is about as defective as any law on the statute books. I don't know but what it is as much of a crazy quilt as anything that was ever handled, but taking it "by and large" our law works out about as well for the people it was enacted to benefit as any law I have heard of in the United States. For instance, I hear that Massachusetts has a splendid law. I believe it has; it has splendid people. Yet Massachusetts is satisfied to give a man 50 weeks at $10 a week for an eye; and then I think of poor little Maryland. We give $1,800 for the loss of an eye. They have done the best they can; we have done the best we can. In some things they have eclipsed us and in some things we have eclipsed them. You can not establish any universal rule, because Maryland would not accept $500 for the loss of an eye, and Massachusetts may not accept $1,800. They may be right; we may be wrong, but we have the man examined by a medical expert, and after he gives an estimate of that man's disability, after he tells us what his handicap is, we take into consideration his estimate, together with the character of employment the man follows, and believe under that system we have a more happy condition than we could have if the legislature could say to us, "Thus far shalt thou go and no farther."

I am glad to see the question come up, because it will open a discussion which I believe in the final analysis will work out for the benefit of all those interested in industrial insurance.

The CHAIRMAN. I think after we allow Dr. Donoghue to close the discussion we should proceed to the next subject. We can then discuss that subject, and if anyone wishes further to discuss this subject he can also do so at that time. Doctor, in your absence another compliment was conferred upon your Commonwealth, the fact that you gave 50 weeks for the loss of the sight of an eye.

Dr. DONOGHUE. I want to correct the idea that seems to be prevalent in the minds of some of the men, that we pay simply 50 weeks for the loss of an eye. We pay 50 weeks' specific compensation for the loss of an eye, or reduction of vision to 1/10 with glasses, but that's a little side line. We have a disability payment, consisting of two-thirds of the man's earning capacity while disabled and

until he gets back to suitable employment, and if he does not earn as much as he did before, two-thirds of the difference between his new rate and old rate. So, when you add all that together, when you add his disability payment of $500 to the other payments for a Massachusetts eye injury, it will be found that our payments will compare favorably, very favorably, with any State that pays on a table basis. I had that in mind, that our law was a disability law, with a specific payment, and I am somewhat skeptical about tabulating eye injuries on the basis of the partial disability of a man—total disability of a man—because most men with one eye can work and work properly when encouraged, and will work a great deal better when they are paid a specific payment than if paid upon the basis of their total or partial loss as men. It has been suggested that we wait for the War Risk Bureau to have the various departments at Washington agree upon a table. If the commissions wish to wait that long, I am perfectly willing to wait, or I am perfectly willing to proceed in this life and see what *we* can do.

I think the paper which I prepared has brought out a very good discussion, and I believe, in view of all the discussion, that the paper is well worth rereading and studying, because there has been no criticism upon the paper.

Mr. KINGSTON. I would like to make one observation as to what Dr. Donoghue said, speaking of the fact that they make disability payments in addition to the permanent partial allowance of $500. I think many of the States do the same thing and I know all the Provinces do. There are a few States, I know, that pay compensation for so many weeks for a lost eye, dating from the date of the accident, but I think many of the States pay for the healing period or during total disability in addition to the statutory number of weeks. This is as it should be, and I hope the time is not far off when every compensation jurisdiction will calculate the statutory number of weeks in these cases as from the conclusion of the healing period.

ROUND TABLE—SYSTEMS OF COMPENSATION FOR PERMANENT PARTIAL DISABILITIES.

The CHAIRMAN. The next subject, "Systems of compensation for permanent partial disabilities," is one of the most important and one of the most difficult subjects which can confront any commission. It confronts the commissions which have their State funds just the same as it confronts the commissions which do not, and I know you will all be interested in the discussion of this subject. The first discussion will be the California system, by A. H. Naftzger, who is one of the commissioners of the California board.

THE CALIFORNIA SYSTEM OF RATING PERMANENT PARTIAL DISABILITIES.

BY A. H. NAFTZGER, COMMISSIONER, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

When the California workmen's compensation, insurance, and safety act was in course of preparation, prior to January 1, 1914, the industrial accident commission decided to introduce a system of rating permanent partial disabilities that should be based on loss of earning power. The study that was made showed this to be a new and superior method, as compared to the plan of rating the injuries at so much per, regardless of the use of the lost or injured member prior to the accident.

To illustrate: If a bookkeeper loses a foot and a stevedore meets with a similar loss, more compensation is paid the stevedore, because he has to seek new employment, while the bookkeeper returns to his occupation without any reduction in wage-earning power. Another illustration will show how the California way balances. If the bookkeeper loses his right forefinger, and the stevedore suffers a like loss, more money is paid the bookkeeper, because his employment is more or less affected, while such a loss to the stevedore would not be serious, so far as his business is concerned.

In the California law the three main factors used in determining the percentages of permanent disability are: (1) Nature of the physical injury or disfigurement; (2) occupation; (3) age.

In preparing the schedule for rating permanent disabilities the California commission called into service experts from the staff of the University of California, one or two of whom were employed for several months, so that the schedule could have the advantage of scientific guidance. The outcome was beneficial to the plan in contemplation. A careful survey of the industries and the injuries that occur to those employed therein, with particular reference to the way each injury affects the individual in his work, aided in the collection of a mass of data that showed the wisdom of considering loss of earning power as the basis of rating.

A proper method of rating permanent disabilities adds much to the efficiency of a workmen's compensation act. The number of injuries resulting in permanent disabilities is a small percentage of the total number of injuries occurring, but the effect of such injuries upon the working population is very important in its result upon the loss of earning capacity and the cost of compensation insurance. The permanent disability is responsible for the creation of a class of permanently maimed and crippled workers who suffer a decrease in earning power through loss of a function or a part of the body.

Statistics compiled from the last report of the California Industrial Accident Commission show that the liability created by permanent disabilities exceeded the liabilities created by either fatal or temporary disability cases or the total cost of medical expense.

The difficult problem is determining the compensation benefits to be given in those cases where there is "partial" disability of a permanent nature. "Permanent total" disability presents a definite status which time will not change. Where there is maiming or other continuing limitation upon the earning capacity, questions arise as to the decrease of disability, the capacity for adjustment in the old employment, or the ability to acquire a new trade or to find employment of a different nature. Age, mental and physical aptitude, different effects of the identical injuries in different occupations, and differences in local opportunities for reemployment in a competitive labor market, are only a part of the factors that operate to render complex the problems arising in cases of permanent partial disability.

Many of the States have embodied in their compensation laws specific schedules of awards in terms of weeks or months for certain defined injuries. Most of these schedules are based upon physical loss only, and award varying amounts for the various injuries enumerated as causing permanent disabilities. These amounts are paid to all employees who sustain the same kind of an injury, irrespective of the employee's age and occupation. The ideal method is as nearly as possible to standardize each injury, having regard to age and occupation and the diminished ability of the injured workman to compete in the open labor market.

The amount of skill or experience required is a function, first, of the occupation, varying from no skill at all to the highest type of efficiency which requires an elaborate training or years of experience; and, second, of age, varying as the worker passes from an apprentice to the status of a skilled mechanic, or efficient worker of any kind of employment.

A disability in general is more serious the greater the age, for the reason that there is less power of accommodation and less ability to learn a new occupation in which the injured or lost member will not be so necessary. The degree of skill required to perform the work of a given occupation has a direct bearing on the requirements imposed upon the various parts of the worker's body. One occupation may require a great amount of physical use of some particular function; another may require no physical use of the same function.

The California schedule is based upon two theories: First, that permanent injuries should be compensated for, not upon the basis of loss of future earnings, but upon the loss of earning capacity; and,

second, upon the necessity of providing an adequate period for rehabilitation. A period for rehabilitation following a permanent injury is necessary for reeducation in a new line of employment or for learning new methods or technic in performing the requirements demanded by the old occupation.

A workman who loses a finger, or who has a disfigurement which hideously distorts the face, may suffer no loss in actual earning capacity by reason of his physical impairment, but he does lose in competitive ability. He must compete with healthy, 100 per cent workers; and although he may be physically able to perform the work equally as well as before the accident, he will have difficulty in obtaining a chance to work in competition with other workers in his class who are not injured. He will be the first to be laid off in times of business distress, and under certain circumstances he may be considered by the employer as constituting an exceptional risk under compensation laws.

It was the purpose of considering all these factors scientifically that led to the construction of the rating schedule in use by the State of California. As it is evident that the determination of the percentage of disability for the various combination injuries, ages, and occupations can be made in advance as easily as after the injury has occurred, it was decided for practical reasons to construct a schedule of permanent disability ratings to be used as a guide in determining the rating for any particular case.

The underlying theory of the schedule is that there is a certain standard occupation and a standard age which can be used as a basis in determining the percentage of disability caused by various injuries; that all other occupations can be rated in accordance with the standard occupation, depending upon the physical requirement and skill; and that the age of the injured person can be made a function of the standard age, based upon the diminished ability to rehabilitate himself as he becomes older.

The standard occupation is taken as that of an ordinary unskilled workman, and the standard age as 39. The occupation chosen makes an admirable standard because of the simple nature of the physical requirements placed upon the different parts of the body. Age 39 was taken as the standard age because statistical records at that time showed this age to be the approximate average age of persons injured in California.

The first problem involved the compilation of a list of permanent injuries and the determination of what should be the rating for each injury for the standard man. Information was secured from every possible source as to the benefits allowed for various injuries. A study was made of the benefits allowed in the schedules of other States and in foreign countries having compensation laws. Estimates were obtained from recognized medical authorities throughout the United States and medical directors of various insurance companies. A list of some 300 injuries was compiled, and a schedule of percentage ratings for the standard man was determined upon for each injury. The standard used for determining the ratio between various injuries was "the loss of the major arm at the shoulder joint." Rating given for this injury to a standard man is 60 per cent. Criticism might be made of the ratios between the ratings for

different injuries, but a study of the ratios in the schedules of other States shows an entire lack of uniformity, and the ratios used in this State are probably as correct as those used in any other State.

The list of injuries was divided, for the sake of convenience, into 21 groups, each group being designated by Roman numerals. Group I begins with injuries to the head, and Group XXI ends with injuries to the toes.

The next problem was the study and grouping of occupations. Investigations were made by a group of investigators who visited a number of typical industries throughout the State, making a study of industrial processes and the physical requirements of the occupations in each industry. Conferences were had with employers and with representatives of workmen's organizations, and a study was made of the by-laws and of the division of work among different crafts. The occupations were then correlated and assigned to a classification called a "form." The forms are 52 in number and were expected to give proper value to any group of functions, according to the physical requirement of the occupation. It has been found from experience that there are very few occupations which can not be readily assigned to one of these 52 forms. Probably 90 per cent of the occupations could be assigned to half this number.

To allow for the occupational variations for the same injury in the schedule there were constructed 17 rating tables, from A to Q, inclusive. This allows 17 possible variations of occupational requirement, but actually there is no injury group with more than 13 variations, and some have only 3 occupational variations.

Adaptability to a changed condition is dependent upon age. It was assumed that a boy of 15 has complete adaptability. He has not yet settled down in life, and if he is handicapped by reason of an injury from following one occupation he is young enough to learn another. A man of 75 years of age, on the contrary, was assumed to have no power of adaptability. He must do the work he has always done or not work at all. The power of adaptability between these two extreme ages was made a matter of computation in two-year periods. The age variation factor was computed from a formula, based upon the assumption that a 10 per cent disability at age 15 was equivalent to a 17½ per cent disability at age 75. The working out of this formula was necessarily limited by the fact that no injury could be rated for more than 100 per cent, nor less than zero, and a leveling off in the tables had to be made to allow for this limitation. This ratio of 10 to 17½ was determined upon after submitting the question to more than a score of medical authorities. For a 10 per cent disability at age 15 the average of the estimates at age 75 secured from these sources was 26 per cent. Our ratio, therefore, of 10 to 17½ at the respective ages of 15 and 75 is on the side of conservatism.

In order to determine the percentage of physical impairment in any particular case, it is only necessary to have given the nature of the physical injury and the age and occupation of the injured workman. By reference to the schedule the percentage is readily determined. Under the terms of the workmen's compensation act of California each 1 per cent of permanent disability up to 70 per cent is to be compensated for by payments of four weeks' compen-

sation at the rate of 65 per cent of his average weekly earnings. It is, therefore, both a percentage system and a schedule system.

Under a purely percentage system a 10 per cent impairment of earning capacity would entitle an injured man to 10 per cent of his weekly earnings for the remainder of his life. This method of compensation is to be criticized for three reasons: First, because of the overhead expense of keeping the account open for the remainder of a man's natural life with all the necessary bookwork which such a method would require; second, it would not compensate the injured man sufficiently during the time of greatest need—his greatest need of compensation is immediately following the injury and before he has readapted himself to his changed condition; third, it does not take into consideration the ability of the injured workman to rehabilitate himself and to increase his earning capacity to what it was before the injury.

For these reasons compensation, instead of being paid on a percentage basis, is paid during a definite period of time and then terminated, depending upon the percentage of permanent disability. It is considered that this period of time will in the average case be amply sufficient for the purpose of rehabilitation. For example, if a man has a 10 per cent disability it is considered that at the end of 40 weeks he will have accommodated himself to his injury and will have regained his old standard of earning efficiency.

But not all of those who are injured will be able to reestablish an earning power. The workmen's compensation, insurance, and safety act of California provides that the loss of both eyes or the sight thereof, the loss of both hands or the use thereof, total paralysis, incurable imbecility, or insanity, shall be regarded as involving a 100 per cent permanent disability. Any scheme of compensation that does not provide a life pension for such persons is inadequate and only puts off the fatal day when such persons must become charges upon public or private charity.

It was found by investigation that the average workman spent approximately 40 per cent of his earnings upon himself and 60 per cent upon his family. Now, one who is by injury made totally and permanently disabled is, so far as his family is concerned, dead. Therefore, it was thought fair to allow compensation at the rate of 65 per cent for 240 weeks, which would be equal to a death benefit, and thereafter to allow a life pension to the injured workman for his own support. It was considered that in the case of a person who has lost 70 per cent of his physical efficiency he has 30 per cent of earning power left, and therefore would need only a 10 per cent wage pension for life to make out the 40 per cent necessary for his support. For the person 80 per cent disabled it was assumed that he would need a 20 per cent life pension in addition to the 20 per cent of earning efficiency therefor and for 90 per cent disability a life pension of 30 per cent. If the disability be total and permanent the injured person requires 40 per cent of his average weekly earnings to provide for himself for the remainder of his days. The California schedule was based upon the foregoing assumptions and conclusions, and we may say that it has given satisfaction so far.

The actual work of administering the permanent-disability rating schedule is intrusted to the permanent-disability rating department in charge of a rating expert and a medical examiner. This depart-

ment rates on an average of 2,000 cases a year. The ratings are ordinarily made upon the information contained in the injured workman's application for rating and the doctor's reports filed with it.

For the purpose of checking the reports they are reviewed by an assistant medical director in Los Angeles and San Francisco. The purpose of this control by the medical examiners is threefold: First, to see that the case should not be sent in for rating until such time as the physician in charge of the case has decided that it has reached a permanent stage and that further improvement is not to be expected, either through treatment, surgical procedure, massage and manipulation, or various therapeutic methods, or by use; second, to see that the disability described in the reports includes all the disabilities arising from that injury; third, to see that the description of the disability is definite and adequate enough for purposes of rating. This control is accomplished directly by examination by the assistant medical director in the San Francisco office and by the assistant medical director in the Los Angeles office. When a report is submitted a letter is sent to the injured man, if within a reasonable distance, asking him to call for examination, and the report of the attending physician is either approved or a supplemental report made.

In those cases too far away from our offices for personal examination, cards are sent to the injured men giving them a description of the injury as described by the reporting physician. The injured workman is asked to describe in his own words the nature and extent of the permanent disability. Where there is a discrepancy between the injured man's statement and the doctor's statement, the doctor is then asked for definite information on the point at issue.

When the case has been approved for rating by the medical director it is referred to the rating expert to determine the proper percentage of permanent impairment. The case may be rated directly from the schedule. Most of the time it has to be rated by approximation on the description of the most similar injury given in the schedule. Most of the latter classification can be rated by precedent. Some cases, however, require the exercise of considerable judgment and these cases are referred to an advisory rating committee of three members, one of them representing the medical department. The original of the letter, stating what the rating is, is sent to the insurance company or employer paying the compensation, and a copy is sent to the injured man.

It has not been found advisable to encourage employers and insurance carriers to apply the rating schedule without being viséed by the rating department of the commission. There exists a margin of discretion in most cases, resulting from a consideration of the nature and extent of the injury.

When dissatisfaction exists with the rating made by the schedule it is usually because of an inaccurate statement of the nature of the injury. For this reason a statement should be made by a competent and painstaking surgeon, or else checked by one of our assistant medical directors.

The value of the schedule in determining controversies may be gathered from the fact that there were some 2,000 cases rated during the last year and not over 2 or 3 per cent of the ratings made in-

formally by the rating department have been appealed to the commission for formal adjudication by the introduction of testimony. The degree of disability in each of these cases, involving the effect of age and occupation, as well as the nature of the injury, would have required hundreds of hearings at great cost, and would have cost the parties concerned thousands of dollars in litigation expense.

The CHAIRMAN. The next discussion will be on the Federal system, by Charles H. Verrill, commissioner, United States Employees Compensation Commission, of Washington, D. C.

COMPENSATION OF PERMANENT PARTIAL DISABILITIES UNDER THE FEDERAL COMPENSATION ACT.

BY CHARLES H. VERRILL, COMMISSIONER, UNITED STATES EMPLOYEES' COMPENSATION COMMISSION.

The Federal compensation act was passed September 7, 1916, becoming effective on that date. The commission, however, was not organized until late in March, 1917, so that the actual operation of the act was delayed until that date. The committee of experts that drafted the bill which, with slight changes, became the present law believed they had prepared "probably the best law in the world," one which would serve as a model for future State legislation. The committee in drafting the law had studied the compensation laws not only of the various States but of all foreign countries, with the purpose of working out a model law suited to the conditions of this country, and especially to the conditions of Federal employment. The Government establishments to which the law was to apply represented a comparatively stable force of employees likely to grow in number slowly and steadily through a long period, a condition especially favoring the maximum return to Government employment of a large percentage of those permanently disabled but able to follow some occupation.

When the law came into operation those favorable conditions which the drafting committee saw no longer prevailed. All Government establishments were rapidly expanding because of the demands of the war; new establishments were being created; old establishments were rapidly increasing their employees; many men were employed at occupations with which they were not familiar; not a few were employed regardless of physical defects and of some of the infirmities of age. With the end of the war a reduction in Government activities and employment has resulted, and the force will gradually return to perhaps one-half its maximum number. As a consequence, however, of the conditions of employment which have prevailed during the past three years, the Federal compensation act has been applied to conditions which were unforeseen and which were not considered when the act was drafted. The experience of these years can hardly be considered a fair test of its applicability to normal conditions. All this must be borne in mind in judging whether the law in practice provides adequate compensation for permanent partial disabilities.

The Federal compensation act provides for compensation in the case of permanent partial disabilities—

(1) During total disability, compensation at the rate of two-thirds of the wage at the time of injury, with a maximum compensation of $66.67 a month.

(2) During partial disability compensation at the rate of two-thirds of the difference between the monthly pay at the time of the

injury and the monthly wage-earning capacity after the beginning of partial disability. For determining earning capacity the commission may require the employee to make affidavit from time to time as to his earnings.

(3) If a partially disabled employee refuses to seek suitable work, or refuses or neglects to work when suitable work is offered, no compensation can be paid during such period of refusal.

(4) The wage at the time of injury in all cases controls the rate of compensation, except for minors or persons employed in a learner's capacity, for whom an increase may be assumed from time to time according to the probable increase in wage-earning capacity. Also, in the case of aged claimants a decrease may be assumed after a time, based on probable decrease in wage-earning capacity.

The basis of the compensation under this law in the case of permanently partially disabled employees is, then, decrease in earning capacity as compared with wages at the time of injury. In practice the permanently disabled employee is considered entitled to monthly compensation as long as there is loss of wages due to injury. If there is no wage loss, no compensation is paid even though there be a serious permanent disability, such as the loss of a hand, a foot, or an eye. The mere physical result of the injury is not compensated, since there is no provision for the payment of a fixed amount or for fixed periods in case of dismemberment or other permanent disability.

Earning capacity has been construed by the commission variously according to the circumstances of the individual case. As a general rule, if the employee is or has been working, his actual wage is taken for the purpose of determining the current disability compensation. This rule has been applied to the great majority of cases. If the employee is deemed able to do some work but has failed to secure it after a reasonable time, then the present earning capacity has been estimated by the commission, taking into consideration all of the circumstances. This applies to a very few cases only. If, in the judgment of the commission, a lump-sum settlement is best in the interest of the employee or for administration reasons, then necessarily earning capacity has been estimated according to the commission's judgment of the probable average earning capacity during life, taking into consideration all of the circumstances. This method, also, has been applied to a very few cases only.

The theory upon which this type of law seems to be based, as applied to employees of the Federal Government, is that the employee, if having a permanent partial disability, will probably be taken back at his former place of employment, and in his former occupation, or will readily be placed in another occupation, and that his earnings from time to time can be easily ascertained. If it were possible in all cases, or in the majority of cases, for the employee when having a permanent partial disability to be assigned to the kind of work best suited to him at his former place of employment and given full opportunity to advance, this theory of the law might work out satisfactorily. Before the war, when Government employment was comparatively stable and a very large proportion held positions under a tenure continuing during efficiency, and during the war, when the demand for labor was greatly in excess of the available supply, many permanently disabled employees were returned to employment without difficulty. At that time crippled and elderly and somewhat in-

firm employees obtained positions without difficulty because there was not a sufficient labor supply of able-bodied men. With rapidly diminishing Government employment, it is now much more difficult to place Government employees when disabled, and the difficulties will increase as employment continues to diminish.

In the case of some disabilities and some occupations, reemployment is difficult if not impracticable. The unskilled workman, as the common laborer or longshoreman, of limited intelligence and with a serious foot or leg disability, is very difficult to place, as the number of possible jobs suitable for such cases is very small, with an oversupply of applicants even without considering those disabled by accidents of employment.

Another example of the disabled man difficult to place in Government work is the letter carrier who has been for years in carrier service and suffers a serious foot or leg disability. It is not always possible to place him at a desk or a sitting job, especially if attached to a small office. The structural-iron worker with a foot or leg disability can not be placed at his former occupation, as such a disability makes him unfit for a job which requires climbing, and there are practically no jobs in the trade which do not. In this trade any serious fall, even if not followed by a permanent disability, is said to make a man useless for future work, as he loses his confidence and the nerve which is essential above anything else.

The law, in basing compensation upon wages at the time of injury, seems to make an assumption that the permanently disabled employee, unless a minor or learner, could not expect to improve his wage or occupation; that the unskilled laborer would always remain unskilled; that the skilled laborer would never advance in wage. This, of course, assumes a limitation of opportunity wholly inconsistent with American experience, as the average man or woman increases his earnings up to 35 and often up to 40 years of age.

A law of this type is incomplete and inadequate to meet the demands of justice and good public policy unless supplemented by provisions for training the employee when taken back (placement training) or for vocational reeducation. Such a provision, if reasonably liberal, would give the employee an opportunity to advance in spite of permanent disability, and in some cases at least would open up opportunities beyond the wage rate and beyond the thought of the employee before the occurrence of his disabling injury.

A table printed at the end of this paper shows for all dismemberments and other permanent partial disabilities which had been closed by December 31, 1919, the average duration of compensation and the average amount of compensation paid. It must be borne in mind in considering these figures that under this type of law it is not possible to say that any permanent disability case is ended until it is closed by a lump-sum settlement or by death.

The merits and imperfections of the law as applied in practice will best be understood by an examination of a number of illustrative examples. These examples have been chosen to show how the law has worked when applied to a variety of serious cases.

Case 38206 is an amputation of the right hand just above the wrist joint, the result of a crushing injury while working under an elevator. The employee, a fireman laborer, 46 years of age, was at the time of injury, September 30, 1918, employed in a Government building at $55 a month. A period of total disability for work of 30

days resulted, during which the employee was allowed leave with full pay, returning to his former work at his regular rate of pay. In consequence, he was not entitled to any compensation for loss of wages or for the permanent disability. The medical and hospital expenses, including an artificial arm and the cost of procuring the artificial arm, amounted to $243. As the employee seems to have been able to perform the duties of his position, it is probable that he will never be entitled to claim further compensation from the commission, except for the repair and replacement of the artificial arm.

Case 73387 is an amputation of the leg half way between the knee and ankle. The employee, a clerk engaged in office work in the Postal Service, was totally disabled for 63 days following his injury of May, 1920. He received leave with full pay for 24 days and was then paid compensation for 36 days' loss of wages in the amount of $80. He returned to the same work and the same rate of pay as at the time of injury, after which no compensation was paid. The cost of medical and hospital service was $291.60, not including the cost of an artificial leg of $100. The case is one where, on account of the kind of work and the long period of the employee's service, it is unlikely that there will be any further disability for which compensation will be claimed. The negligence of a third party, a railroad company, was the cause of the accident, and a demand accordingly was made upon the railroad company for damages, and a settlement was secured by the payment to the employee of $3,500. Under the provisions of the compensation act the employee, in view of this payment, must reimburse the commission for benefits received and will not be entitled to receive any compensation from the commission or any medical and hospital services until compensation at the regular rate and medical and hospital services had been due the employee for an amount sufficient to exhaust the sum recovered by him from the railroad company.

Case 13754 is an amputation of one joint of the ring finger and two joints of the middle finger of the left hand. The employee, an unskilled laborer, 43 years of age, was at the time of the injury, October 26, 1917, employed in a Government establishment at $65 a month. The period of total disability for work, 29 days, resulted in compensation amounting to $37.55 and medical and hospital expenses amounting to $43. The employee then returned to work in the same establishment and at the same rate of pay, whereupon compensation terminated. The employee, while at the time of injury working temporarily as an unskilled laborer, had given up his trade as a cigarmaker for this Government employment out of a desire to assist in time of war. He was also a violinist and had made a practice of playing after regular working hours in an orchestra, thereby earning an average of $300 a year. The amputation of two fingers of the left hand made it impossible for him to follow either his regular trade of cigarmaker or his auxiliary occupation of violinist.

Case 42252 is an amputation of the leg above the knee; the employee, a colored boy 17 years of age, was at the time of injury, September 30, 1918, a laborer at Muscle Shoals, Ala., at $2.40 a day. After a total disability period of 97 days and later of 24 days he was reemployed at the same work with somewhat increased pay, during which time no compensation was paid. After working for the Government in this position for 165 days his work terminated and, being unable to secure work, he then received total disability compensation for a period of 127 days, amounting to $387.20. Employment which he was able to secure was then irregular and compensation was again paid for a period of 167 days, to the amount of $215.53. From this time regular work was secured as a laborer in private employment and compensation ceased. Medical and hospital treatment was furnished by Government physicians and in a Government hospital without any charge against the compensation commission. An artificial leg was furnished at an expense for the leg and transportation to secure the leg of $116.98.

Case 69446 is an amputation of the left arm just above the wrist. The employee, a boiler maker, 29 years of age, was at the time of injury, February 5, 1920, employed in a Government navy yard at $6.40 a day. A period of total disability for work of 204 days resulted, during which $440 compensation was paid. The employee returned to work for a few days at the same rate of pay as formerly, and then was given a job as acetylene welder learner at $4.32 a day. While at this work he receives $28.26 a month compensation for loss of wages as a permanent partial disability, but expects full rating as a welder in about nine months. Medical service was by Government physicians and hospital expenses cost $66, not including cost of artificial arm and hook.

Case 34915 is an amputation of the fingers of the right hand, except the index finger and the thumb, the amputation including a part of the metatarsal bones. The employee, 24 years of age, was at the time of the injury, September 23, 1918, employed as a skilled laborer in one of the munitions plants of the War Department at $3.25 a

day. As the employee was engaged on inspection work, he was absent from work only four days, compensation being paid for one day, amounting to $2.17. From that time to the present the employee has been employed in various positions under the War Department, receiving a rate of pay somewhat higher than that at the time of injury. For this reason no compensation has been paid except for a single day shortly after the injury. The employee has now been informed that his work will terminate September 30. The medical and hospital expenses in connection with this case amounted to $43.50. The employee, upon learning that his employment would terminate, made inquiry in regard to the possibilities of vocational training, the matter having been called to his attention not long after his injury. An inquiry discovered that a course such as he desired in automobile repair work could be secured in a Rhode Island institution with free tuition, and arrangements have accordingly been made for such a course. During the period of vocational training the employee will be rated and compensated as a temporary total disability case. No additional money allowance can be made, however, because of the expenses incident to the vocational training. As the limit of compensation is $66.67 a month, and as the employee has a dependent wife and child, a long period of training would not be possible under this arrangement.

Case 27192 is an amputation of the leg half way between knee and ankle. The employee, 32 years of age, was at the time of the injury, May 13, 1918, working as an oiler on an Army transport at $75 a month, plus subsistence at $21 a month. A total disability period of 210 days followed, 6 days of which were paid as leave, compensation to the amount of $294.63 being paid for the remaining days. He then worked in private employment 16 days and no compensation was payable. He was then unable to secure work and was compensated for 68 days, receiving $144.84. A period of employment without compensation then followed for 441 days, followed by total disability because of inability to secure employment of 101 days, receiving compensation of $211.20. The first medical and hospital treatment was given in an Army hospital, for which no charge was made against the commission. Afterwards medical and hospital services and an artificial leg were furnished, costing $297.

This employee, through a misunderstanding because at the time of injury employed on an Army transport, was authorized to begin vocational training as a beneficiary of the Federal Board for Vocational Education, but the allowance from the Federal Board for this vocational training was terminated when an investigation disclosed that the claimant was a civilian employee. He then applied to the Compensation Commission for some arrangement which would permit him to continue his vocational training. An investigation showed that he desired training as a mechanical engineer, that he had had the necessary preparatory work, and had made a beginning at the course so that the work could probably be completed in two and a half years. He had also won in a competitive examination a scholarship entitling him to free tuition. He was found to be a person of such character and habits that a lump-sum settlement could be made with confidence that the payment would be used for the purposes for which it was intended. A lump-sum settlement was accordingly made on the basis of a 50 per cent disability, the payment amounting to $6,562.56.

Case 36821 is an amputation of the second, third, and fourth fingers of the right hand, with an ankylosis of the thumb and the finger in a flexed position, so that the hand was considered practically useless. The employee, 34 years of age, was at work as a machinist in a navy yard at the time of injury, September 25, 1918, at $5.36 a day. After a total disability period of 55 days, compensation amounting to $113.34, he was reemployed at the navy yard at $5.92 a day at machinist's work which he could readily do. A transfer of work resulted in dissatisfaction, indifference, and inefficient service, and he was in consequence reduced to the position of a machinist's helper at $4.64 a day. He thereupon resigned his position at the navy yard, being apparently dissatisfied because he had not been advanced in grade along with some other machinists, as he believed would have been done had he not sustained an injury. Following his resignation he did not claim compensation for some months, and all the circumstances were not reported to the commission. Under the provisions of the law, the employee at this time was not entitled to compensation in view of the fact that he had refused suitable work when furnished. Some six months later he applied for a lump-sum settlement, stating that he had been unable to secure anything but the most irregular work at a low wage, while able-bodied men at his trade were receiving $7 a day or more. Definite information as to the amount of work performed and the earnings was not furnished, although demanded. While compensation was not payable following the refusal to continue at work in a position offered at the navy yard, it appeared to the commission that the continuance in such employment as a machinist with a useless right hand could only be temporary, and that any attempt to secure

private employment would result in extremely irregular work and low wages, calling for the payment of permanent partial disability compensation for an indefinite period. As the special purpose of the employee's request for a lump-sum settlement was in order that he might establish himself in business, in automobile repair work, at which he had had experience and for which he had some qualifications, a lump-sum award was made on the basis of a 50 per cent disability, the settlement calling for the payment of $6,763.94.

Case 4607 is a case of bilateral flat foot, resulting from a fracture of the os calcis of both feet, due to a fall on a cement floor. Amputation of one foot to improve condition was advised, but not accepted. The employee, 39 years of age, was a laborer at the time of injury, March 19, 1917, in a Government naval station at $60 a month. Because of several operations and unusual conditions, total disability compensation was paid for 1,122 days, amounting to $1,565.79. The employee, because of lack of any qualifications for skilled labor, and the degree of disability, could not secure employment. The employee's wife, because of the low rate of compensation ($40 a month), and lack of any resources, endeavored to supplement such compensation by working, and developed tuberculosis. Application was made for a lump-sum award in order that the employee might establish a restaurant and cigar stand. His qualifications for such an undertaking were only fair and settlement was at first refused. It appeared, however, that continued refusal and an insistence on continuing compensation at $40 a month imposed a standard of living which gave the wife no chance of recovery and allowed the employee himself merely to maintain existence. It was considered that a lump-sum award would give the employee a chance to make good and the wife a chance of recovery, and if eventually expended or dissipated, the wife would by that time have improved, or if not, would have died, and the employee would stand a better chance of earning at least a living. A lump-sum award was accordingly made on the basis of a 60 per cent disability, amounting to $4,448.45. Medical expenses of $281.91 were paid. Medical treatment was in Government hospitals a part of the time, but not at the beginning.

Case 71898 is an infection of the right index finger, resulting in a straight, stiff finger. The employee, a young woman of 22, was at the time of the injury, February 10, 1919, employed as a kitchen helper with the Army in France at 7.50 francs a day plus 6 francs for subsistence. A period of total disability of about eight months resulted, during which the employee was cared for in a hospital in France. Total disability compensation was paid during this period. When discharged from the hospital as recovered the employee married and came to this country to live. She did not desire to enter wage-earning employment, but preferred to remain at home and do the work of her own household. A lump-sum award was accordingly made on the basis of 8 per cent disability.

These examples strikingly illustrate certain respects in which the law is in some instances inadequate to satisfy the demands of justice. These may be briefly enumerated as follows:

(1) Compensation is based on wages at the time of injury. Thus the law does not authorize any allowance to be paid for—

(*a*) Increases in wages which come to all other workers due to changes in cost of living and general wage advances. (See case 4607.)

(*b*) Increases in wages which every worker of average capacity may expect to continue up to 35 and even to 40 years of age, or later. (See case 34915.)

(*c*) Increases in wages which the worker injured in a casual or temporary occupation at a low wage would receive if he could return to his usual one. (See case 13754.)

(*d*) The loss which a worker suffers when injured so as to result in complete disability for an auxiliary occupation which may have been of decided economic value to him. (See case 13754.)

(2) The law penalizes and tends to discourage improvement by reducing compensation as earnings increase. It does this although putting the whole burden of reeducation or improvement upon the employee himself.

(3) No provision is made for vocational training. (See cases 34915 and 27192.)

(4) No compensation is paid for bodily injury. (See case 38206.)

(5) Determining loss of earnings, especially with irregular and shifting employment, is attended with great practical difficulty.

(6) The cost of administration will necessarily be high because of the necessity of following up and investigating many cases of permanent partial disability.

(7) As a result of the difficulty of following up cases and a lack of understanding of rights on the part of the employee, a considerable number will fail to make claim and to secure their rights.

(8) The system will tend to keep the thought of the possibility of securing further compensation always before the mind of the employee—an undesirable and harmful influence.

The time during which total disability compensation has been paid up to the present time has probably been unduly long, longer than it should be when the number of casual and aged workers is reduced and when Government establishments have returned to normal conditions of employment.

It is believed that the most serious defect of the compensation law at the present time as applied not only to permanent partial disabilities but to all awards is the low maximum rate of compensation fixed in 1916, and no longer sufficient to meet the necessary expenses of living. In temporary disability cases the present rate of compensation does not meet more than 40 per cent of the wage loss due to injury, considering all classes of employees, and not more than one-third of the wage loss of classes of skilled employees, such as workmen in navy yards and in the Postal Service, for example, two services which contribute a very large proportion of the total number of compensation claims. The hardships of present conditions would be greatly relieved if the law could be amended so that the basis of compensation would be the wage which the employee would have received if he had continued to be employed instead of the wage at the time of injury, and if the maximum compensation which may be paid was fixed at $120 a month, or even $100 a month, instead of at $66.67 per month as under the present law.

PERMANENT PARTIAL DISABILITIES, BY LOCATION OF DISABILITY, OCCURRING SEPT. 7, 1916, TO DEC. 31, 1919, AND CLOSED BEFORE DEC. 31, 1919.

DISMEMBERMENTS (including surgical amputations).

[In cases where lump-sum settlement has been made the wage loss given here covers only the period for which monthly compensation was paid before lump-sum settlement.]

Member.	Number of cases.[1]		Average days duration.	Award.	Average award.		Wage loss, all cases.	Number of non-compensated cases.
					All cases.	Cases of infection.		
Eye	*10*	43	75	[2] $6,955.74	$161.76	$299.32	$10,154.97	4
Breast	*1*	1	77	157.80	157.80	157.80	332.64	.....
Left arm at shoulder	*1*	3	359	[3] 7,574.17	2,524.72	42.47	3,861.26	.....
Right arm at shoulder		1	.....	[4] 3,193.47	.....	.....	.....	.....
Left forearm		1	548	800.17	800.17	.....	1,304.24	.....
Right forearm		1	76	137.03	137.03	.....	197.38	.....
Left hand, not otherwise classified		5	167	1,605.54	321.11	.....	2,574.49	.....
Right hand, not otherwise classified		11	143	2,984.92	271.35	.....	5,533.19	1

[1] Italic figures at left of column show number of cases of infection.
[2] Including lump-sum settlement of $2,045.27.
[3] Including lump-sum settlement of $6,802.73.
[4] Lump-sum settlement.

PERMANENT PARTIAL DISABILITIES, BY LOCATION OF DISABILITY, OCCURRING SEPT. 7, 1916, TO DEC. 31, 1919, AND CLOSED BEFORE DEC. 31, 1919—Continued.

DISMEMBERMENTS (including surgical amputations)—Concluded.

Member.	Number of cases.		Average days duration.	Award.	Average award.		Wage loss, all cases.	Number of non-compensated cases.
					All cases.	Cases of infection.		
Left thumb, not otherwise classified		1	91	$159.58	$159.58	.....	$247.52	.....
Right thumb, not otherwise classified		2	29	113.34	56.67	.....	336.80	.....
Left thumb, distal phalanx	3	35	30	1,580.01	45.14	$107.41	3,254.66	5
Right thumb, distal phalanx	8	36	53	[5] 4,588.39	127.46	337.03	7,804.09	5
Left thumb, proximal phalanx		6	45	354.00	59.00	.....	666.78	2
Right thumb, proximal phalanx		13	36	824.52	63.42	.....	1,522.57	1
Left index finger, not otherwise classified	2	5	46	397.81	79.56	110.01	1,049.49	.....
Right index finger, not otherwise classified		6	47	510.79	85.13	.....	1,182.92	.....
Left index finger, distal phalanx	7	57	29	2,612.89	45.84	102.06	5,676.90	12
Right index finger, distal phalanx	6	81	36	4,779.01	59.00	102.92	9,682.18	12
Left index finger, middle phalanx	1	7	50	607.29	86.76	75.56	744.91	.....
Right index finger, middle phalanx	2	19	31	813.93	42.84	83.27	1,513.12	3
Left index finger, proximal phalanx	1	17	39	1,148.13	67.54	351.26	2,272.46	3
Right index finger, proximal phalanx	7	21	84	3,082.19	146.78	265.97	5,706.66	1
Left middle finger, not otherwise classified	1	3	46	166.12	55.37	44.45	427.68	.....
Right middle finger, not otherwise classified	1	1	157	335.37	335.37	335.37	468.00	.....
Left middle finger, distal phalanx	1	60	26	2,447.01	40.78	142.23	5,580.30	12
Right middle finger, distal phalanx	3	77	37	4,481.37	58.19	211.67	10,280.92	13
Left middle finger, middle phalanx	1	14	35	889.90	63.56	57.34	1,784.26	1
Right middle finger, middle phalanx	2	13	37	799.06	61.47	76.83	1,558.68	2
Left middle finger, proximal phalanx	1	8	67	811.56	101.45	145.00	1,306.69	2
Right middle finger, proximal phalanx	4	7	54	574.10	82.01	120.91	1,120.39	1
Left ring finger, not otherwise classified		1	67	140.01	140.01	.....	343.20	.....
Left ring finger, distal phalanx	3	27	38	1,318.67	48.84	79.73	3,214.97	5
Right ring finger, distal phalanx	4	35	33	1,990.23	56.86	100.23	3,319.07	6
Left ring finger, middle phalanx		6	54	588.65	98.11	.....	1,418.74	2
Right ring finger, middle phalanx		5	39	217.41	43.48	.....	612.76	1
Left ring finger, proximal phalanx		6	31	347.02	57.84	.....	573.16	.....
Right ring finger, proximal phalanx	2	6	60	589.58	98.26	183.84	939.13	.....
Right little finger, not otherwise classified		1	48	100.00	100.00	.....	276.48	.....
Left little finger, distal phalanx		31	21	997.26	32.17	.....	2,418.67	9
Right little finger, distal phalanx	2	31	27	1,252.21	40.39	100.72	2,479.27	8
Left little finger, middle phalanx		8	33	423.83	52.98	.....	754.03	1
Right little finger, middle phalanx	1	11	42	481.16	43.74	8.00	935.79	3
Left little finger, proximal phalanx	1	8	36	374.09	46.76	75.56	655.10	1
Right little finger, proximal phalanx	2	15	62	1,172.31	78.15	15.58	2,589.13	2
Left thumb and one finger		5	63	521.44	104.29	.....	951.72	.....
Right thumb and one finger		7	41	453.28	64.75	.....	877.53	1
Left thumb and two or more fingers		5	50	435.16	87.03	.....	869.76	.....
Right thumb and two or more fingers		7	80	1,007.03	143.86	.....	1,611.93	1
Left two fingers	2	32	43	2,370.47	74.08	103.07	5,275.35	1
Right two fingers		52	48	4,036.65	77.63	.....	7,628.16	7
Left three fingers		6	45	501.10	83.52	.....	1,053.68	.....
Right three fingers		11	65	978.40	88.95	.....	1,714.34	1
Left four fingers		6	56	614.24	102.37	.....	1,363.21	.....
Right four fingers		8	105	1,292.64	161.58	.....	2,133.93	.....
Thigh	3	5	175	[6] 4,643.12	928.62	1,301.51	2,550.92	.....
Leg	1	7	257	[7] 8,433.80	1,204.83	527.46	6,120.46	1
Foot, not otherwise classified	1	3	267	1,629.24	543.08	919.80	2,564.11	.....
Metatarsals		1	240	524.48	524.48	.....	1,195.00	.....
Great toe, not otherwise classified	3	9	90	1,514.61	168.29	367.43	4,229.86	.....
Great toe, one phalanx		5	46	440.06	88.01	.....	971.30	.....
Great toe, more than one phalanx		2	65	217.33	108.67	.....	611.24	.....
Lesser toe, not otherwise classified	3	15	69	1,737.09	115.81	59.44	2,869.61	.....
Lesser toe, one phalanx	2	4	41	250.68	62.67	84.17	480.19	.....
Lesser toe, more than one phalanx		1	81	173.34	173.34	.....	298.08	.....
Great toe and lesser toe or toes	1	12	75	1,365.60	113.80	209.33	2,496.76	1
Two or more lesser toes	5	11	67	1,199.13	109.01	292.38	3,188.22	.....
Total	100	961	.....	99,838.75	.....	.....	159,769.71	131

[5] Including lump-sum settlement of $2,018.63.
[6] Including lump-sum settlement of $3,455.14.
[7] Including lump-sum settlement of $6,248.12.

PERMANENT PARTIAL DISABILITIES, BY LOCATION OF DISABILITY, OCCURRING SEPT. 7, 1916, TO DEC. 31, 1919, AND CLOSED BEFORE DEC. 31, 1919—Continued.

LOSS OF FUNCTION.

Member.	Number of cases.	Average days duration.	Award.	Average award.		Wage loss, all cases.	Number of non-compensated cases.
				All cases.	Cases of infection.		
Brain	2	85	$345.95	$157.98	.....	$500.68	.....
Eye	*20* 99	67	[8] 19,820.28	200.20	$43.36	27,060.25	7
Both eyes	4	16	14.17	3.54	.....	39.87	2
Internal ear	4	38	189.34	4.74	.....	460.96	.....
Internal ears, both	1	18	.....	.....	.....	9.84	1
Jaw	*1* 1	8	11.11	11.11	11.11	38.40	.....
Skull	3	188	[9] 5,475.44	1,825.15	.....	2,419.68	.....
Nose	*1* 1	162	353.35	353.35	353.35	842.40	.....
Face, not otherwise classified	*1* 1	51	106.68	106.68	.....	277.44	.....
Two or more parts of face, one not clearly major injury	1	27	28.11	28.11	.....	49.60	.....
Vertebræ, not otherwise classified	1	374	732.00	732.00	.....	1,124.00	.....
Lumbar vertebræ	1	184	242.17	242.17	.....	368.00	.....
Thorax, posterior lumbar	2	346	865.82	432.91	.....	1,795.04	.....
Pelvis, not otherwise classified	3	133	2,183.40	727.80	.....	3,766.59	.....
Anus, rectum or perineum	1	121	200.76	200.76	.....	316.80	.....
Penis	*1* 1	98	211.12	211.12	211.12	326.36	.....
Testicles	*1* 4	50	334.46	83.62	40.00	608.21	1
Hernia, inguinal	*2* 3	130	684.61	228.20	154.52	1,839.47	.....
Sacro, iliac joint	1	10	.....	.....	.....	.....	1
Scapula	3	255	1,302.70	434.23	.....	2,498.80	.....
Clavicle	4	135	751.69	187.92	.....	1,504.38	.....
Right shoulder joint	6	123	1,461.18	243.53	.....	2,691.78	.....
Left shoulder, general	1	61	91.96	91.96	.....	145.20	.....
Right shoulder, general	1	28	53.33	53.33	.....	89.60	.....
Left shoulder	2	128	375.31	187.66	.....	742.60	.....
Right shoulder	8	83	1,890.56	236.32	.....	1,883.80	.....
Left arm	*1* 3	111	[10] 6,189.49	2,063.16	3,886.87	1,658.65	.....
Right arm	2	179	[11] 3,076.83	1,538.42	.....	1,161.95	1
Right upper arm	1	80	170.01	170.01	.....	266.40	.....
Left humerus	1	61	95.56	95.56	.....	178.94	.....
Right humerus	1	14	22.22	22.22	.....	65.00	.....
Left humerus, lower end of	1	24	46.67	46.67	.....	134.40	.....
Right humerus, lower end of	2	120	504.81	252.41	.....	676.58	.....
Left elbow	1	48	.....	.....	.....	158.40	1
Right elbow	*2* 7	94	989.81	141.40	143.64	1,801.16	1
Left forearm	*1* 3	164	852.76	284.25	533.36	2,134.10	.....
Left radius	1	611	[12] 3,696.10	3,696.10	.....	1,869.66	.....
Right radius	5	204	729.06	145.81	.....	1,285.79	1
Right ulna	2	33	101.56	50.78	.....	195.21	.....
Left radius and ulna	*2* 2	71	277.79	138.90	138.90	692.80	.....
Right radius and ulna	5	94	840.36	168.07	.....	1,691.92	.....
Left radius, lower end of	1	78	146.67	146.67	.....	285.60	.....
Right radius, lower end of	4	36	147.52	36.88	.....	339.00	1
Left ulna, lower end of	*1* 1	19	.....	.....	.....	.....	1
Right ulna, upper end of	2	37	148.89	74.45	.....	289.52	.....
Left radius and ulna, lower end of	2	25	95.56	47.78	.....	199.38	.....
Right radius and ulna, lower end of	11	125	[13] 2,846.92	258.08	.....	4,127.59	.....
Right radius and ulna, upper end of	1	69	119.04	119.04	.....	187.20	.....
Left wrist	1	74	11.11	11.11	.....	27.60	.....
Right wrist	4	69	503.00	125.75	.....	2,239.56	.....
Arms, or one arm and one hand	2	108	322.23	161.12	.....	660.20	.....
Left hand, not otherwise classified	*1* 1	68	75.56	75.56	75.56	138.75	.....
Right hand, not otherwise classified	*4* 5	66	648.20	129.64	133.16	1,230.86	.....
Right hand, back of	1	96	206.68	206.68	.....	368.64	.....
Right palm	*4* 4	158	1,308.40	327.10	327.10	2,699.83	.....
Hands, both	*1* 1	115	157.78	157.78	157.78	304.00	.....
Left metacarpal, one	2	27	104.45	52.23	.....	246.56	.....
Right metacarpal, one	*1* 4	93	605.71	151.43	346.68	1,376.89	.....
Right metacarpal, more than one	1	314	748.93	748.93	.....	1,381.60	.....
Left thumb, not otherwise classified	7 14	48	1,199.76	85.70	116.48	2,357.12	.....
Right thumb, not otherwise classified	*2* 12	36	697.27	58.11	124.63	1,382.11	1
Left thumb, proximal phalanx	3	34	147.58	49.19	.....	259.58	.....
Right thumb, proximal phalanx	*1* 2	40	104.45	52.22	48.89	232.60	.....
Left index finger, not otherwise classified	*3* 5	52	448.71	89.74	76.97	823.48	.....

[8] Lump-sum settlements with total awards of $2,834.09 and $6,524.57.
[9] Lump-sum settlements with total awards of $4,740.01.
[10] Lump-sum settlements with total awards of $2,258.07.
[11] Lump-sum settlements with total awards of $3,076.83.
[12] Lump-sum settlements with total awards of $3,886.87 and $2,258.07.
[13] Lump-sum settlements with total awards of $974.36.

PERMANENT PARTIAL DISABILITIES, BY LOCATION OF DISABILITY, OCCURRING SEPT. 7, 1916, TO DEC. 31, 1919, AND CLOSED BEFORE DEC. 31, 1919—Concluded.

LOSS OF FUNCTION—Concluded.

Member.	Number of cases.		Average days duration.	Award.	Average award.		Wage loss, all cases.	Number of non-compensated cases.
					All cases.	Cases of infection.		
Right index finger, not otherwise classified	*10*	25	47	$2,113.19	$84.52	$89.24	$4,149.57	.....
Left index finger, distal phalanx	*2*	2	46	181.56	90.78	90.78	452.85	.....
Right index finger, distal phalanx	*3*	5	68	639.03	127.81	169.91	1,141.68	.....
Left index finger, middle phalanx		1	5	4.44	4.44	.....	25.00	.....
Right index finger, middle phalanx		1	56	233.35	233.35	.....	525.40	.....
Left index finger, proximal phalanx	*1*	3	129	282.91	94.30	54.01	1,377.52	1
Right index finger, proximal phalanx		1	7	.....	.....	.....	.....	1
Left middle finger, not otherwise classified	*2*	5	39	348.73	69.75	106.12	708.99	.....
Right middle finger, not otherwise classified	*4*	11	49	840.41	76.40	105.66	1,554.59	.....
Left middle finger, distal phalanx		1	61	77.73	77.73	.....	123.20	.....
Right middle finger, distal phalanx		2	35	122.83	61.42	.....	212.22	.....
Left middle finger, middle phalanx		1	33	48.00	48.00	.....	79.20	.....
Right middle finger, middle phalanx	*1*	3	28	160.53	53.51	77.78	304.96	.....
Right middle finger, proximal phalanx		2	39	75.56	37.78	.....	207.20	1
Left ring finger, not otherwise classified		3	43	261.05	87.02	.....	533.04	.....
Right ring finger, not otherwise classified	*1*	5	40	139.23	27.85	28.89	627.75	1
Left ring finger, distal phalanx	*1*	1	20	34.00	34.00	34.00	60.00	.....
Right ring finger, distal phalanx		1	24	46.67	46.67	.....	120.00	.....
Left little finger, not otherwise classified	*2*	4	30	227.83	56.96	73.92	526.00	1
Right little finger, not otherwise classified		4	20	151.91	37.98	.....	256.37	1
Left little finger, distal phalanx		2	23	82.23	41.12	.....	161.60	.....
Right little finger, distal phalanx		2	84	266.68	133.34	.....	397.53	.....
Right little finger, middle phalanx		2	32	122.67	61.34	.....	235.56	.....
Right little finger, proximal phalanx	*2*	4	91	592.90	148.22	232.45	1,142.08	.....
Left thumb and one finger		1	73	155.57	155.57	.....	432.16	.....
Right thumb and one finger		3	23	104.16	34.72	.....	222.41	1
Left two fingers		2	45	166.66	83.33	.....	369.78	.....
Right two fingers	*2*	10	94	1,478.48	147.85	124.85	2,647.75	.....
Right three fingers		1	33	52.89	52.89	.....	88.11	.....
Right four fingers		1	35	71.11	71.11	.....	173.60	.....
Hip	*1*	6	155	1,382.41	230.40	240.43	2,428.66	.....
Hip joint		2	335	643.96	321.98	.....	890.00	.....
Thigh	*1*	26	211	[14] 13,403.84	515.53	60.00	17,466.32	2
Patella		2	49	187.14	93.57	.....	296.82	.....
Knee	*1*	14	132	3,258.45	232.75	74.00	7,302.46	2
Leg	*3*	24	198	8,683.19	361.80	281.34	19,411.16	1
Lower leg		1	35	57.18	57.18	.....	92.40	.....
Fibula		1	198	319.44	319.44	.....	516.20	.....
Tibia		1	274	602.25	602.25	.....	1,096.00	.....
Upper end of tibia		1	108	156.70	156.70	.....	241.92	.....
Upper end of tibia and fibula		1	401	707.51	707.51	.....	625.56	.....
Lower end of tibia and fibula		7	172	2,068.55	295.51	.....	3,233.56	.....
Tibia and fibula		8	226	2,775.26	346.91	.....	3,157.93	.....
Ankle	*1*	11	173	3,190.97	290.09	192.00	5,513.95	1
Foot, not otherwise classified	*1*	10	172	3,195.89	319.59	902.29	5,790.01	1
Top of foot	*1*	1	125	268.91	268.91	268.91	97.20	.....
Tarsals		1	175	375.58	375.58	.....	612.50	.....
Oscalis		5	230	1,645.01	329.00	.....	3,218.46	.....
Metatarsals	*1*	3	145	647.58	215.86	102.23	1,228.99	.....
Great toe, not otherwise classified	*1*	4	35	214.19	53.55	8.64	403.11	.....
Great toe, one phalanx		1	23	44.45	44.45	.....	115.00	.....
Malleolus		4	55	448.75	112.19	.....	950.41	.....
Multiple injuries		5	247	2,157.45	431.49	.....	3,629.31	.....
Shell shock		2	241	977.82	488.91	.....	4,403.33	.....
Total	*99*	531	.....	122,998.88	.....	.....	187,945.76	34
Nose (disfigurement)		1	13	22.22	22.22	.....	43.29	.....

[14] Lump-sum settlements with total awards of $5,247.61.

The CHAIRMAN. Is Mr. Archer here from New York? Is there anyone here from New York who will take his place? [Mr. Archer was not present.]

THE NEW YORK SYSTEM OF COMPENSATION FOR PERMANENT PARTIAL DISABILITIES.

BY WILLIAM C. ARCHER, DEPUTY COMMISSIONER IN CHARGE OF BUREAU OF WORKMEN'S COMPENSATION, NEW YORK INDUSTRIAL COMMISSION.

[This paper was submitted but not read.]

The New York system may be outlined as follows: The compensation case, during the acute stage of the injury, is heard and compensation is granted to the date of hearing and continued for further hearings at intervals whose length depends upon the character of the injury and the certainty of the duration of the acute stage. For instance, if it be known that the acute stage will continue for at least 10 weeks, the award is made for some 6 to 8 weeks in advance of the date of hearing and the case is brought to the calendar again at the end of that time. When the permanency of result is obtained, or, in other words, when the injured workman has recovered as far as he will recover, then the case enters upon the state of permanent partial disability.

The New York law divides permanent partial disabilities into classes:

(1) The list of members or organs for the loss of which or for the loss of use of which specific awards are prescribed.

(2) The same as the foregoing except that the disability is a partial loss or partial loss of use, in which the commission is authorized to award for the proportionate loss or proportionate loss of use of such members.

(3) Serious facial or head disfigurements, in which the commission in its discretion may make such awards as it may deem proper and equitable in view of the nature of the disfigurement, but not to exceed $3,500.

(4) All other cases, in which the measure of the award is two-thirds of the difference between the old wage and the new, which award is subject to the maximum limitations in the statute and subject to review from time to time as the later wage may make necessary.

In passing, two or three things of interest may be reported:

The award, except in the fourth subdivision above, is through a recent amendment a vested interest and does not die with the claimant's death.

The loss of 80 per cent of the vision of the eye shall be considered to be equivalent to the loss of use of that eye, and the loss of binocular vision shall be considered to be equivalent to the loss of use of one eye. An operation for cataract is considered as producing the loss of binocular vision.

The loss of any two of the following creates a condition of presumptive permanent total disability: Hand, arm, foot, leg, eye.

When the acute stage is passed and the permanent stage is reached, the case is ready for final adjudication. This is accomplished as follows:

(1) Permanent loss of any of the organs or members mentioned in the specific schedule is determined at a hearing in which the claim-

ant is present, and a medical examination is made and a report of such examination is filed. The award is then made accordingly and is ordered to be paid in installments of two weeks each. Little or no dispute arises in such cases, for the condition is more or less apparent.

(2) Cases of partial loss and partial loss of use likewise go to the calendar for final adjudication, at which time the various parties in interest are represented. A medical examination is made, and usually the medical examiner of the commission reports his opinion of the proportionate loss of use. The claimant or carrier's physician may be present at the examination and the latter usually is present. Parties then go before the presiding hearing commissioner and the finding and decision is made. The hearing is more in the nature of a conference, although sometimes witnesses are heard. The notes of the hearing are taken by the stenographer whether it resolves itself into a testimony case or a conference. The award when made is paid in periodical installments. The calendar in which these determinations are made is called the final adjustment calendar. It is a special calendar for the purpose. The number of cases thus handled was 6,311 for the year ending June 30.

(3) There is no rule to govern the amount to be allowed for facial disfigurement, but in order that the practice may be more or less uniform most of such cases are referred to the commission itself when more than one member is sitting. The exercise of this discretionary power is wholly a matter of judgment, and it is conceivable that were these cases, which are relatively few in number, heard by various commissioners sitting apart there would be wide variance in the awards made. The claimant, of course, is always present, and such cases are never testimony cases. Some consideration is given to the condition of the claimant. The impairment of wage-earning capacity is the basis of awards, and it may readily be seen that the same disfigurement of the face of a fair young man or woman might be more serious than were it upon the face of a grizzled veteran who had reached a permanent situation with his employer and who might hold it despite the disfigurement.

(4) The cases of impaired earning capacity are not so hard to determine, although they may not be determined finally but have to appear on the calendar from time to time when additional testimony is taken with respect to the present wage.

All of this, however, is not so easy as the simple recitation of it might indicate. For example, the eye cases are especially difficult, for who can say that an adequate guide to practice has ever been reached in this country, even among the oculists themselves, for determining proportionate loss of use of vision. The administration of compensation laws calls for a test to be made upon a new basis, one other than that which formerly obtained. Then the ordinary test was the ability to read. That test may be described as the reading test. The railroads had a different test, including the color test and the distance tests, but these tests were made for the sole purpose of determining fitness for employment and it was not necessary to determine percentages. Reports to compensation commissions have been made usually according to the Snellen system, which is a reading test. Figures are used as symbols, such as 10/20, 20/30, etc.

The first figure indicates the distance in feet in which letters or words are read which should be read in the number of feet indicated by the figures on the other side of the line. These symbols by some strange deduction are now often read as a fraction, the number before the line being the numerator, and the number after the line being the denominator. This undoubtedly would startle the author of the system. And yet I regard even this use of the symbols as better than some other tables which have been prepared, whose absurdities are patent. A new rule needs to be devised which shall give large consideration to the industrial requirements of the eye. And by all means an award should be made where there has been a cataract operation. This operation produces incoordination of vision and renders one of the eyes more or less useless as a vocational instrument, and this is especially so since it makes the remaining eye the dependable eye. I will say in passing that I have seen a table prepared by some ophthalmological society and emanating from Chicago which I regard as woefully defective and not at all a safe guide to use in compensation practice. I have seen arguments to the effect that much consideration should be given to the fact that insurance carriers are willing to spend money for treatment of eye injuries, and that because they are so willing that there should be a recognition by straining a point to find some degree of useful vision if possible. I can not see the matter in this light and it seems to me that it is vicious in principle. The injured eye is entitled to a cure if possible, and money should be spent to secure the services of the very best oculists to this end. These oculists should not be tempted to overstate the degree of remaining usefulness nor to cultivate or reward the patronage of the insurance companies. I will say that it is my conviction that the best rule for determining the matter of proportionate loss of vision is as yet an open question and of such very great importance that it requires solution.

I wish that four or five of the leading oculists of the country should be made members of a committee of which the other members were industrial commissioners, and that after full consideration a new rule should be promulgated and presented to the various jurisdictions. Such a rule would likely prove of great benefit.

In determining the proportionate loss of use of members from a vocational standpoint I would counsel the exclusion of so-called medical expert testimony. I would not exclude the advice of the commission's trusted medical expert, but I would not allow even him to become the judge in the matter. I would not exclude from conference on the subject any representative of either party in interest, but I would never allow the physicians to become the judges of proportionate loss of use. Let them describe the condition present, the parts involved, the degree of the involvement, and let them pronounce on any other phase of the question that their education and experience qualifies them to speak about, but when it comes to their saying that a certain hand has lost one-third of its use or one-half of its use their judgment may be no better than the judgment of a passing drayman who might be called in to give his opinion in the matter. Indeed, I think the latter would be the better witness if he be a man of sound judgment and fair mind, for he knows what a hand is expected to do. To admit freely so-called expert

testimony is only to invite confusion, for it is well known that if one expert with a certain opinion can not be found another can. It certainly never was intended to become a hair-splitting matter, but rather should it always remain a practical, open-handed, honest estimate of degree of loss. The award periods prescribed for the loss of members was a very arbitrary designation made in the dark. It is absurd, therefore, to think that there can be a scientific refinement of findings such as that there has been 0.287 of the loss of use of a foot.

In the New York jurisdiction, when cases are being heard on proportionate loss, they are usually heard one at a time (with others excluded from the room) in order that there may be no psychological development among a large number of people whose cases are waiting to be determined and in which hopes might be raised beyond reasonable awards. I think that these decisions should be arrived at in a friendly open conference, in which everybody speaks his mind without being overawed by formality of procedure. But such an adjudication may often give the bystander the idea that it is done by compromise, notwithstanding the element of compromise may be eliminated. The skill of the hearing commissioner, who has heard thousands of cases, will enable him to make up his mind quickly, and he will thus be able patiently to allow the parties to seem to come together in the judgment. In cases in which members have been given a manipulative treatment to restore function, as, for instance, baking and massage, the final determination should not be made too early after the cessation of treatment, for the seeming restoration of function temporarily gained is often later lost. Nor should such cases be closed against all rehearings, but left open for review if justice demands it or if unforeseen developments arise.

Some of these cases should be paid in a lump sum at the time of final adjustment, and especially is this true where the neurotic element is present. In such cases of neurosis the expectation of money is often a chief trouble. Sometimes in the New York jurisdiction the idea of finality is given to the claimant in a neurotic case, in which the carrier in an aside is made distinctly to understand, and the minutes so record it, that the case is not closed and will be or may be looked into again. These cases are extremely difficult and of growing importance with all commissioners as their experience is extended.

As a final word, let me enter a solemn protest against all efforts to harmonize each case with all the others or to bring about a deadly routine of procedure. The whole compensation question is an intensely human question, no two elements of which are alike, and the human elements vary greatly. There should always remain much freedom of action in order that the requirements of the particular case may be met. It would be difficult to lay down a rigid rule with respect to lump sums and their relations to final adjustment cases. On paper one case may look like the next one, and yet in one a lump sum should be given and in the other it should not be given. I say this because there is a tendency to dogmatize, and there are those who are impatient until all impressions are cast in the same mold.

The CHAIRMAN. We will proceed to the discussion of the Oregon system. Mr. Ferguson is not here, but his place will be taken by W. A. Marshall, of the Oregon commission.

OREGON SYSTEM OF COMPENSATION FOR PERMANENT PARTIAL DISABILITIES.

BY J. W. FERGUSON, COMMISSIONER, OREGON INDUSTRIAL ACCIDENT COMMISSION.

[Read by W. A. Marshall, chairman, Oregon Industrial Accident Commission.]

In Oregon injured workmen suffering permanent partial disabilities are entitled to compensation during temporary total disability, the monthly payments ranging from $39 to $97.50, depending upon marital condition and wages, and after the period of temporary total disability are entitled, in addition, to awards for permanent disability, such compensation being also in the form of monthly installments, and according to a fixed schedule contained in the act. This schedule provides for payments of $32.50 per month for periods ranging from 6 months for the loss of a little finger to 96 months for loss of an arm.

With but few exceptions, awards in the more serious cases of permanent partial disability are made only after personal examination by one of the physicians of the medical department. This method tends to secure more uniform awards for the same disabilities, reveals cases where further treatment is indicated before awards for permanent disability should properly be made, brings out valuable information in cases later becoming available for rehabilitation, and affords opportunity to explain to the injured worker details as to the basis of the award and any other information desired. Where claimants are called in for examination for this purpose, traveling and other expenses are paid by the State fund.

In other permanent partial cases, where the claimants reside in distant or isolated parts of the State, awards have been based upon the description of disability furnished by local physicians. Here an unsatisfactory condition arises, not only in some cases of amputation, but particularly where the disability consists of partial loss of function. Notwithstanding attempts to furnish to the examining physicians the basis upon which awards are made, the great variation in description of disability furnished the commission results in a lack of certainty on the part of the board as to the proper award to be made. This experience has resulted in adoption of the policy to have as many of these cases as possible examined by the members of our medical department for the purpose of determining the degree of permanent disability and thus greater uniformity in awards for similar disabilities.

A problem is also experienced in cases where injured workmen leave the State without the knowledge or approval of the commission and where permanent disability develops. In these cases difficulty is had in determining the period of temporary total disability, as well as the degree of permanent disability. Of all cases of this kind under the Oregon law, it can be said that in not a single instance have the members of the board been certain that the worker has not

been overpaid or has received less than provided by the act. As a result, we are discouraging injured workmen leaving the State before it can be determined that no further treatment is necessary and before the period of temporary total and the degree of permanent disability are established.

Relative to awards for loss of vision, the commission in Oregon has followed the practice of making awards on the basis of the Snellen tests, using the percentage method, and estimating loss without correction. Where loss of vision in one eye is 90 per cent or more, allowance has been made for entire loss of sight of the eye. Conferences with eye specialists of the State reveal many different opinions on these matters, and as the general subject of eye injuries is to have a prominent place on the program at San Francisco, the members of our commission look forward to the discussion with great interest.

In amputation cases, artificial limbs are provided in addition to other compensation benefits, and our physiotherapy departments are also available for the treatment of stumps in amputation cases prior to the securing of artificial limbs.

It is in these cases of serious permanent partial disabilities that provisions intended to aid the injured worker undergo severe tests. With every case presenting a set of facts differing in some important detail from other cases, the provisions of compensation laws must, indeed, be varied in order that everything be done to assist the worker in meeting his problem in the best possible manner.

The Oregon law provides that the commission may, in its discretion, pay to the injured workman a lump sum equal to 50 per cent of the present worth of future payments and then reduce the future payments proportionately. Where a lump sum is requested by a workman having a serious permanent disability, the commission requires the workman to furnish information as to the purpose for which the lump sum is desired. Upon receipt of this information an investigation is made by a field representative specializing in this work and a report is submitted to the board, with recommendations.

Among the reasons that have been advanced for asking lump sums were requests for the purposes of buying homes, paying off mortgages, or improvement assessments, the purchase of cigar and candy stores, restaurants, and other small business enterprises, tracts of land, live stock, auto trucks, autos to be used as jitneys, and also to enable the injured workmen to return to their home States or the old country, or to bring wives and children to the United States.

Where information indicates the payment of a lump sum does not promise to be for the benefit of the worker, the request is denied, and this action is also taken when it appears the request for a lump sum has come because of the interest of someone other than the injured workman.

The commission finally laid down the rule relative to lump sums that it would follow the course here outlined as to serious disabilities, but that in cases of minor impairments which do not force a change of occupation or are not likely to result in a dependent condition it will not be so exacting. In the more serious cases, however, it regards the provisions of the law giving it discretion as placing upon it the duty of paying lump sums only in those cases where such a course is clearly in the interest of the handicapped workmen.

While the payment of lump sums appears to be helpful in a small proportion of serious injuries, vocational reeducation is available in other cases where indicated. This feature, however, is treated at length in another paper by an associate.

No attempt will be made here to discuss the proper basis upon which a schedule of compensation for permanent partial disabilities should be erected. In fact, it is questionable whether, with the experience so far developed under compensation laws, adequate information is now available. The increased number of States affording assistance to permanently disabled workers in the way of vocational reeducation is also a factor that must be considered in determining a just schedule, and, generally, there is need of our knowing more of the actual experience of permanent partial cases after awards have been made and the workers undertake the task of gaining a livelihood in a handicapped condition.

Mr. MARSHALL (commenting on the last paragraph of Mr. Ferguson's paper). I think that is true and originally was indicated by Mr. Hookstadt, but I apply that to so many features of our compensation, where we said the law was upon the presumption, and upon the theory, and upon this and that; what we ought to know, it seems to me, is to find out what has become of that fellow and how he has gotten along; and really, with the exception of some investigation, some of it made here in California, we don't know. We are not sufficiently informed. We can theorize all we want to, but the final test will be: What has been the history of that case after it has left your hands?

The CHAIRMAN. The discussion of this subject will be led by Mr. Carl Hookstadt, United States Bureau of Labor Statistics. As you probably know, Mr. Hookstadt has during the last year made rather an exhaustive study of the systems in different States, not taking the figures prepared by the commissions, but visiting the different commissions; and I am sure we all appreciate the interest the bureau has taken in compensation matters. We are glad to know that, under the able guidance of Mr. Stewart, Mr. Meeker's successor, the same policy will continue.

Mr. CARL HOOKSTADT, of the United States Bureau of Labor Statistics. The information I have gained through the study of this year, I will leave for to-morrow. When a man suffers temporary disability, either bruise, or laceration, or burn, or fracture, we can readily determine his wage loss; but what is his wage loss in case he loses an arm, or a leg, or an eye? Nobody knows. The States are guessing; some of them have made some investigation—California is one of them—to determine what becomes of the cripple and what his wage loss is. As a rule we don't know. In my opinion, the loss of a leg, or an arm, or an eye, is a great deal more serious than is provided for by the State schedules. Some men have told me in all seriousness that the permanent loss of an arm, for example, is more or less a blessing in disguise. That is, it brings out latent reserve force that would not have come out if the man was normal, and they cite the old example of the man who lost his arm and became a bank president. Sweeping conclusions are drawn from exceptional and isolated cases. The thousands of crippled men who do not become bank presidents but become shoestring vendors are ignored.

SYSTEMS OF COMPENSATION FOR PERMANENT PARTIAL DISABILITY IN THE UNITED STATES AND CANADA.

BY CARL HOOKSTADT, EXPERT, UNITED STATES BUREAU OF LABOR STATISTICS.

One of the serious weaknesses in our workmen's compensation legislation has been the treatment of permanent partial disabilities. With the exception of California no State has undertaken to formulate a scientific system in which the amount of compensation provided is based upon the probable wage loss resulting from the injury. The several schedules adopted in the United States vary greatly as to the amount of benefits provided. Not only do there exist great variations among the various States as to the amount of compensation for the same injury, but the compensation provided for different permanent disabilities within the same State bears little relationship to the respective economic severity of those disabilities. For example, there is no legitimate reason why 150 weeks' compensation should be granted in New Mexico for the loss of an arm and 416 weeks' compensation for a similar injury in Oregon. Similarly the granting of compensation for 45 weeks for an index finger and only 150 weeks for an entire hand in Texas takes little account of the relative reduction in earning capacity. Therefore it seems highly desirable for the States and Provinces to undertake a scientific revision of permanent disability schedules in the hope of obtaining a closer correlation between permanent disabilities and the wage loss resulting therefrom. In the present paper I shall attempt to evaluate the several systems which have been adopted in America and to point out what seems to me the essentials in an adequate and scientific plan.

Two general methods of compensating permanent partial disabilities have been adopted in this country. According to one method the compensation is based on the percentage of wage loss occasioned by the disability, payments continuing during incapacity, but usually subject to maximum limits. Under this plan the injured employee receives compensation for temporary total disability during the healing period, and after his return to work a percentage of the wage loss, if his subsequent wages are less than those received at the time of the injury. The right to compensation for partial disability, however, terminates in most States after a period of time, usually after 300 weeks. The second method is the adoption of a specific schedule of injuries for which benefits are awarded for fixed periods, the payments being a percentage of wages earned at the time of the injury. The number of injuries specified in the schedules varies in the different States but provision is generally made for the loss of an arm, hand, leg, foot, eye, fingers, and toes and parts thereof. Six more or less well defined plans have been adopted in the United States and Canada, based upon one or both of the foregoing general principles. These plans I have arbitrarily designated by the name of one of the jurisdictions having such a plan.

FEDERAL SYSTEM.[1]

Under this system no compensation is paid for permanent disability as such. Compensation is paid for temporary total disability until the injured employee is able to return to work and then for partial disability based upon his actual wage loss as long as such wage loss continues.

The supposedly desirable feature of the Federal plan is that the amount of compensation paid is based upon the actual wage loss in each case. There are, however, numerous objections to this system, making it probably the least desirable of all the methods now in operation. Some of these objections are as follows:

(1) No compensation is provided for the loss of a member as such. Most persons sustaining the loss of a major member suffer a serious handicap not always shown in their wages. Such a person's expenses are probably greater than those of the normal person and in addition he suffers many inconveniences and hardships not experienced by a normal fellow worker.

(2) Compensation for partial disability is based upon the difference between the wages received at the time of his injury and those received upon his return to work, but this wage difference does not necessarily represent his reduction in earning capacity or actual wage loss. Wages may have increased since his injury. Consequently, although he may receive the same or even greater wages than he did at the time of the injury, such wages may be considerably less than those he would be capable of earning were it not for his disability and less than the current wages commanded by the occupation in which he was injured. Thus he suffers an economic handicap because of his injury but receives no compensation therefor. Furthermore, the wage level is constantly on the increase, which means an ever-increasing actual wage loss not mitigated by compensation.

(3) It must not be forgotten that a man who sustains a serious permanent disability is handicapped for the rest of his life. He may return to work at the same or even a higher wage than he received at the time of the injury and such increased rates may be enjoyed for five or even ten years. It is quite probable, however, that sooner or later the man will change his occupation or be discharged and either be unable to find employment or be forced to accept employment at a reduced wage. Theoretically, unless the law contains a maximum limit, he will then be entitled to further compensation. However, he may have left the locality or may have forgotten or never known his rights under the law. He makes no claim for renewed compensation and consequently suffers an injustice. Thus the purpose of the compensation law is defeated.

(4) Workmen, as a rule, are not thoroughly familiar with their compensation rights nor do they know how to obtain them. Unless application is made to the commission the latter does not know the actual conditions and assumes that the workman's compensation rights have been satisfied.

(5) Under this system it will be necessary for the commission to keep every permanent disability case alive on its books until the death of the injured workman, thus creating a considerable amount of administrative work.

[1] Adopted by Arizona, New Hampshire, and the United States Government.

(6) Most of the States do not grant compensation for partial disability after a certain period, usually 300 weeks. If after the expiration of this period the workman develops an incapacity or is unable to find employment by reason of his disability, he is not entitled to compensation under the law.

NEW YORK SYSTEM.[2]

This plan provides for a schedule of injuries for which compensation is to be paid for certain definite enumerated periods, compensation being based upon the wages received at the time of the injury. No compensation is paid for temporary total disability, the amount provided in the schedule being in lieu of all other payments. The amount of compensation is uniform for each type of disability, neither age, occupation, nor subsequent loss of wages or earning capacity being taken into account.

The advantages of the New York plan are its simplicity and definiteness. However, there are two serious criticisms against this system. In the first place no compensation is paid for temporary total disability. It frequently happens that a workman may be totally disabled for one, two, or even three years because of a fractured arm or leg which becomes ankylosed and later develops into a permanent disability. As a result, his compensation, which was intended to cover his loss of earning capacity due to the permanent disability, has already been consumed, and he therefore receives nothing for the permanent injury. Another objection to this system is that it does not take into account variations in degree of readaptability of different employees, nor does it consider the length of time that disabled workmen must carry their handicap. The degree of readaptability, which depends upon age, occupation, experience, training, and mental capacity, generally varies greatly with different employees.

OHIO SYSTEM.[3]

This system is identical with that of New York, except that compensation is also paid for permanent total disability during incapacity. It is therefore an improvement over the New York plan.

MASSACHUSETTS SYSTEM.[4]

The Massachusetts plan is a combination and modification of the three foregoing systems. Compensation is paid for temporary total disability during the healing period and thereafter for partial disability if the injury has resulted in an actual reduction in wages. In addition, compensation is paid for certain definite periods enumerated in the schedule. These schedule periods are much smaller (50 weeks for all major disabilities and 12 weeks for all minor disabilities) than the schedules of the New York and Ohio systems.

The objections to the Massachusetts plan are similar to those enumerated under the Federal system. It has one advantage, however, over the latter because it provides specific compensation for the loss of members irrespective of loss of earnings.

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[2] Adopted by Alabama, Alaska, Colorado, Delaware, Hawaii, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Montana, Nebraska, New Mexico, New York, North Dakota, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia, West Virginia, and Wisconsin.

[3] Adopted by Connecticut, Idaho, Illinois, Missouri, Nevada, New Jersey, Ohio, Oregon, South Dakota, Utah, Vermont, Washington, and Wyoming.

[4] Adopted by Massachusetts and Rhode Island.

CALIFORNIA SYSTEM.

California is the first State to undertake the formulation of a really scientific system for compensating permanent partial disabilities. Under the California compensation law the industrial commission is authorized to establish a schedule of permanent disabilities based upon (1) the nature of the physical injury, (2) occupation, and (3) age. In accordance with this authorization the commission has issued such a schedule, which has been outlined in the admirable paper by Commissioner Naftzger. In brief the California system is an attempt accurately and scientifically to correlate compensation to loss of earning capacity for each disability under various industrial conditions. Great credit is therefore due the California Industrial Commission.

Objections have been raised to the California system because it is too theoretical. My criticism against the system, however, is not that it is too scientific, but that it is not scientific enough. The totality of the economic or wage loss resulting from a permanent disability depends (1) upon the degree of impairment of future earning capacity, and (2) upon the life expectancy of the workman, i. e., upon his age at the time of the injury. The degree of impairment of earning capacity will depend upon the workman's adaptability, which again will depend upon the nature of the disability, the mentality (education, experience, training) of the workman, age, occupation, and whether the workman must change his occupation and also whether he must seek a new employer.

In the California system certain important factors have been disregarded entirely while others have, in my judgment, been emphasized too much. In the first place, the injured worker's experience, training, and education, or what may be termed his "mentality," has been practically ignored. A workman's power of readaptation, after an injury, probably depends more upon his mentality than upon his age, occupation, or disability. A man well educated and highly trained, whether he be a bookkeeper, machinist, or engineer, is much better able to adapt himself to new conditions than a stevedore or an unskilled common laborer; and this irrespective of whether the disability is due to the loss of an arm or leg. On the other hand, when a stevedore, say, especially at an advanced age, meets with a serious injury it makes little difference what the particular nature of the disability is; the man is practically through. The following tabular statement shows the number of weeks' compensation allowed under the California schedule for the loss of an arm and leg for several specified occupations:

NUMBER OF WEEKS' COMPENSATION ALLOWED FOR SPECIFIED OCCUPATIONS AND AGES UNDER THE CALIFORNIA SCHEDULE.

Occupation.	For loss of major arm between elbow and shoulder at—			Loss of leg at or above knee at—		
	21 years.	41 years.	61 years.	21 years.	41 years.	61 years.
Stevedore or laborer	221	242	263	181	201	224
Structural-steel worker	223	251	278	181	201	224
Machinist	231	[1] 455	[1] 449	178	193	208
Bookkeeper	229	277	[1] 417	165	133	101

[1] Approximately. Inasmuch as the schedule rating is over 70 per cent, compensation is paid during life. It was necessary, therefore, to reduce the life pension at the decreased rate to number of weeks at the full rate, using the American Experience Mortality Table.

An analysis of this table shows several important weaknesses in the California system. It will be noted that for the loss of the major arm sustained at the age of 61 years, 263 weeks' compensation is granted to a stevedore or laborer, 278 to a structural-steel worker, 449 to a machinist, and 417 to a bookkeeper. In other words, the less the adaptability and consequently the greater the loss of earning capacity, the smaller the amount of compensation. If it is the aim of the schedule to correlate compensation to wage loss the amounts should be reversed. The loss of an arm by a stevedore or structural-steel worker at the age of 61 practically ends his industrial career. These men should certainly receive larger amounts than those provided for a bookkeeper or machinist, who, because of their presumably better education and training, will find it more easy to adapt themselves. Again, at the age of 61 the loss of a leg by a stevedore or structural-steel worker is just as serious (in my judgment more serious) as the loss of an arm, yet the California schedule provides more compensation for the loss of an arm than for the loss of a leg. The loss of either at this age, from the economic viewpoint, is an extremely and equally serious matter. Furthermore, the loss of a leg is surely as serious industrially to a stevedore or structural-steel worker at the age of 61 as the loss of an arm to a machinist at the same age. But under the California schedule the stevedore or structural-steel worker receives only 224 weeks' compensation, whereas the machinist receives 449 weeks—over 100 per cent more. Again, to give a life pension to a machinist who loses an arm at the age of 41 and not to give a life pension to a stevedore who sustains a similar disability at the age of 61 seems the height of inconsistency.

A second criticism against the California schedule is that it presupposes standardized permanent occupations. It is assumed that the particular occupation engaged in at the time of injury is the workman's regular permanent occupation, and compensation is paid on this assumption. I believe this assumption to be unsafe. Hundreds of thousands of workmen have no regular occupation, and this is especially true of the more hazardous occupations, such as lumbering, stevedoring, and the iron and steel industry. An analysis of accident reports received by industrial commissions shows that a large proportion of the workers had engaged in a number of different occupations within a year or two prior to the injury. Manifestly, therefore, it is unjust to compute the amount of compensation, as is done in the California schedule, on the basis of the effect of the injury upon the earning capacity of the workman in a particular occupation when this occupation is not his regular one or when he has no regular occupation. But even if it were true that workmen have permanent standardized occupations, this plan would still be subject to criticism on the ground that it ignores the mentality factor in the workman's power of readaptability.

The third criticism against the California schedule, and perhaps the greatest weakness in the whole system, is that it does not take into consideration the length of time that the workman must carry his handicap after the injury. In other words the age factor, except in so far as it affects adaptability, is neglected for all disabilities under 70 per cent. In fact the whole underlying principle of the California permanent disability schedule is predicated upon the assumption

that it is possible for all partially disabled workers completely to rehabilitate themselves. Thus Mr. Naftzger in his paper says: "It is considered that this period of time [i. e., the compensation period provided in the schedule] will in the average case be amply sufficient for the purpose of rehabilitation. For example, if a man has a 10 per cent disability it is considered that at the end of 40 weeks he will have accommodated himself to his injury and will have regained his old standard of earning efficiency." On the same assumption, a man suffering a 50 per cent disability will have regained his old standard of earning efficiency at the end of 200 weeks. It will require a longer time to rehabilitate one's self at 40 than it will at 20, and at 60 than it will at 40; likewise the rehabilitation period will vary with different occupations and with different disabilities; but for all disabilities under 70 per cent it is assumed that sooner or later the man will rehabilitate himself and regain his former standard of earning efficiency at all occupations and at all ages under 75. Such an assumption is absolutely fallacious. It may be desirable, for the moral effect upon the disabled men themselves, to assume in dealing with them that everyone can be completely rehabilitated, but to base your compensation schedule upon such an assumption is extremely undesirable and unjust.

It is desirable and necessary that the probable impairment of earning capacity resulting from a given disability should be ascertained and such impairment should be expressed in percentage of total disability. Once having ascertained the probable impairment of earning capacity the compensation rate should be applied for the remainder of the workman's life. Obviously the percentage of disability increases with age and since adaptability decreases in the same ratio, the California plan is correct in increasing the percentage with age. It neglects, however, the important fact that the degree of disability, such as it is, continues for life.

BRITISH COLUMBIA SYSTEM.[5]

Under the British Columbia law the compensation board has formulated a schedule of permanent partial disabilities similar to the California plan, but with several important exceptions. The amount of compensation is based upon loss of earning capacity and is expressed in percentages of total disability. In arriving at this percentage of disability two factors have been taken into consideration: (1) Age, and (2) wage. Unlike California, the occupational factor has been ignored. The purpose of both the age and wage factors is to measure the degree of adaptability. According to the British Columbia plan, compensation increases with age on the assumption that the ability to adapt one's self to changed conditions after the injury decreases with age. On the other hand, compensation decreases with wage on the theory that the greater the wage the greater the mentality of the worker and consequently the greater his adaptability to meet changed conditions.

The British Columbia plan is probably the most nearly adequate and the nearest approach to a scientific system of compensating permanent partial disability yet developed in America. In the

[5] Adopted by British Columbia and Ontario.

first place the attempt is made to ascertain the probable reduction in earning capacity expressed in percentage of total disability; compensation for this percentage is then paid during the life of the workman. It is recognized that the handicap resulting from a permanent injury will continue through life. In the second place the percentage of disability is based upon the ability of the injured workman to rehabilitate and adapt himself. This power of adaptation depends upon two factors, age and mentality, including experience, training, education, etc. The mentality factor is supposed to be represented by the wage received. While the British Columbia board is to be commended for recognizing the fact that mentality plays an important part in the ability of a permanently disabled workman to adapt himself, present wages, however, are not an accurate index of mentality. The effect of supply and demand, unionization, and the trend toward standardization of wages by trades makes it practically impossible accurately to correlate wages with skill and mentality. This is the greatest weakness in the British Columbia system. I believe, however, that wages are a safer index of adaptability than occupation.

ESSENTIALS OF AN ADEQUATE SYSTEM.

An adequate compensation system for permanent partial disabilities should have the following essentials:

First. All permanent disabilities should be compensated. Compensation should not be limited to a few major disabilities, as is the case in Pennsylvania and Delaware. Furthermore, all degrees of permanent disability should be compensated. The compensable disabilities should not be limited to amputation cases or complete loss of use, as is the case in Ohio and Massachusetts.

Second. Full and adequate medical, surgical, and hospital treatment should be furnished every injured worker, the cost of which should be borne by the industry. It is absolutely unjust to limit the amount of such service. Such limitation simply means either that the medical profession must bear a part of this burden or that the injured employee will have to pay for the service out of his meager compensation benefits.

Third. Compensation should be paid for temporary total disability during incapacity in addition to the payments for permanent disability, which are supposed to represent the injured workman's subsequent economic handicap.

Fourth. The amount of compensation for permanent partial disability should be based upon and represent the probable reduction in earning capacity or wage loss. This wage loss depends upon the workman's readaptability, which in turn depends upon his age, occupation, experience, training, and especially upon his mentality.

Fifth. Compensation should be adequate. The compensation provided for major disabilities in the present State schedules probably represents less than one-half, perhaps not more than one-third, of the wage loss resulting from such disabilities. It is of little avail to try to ascertain for each occupation and age the correct relationship between the various injuries and their respective wage loss if the whole compensation scale is grossly inadequate. A system which provides for a flat and uniform amount of compensation, if this

amount in general adequately represents loss of earning capacity, is much more desirable, in my opinion, than a more scientific and flexible system which is, as a whole, inadequate. It should also be emphasized that the handicap resulting from a permanent disability is permanent and will continue during the workman's life. It is advisable, therefore, first to ascertain what the probable economic handicap of a given injury will be and then base the amount of compensation on the fact that such a handicap is permanent.

Sixth. The amount of compensation should be certain, definite, determinable in advance, and should not depend upon loss of earnings in individual cases. In brief, the permanently disabled workman must not be penalized for his ability speedily to rehabilitate himself. To do so would discourage successful rehabilitation work and would place a premium upon malingering.

Seventh. Provision should be made for adequately compensating second injuries. One of the consequences of workmen's compensation laws, possibly unforeseen at the time of their enactment, is the adverse effect of such laws upon the employment of physically defective workers. When a one-eyed workman loses the second eye in an industrial accident he is totally disabled for life. If the employer is required, under the law, to pay compensation for permanent total disability in such cases he will feel considerable apprehension about employing such men. On the other hand, if the employee is to receive compensation for the loss of one eye, regardless of the resulting disability and loss of earning capacity, he will be inadequately compensated and the purpose of the compensation act will be partially defeated. Several States attempted to meet this problem of discrimination by permitting physically defective employees to enter into an employment contract whereby they might waive their right to compensation for injuries due directly to their physical defect. Undoubtedly under this scheme many defective workmen are given employment which would be denied them if the employer were to assume the liability resulting from a second injury. Such a plan, however, leaves the handicapped workman unprotected in case of a subsequent accident. As far as he is concerned, the compensation law is to a great extent a dead letter, and in case of injury he will be thrown upon public charity or the generosity of his employer.

Another method aiming at the prevention of industrial discrimination against cripples is to prohibit insurance companies from charging employers higher premiums in case they employ disabled men. Minnesota recently enacted a law embodying such a provision. The weakness of this scheme is that it does not cover self-insured employers who, because of the direct relationship between accidents and compensation costs, would be more inclined to practice discrimination than insured employers.

A simple and adequate remedy for this situation lies in the creation of a special fund out of which the additional compensation may be paid. New York was the first State to establish such a fund and thus relieve the employers of the extra liability. The New York law provides that in case of a second major disability the employer shall be held liable only for the second injury, but the injured employee shall be compensated for the disability resulting from the combined injuries. The additional compensation is paid out of a special fund.

This fund is created by requiring the employer to contribute $100 for each fatal accident in which there are no persons entitled to compensation. Seven other States[6] have recently followed the example set by New York, and enacted similar provisions. Wisconsin, however, raises the special fund by requiring employers to pay an additional $150 in case an employee sustains a major permanent disability. These plans of taking care of the extra compensation liability through a special fund insure substantial justice to both employer and employee and remove one potent factor of discrimination.

Eighth. Every disabled workman should not only be paid the statutory compensation benefits and be functionally restored as far as possible, but should also be vocationally rehabilitated and replaced in desirable employment. The cost of rehabilitation should also be borne by the industry. Until recently disabled workers have been paid their compensation benefits and then allowed to shift for themselves exactly as they would have done prior to the enactment of compensation laws. Fortunately, the war focused attention upon the problem. In the attempt to restore the war cripple the plight of the industrial cripple was also brought into relief. Massachusetts in 1918 was the first State to provide for a rehabilitation department; since then nine other States,[7] the United States Government, and several Provinces of Canada have followed suit.

DISCUSSION.

The CHAIRMAN. The subject is now open for general discussion. The question of eye injuries and the question of permanent partial disability will fit in nicely with this subject, and if anybody wishes to discuss them, it will be in order.

Mr. A. J. PILLSBURY, commissioner, California Industrial Accident Commission. I scented trouble as soon as I found out what Mr. Hookstadt's subject was. We have discussed this problem before and have never reached any agreement. Now, I am willing to admit at the start that our system is not complete. It is not all we hoped to make it. It was made theoretically to begin with, and yet with a very careful study of perhaps 1,200 occupations, with all the information we could get from all the countries in the world. We tried to get a reasonable, rational basis for compensation for permanent injuries. We knew that it was defective, not so much in the particulars that Mr. Hookstadt mentioned as in some others. The schedule is now in process of revision, and we hope to have something after the 1st of January which will be very much more perfect, after having had seven years of experience. There is one thing I can say for it. It has saved tens, perhaps hundreds, of thousands of dollars which would have been spent in trying to prove in each particular case how much each particular kind of injury disabled and what the wage loss was, and had we not tried something of this kind, and had to decide on the record of each case, we would have had to decide differently where the same injuries existed under the same conditions, because the records would not have been the same. We have

[6] Massachusetts, Minnesota, North Dakota, Ohio, Oregon, Utah, and Wisconsin.
[7] California, Illinois, Minnesota, Nevada, New Jersey, North Dakota, Oregon, Pennsylvania, and Rhode Island.

had many such cases from our State, and generally when we have, it has been because of a faulty description of the nature and extent of the injury by the medical authority, whoever it was, who gave us the description. We have approximated pretty closely to the requirements of each particular case. We have taken in the age, assuming that the boy has the world before him and he can adapt himself to a new occupation if he wants, but that the man of 75 is too old a dog to learn new tricks. It is true the boy carries his injury a long time, but what would Mr. Hookstadt do with the dead people? They will be dead forever. Would you have the compensation go on as long as they have any heirs living? They have lost out forever. No. It is on the basis of the reasonable time it takes to rehabilitate. Left to themselves it does take a good while to rehabilitate. We have not kept as good track as I wish we might have, as I hope we shall, of what has become of all the men injured. But you will not find any of our people who have been compensated under our law selling lead pencils on the streets of this city. Those who are got their injuries in some other State.

The mentality problem is one which it seems to us can not be taken into consideration, because there is no way of getting at it. How are you going to make a test of what Mr. Hookstadt's mentality is, except to get his whole history from the department at Washington. Or as to any of the rest of us, how can you determine what the mentality is? That is a condition which can not be met. I know our schedule, when it comes to old age, is rather extreme. There is one other factor that Mr. Naftzger did not mention that we do consider, the ability to compete in an open labor market. We think if we have an eye injury case come before us, it is our fault and not the fault of the law if we do not fit the compensation to the need. We take into consideration the age of the man, his ability to adapt himself to occupations—that is, the need that he has for an eye in that occupation, the ability to compete in the open labor market, and wage. Now, it is true that his wages have to be fixed as of the time, unless he is under 21; then we boost it to what it would be when he becomes 21. But it must be settled once and for all, and not brought up eternally, so it is better to fix it. The insurance company has to know what its liability is. It can't be changed and cases reopened every two or three or five years during the period. We have some things that have to be arbitrary and that is one. But if we can have the change we are trying to get, and if our supreme court holds level on the law, we shall get the rehabilitation outside, to help these people, all of them, to get back their earning capacity, and I think our theory is sound that with all these injuries—500 of them or more, from the crown of the head to the sole of the foot—all these people who are at least normal, not subnormal, will, under a system of reeducation, within a reasonable time, develop an earning capacity in some form of industry, which in most cases will not involve a lower standard of living. Now, there are certain cases that are so serious that they ought to have life pensions, there is no question about that, to help them out; but in normal cases we will get them back without a loss or lowering of standard. We have always hoped this system would be supplemented and we are doing it to a certain extent, though handicapped by the fact that the constitutionality

of our rehabilitation act has been attacked; but straighten that out, and I believe, having nearly seven years of experience now, we shall soon be in position to know exactly how long these compensations, as a rule, need to be carried in order thoroughly to rehabilitate the men's earning capacity.

I thank Mr. Hookstadt for the compliments paid to us. We have struggled with the problem and are still struggling with it, and I think perhaps another year—at the next meeting of this association—we shall be able to report to you an amended, revised section, but I doubt whether we shall be able to do that on the basis of mentality, and I don't think we shall be able to do it on the basis of computing the length of time a boy of 16 must get along with some lost fingers, when he can adapt himself in six months or a year to an occupation where he will earn just as much as he did before.

Mr. MARSHALL. I would like to ask you, Mr. Pillsbury, from what source does the fund you intend to use under this rehabilitation law come?

Mr. PILLSBURY. We asked the legislature to impose a tax of $350 in all cases where employees are killed and leave no dependents. We got that idea from New York. It costs us just as much where an unattached man is killed as it does where a man with a family is killed, in the same proportion, and that goes in. Mr. French and I got through the first legislature of 1913 a law carrying that provision in effect, but the governor pocketed it, because he was advised by the attorney general that there was no way of making the State a dependent in default of other dependents, as the State would be the heir in default of heirs to his property, and so it was dropped. But in the Newman case in New York they imposed $100 for the benefit of these persons who have second injuries, who lost one eye in employment one time and another eye another time, and the New York law upheld the constitutionality, and we got busy at once to use the same idea for the purpose of getting a rehabilitation fund. We have between 30 and 50 now undergoing rehabilitation, but the constitutionality of that act is before the supreme court, and we don't know just where we stand and can't do all the things we want to do at this time.

Mr. MACKEY. There can not be any question about the constitutionality of the rehabilitation act, but the question may be raised as to the source of your revenue; but I think you need have no fear in that respect, because we looked it up very thoroughly in Pennsylvania and made the same recommendation to our legislature, but the legislature did not pass it; not, however, because it was obsessed with the idea it was not constitutional.

I would like to ask something in reference to the morning subject—I would like to ask along the line of the question I indicated this morning, Mr. Kingston. What is your legislative authority for graduating your compensation for loss of an eye in accordance with the percentage of loss? I am interested to know just what your authority is under your law, because we want to correct a very bad law.

Mr. KINGSTON. I may answer that by saying that there is no limitation whatever upon the discretion of the board; the board is entirely responsible for administering the law without any limita-

tion whatever except the 66⅔ per cent. There is no other limitation or restriction as to how much we shall give this or that man, nor as to how we shall arrive at the particular disability in any particular case.

Mr. MACKEY. The question I am interested in is what is the language of your act—giving you authority to make any award for the loss of an eye or the loss of vision at all? Our act provides we can make an award for a given number of weeks for the loss of an eye. There is no authority there for us to graduate that award for the percentage of loss of vision. We must have the loss of the eye to award 125 weeks. If a man has lost a percentage of vision, not reflected in earning capacity, we can make no partial disability award, but we would be very glad to get such an act—giving us a certain percentage of compensation for each percentage of loss of vision.

Mr. KINGSTON. I should think it would be very unfortunate if there were any attempt in legislation to define that in so many words. The best way, it seems to me, is to vest your administering board with discretion to determine all these matters.

Mr. MACKEY. That is what I want to know.

Mr. KINGSTON. I will give you a copy of our law.

Mr. MACKEY. Your legislature vests in you the power to determine the degree of loss of vision in an eye?

Mr. KINGSTON. Absolutely.

Mr. MACKEY. That is what I want to know. I want to ask a question now of Mr. Pillsbury. What is your authority in your act for you to adopt such a schedule as you have been discussing as to permanent partial disabilities?

Mr. PILLSBURY. The legislation gives our commission power to make a schedule, but itself determines how many weeks' compensation shall be given for each per cent of injury there is, making 100 total.

Mr. MACKEY. Giving you power to determine the percentage?

Mr. PILLSBURY. Yes. We do that, taking into consideration the occupation, the nature and extent of the injury, and the ability to compete in the open labor market. Those are the factors. We apply all those factors in each case. We made a schedule which we thought when we started in any employer or insurance carrier could use as well as we could. It so happened that when they did use it they never, as far as I know, overestimated the nature and extent of the injury, and we found a great many cases where they underestimated it. Therefore we make all the arrangements ourselves and have the description of the injury gone into in our office, and, as far as possible, have the injured persons themselves come to our office in San Francisco or Los Angeles to be gone over by our medical advisers, and have the extent of their injury set out clearly. That is being done in most cases. Still we have certain ones all over the State, certain physicians, whom we can rely on to be careful and accurate in their descriptions. We may have, for instance, a report come in of fingers off, but nothing said about ankylosis. It makes a great deal of difference whether we get a full, accurate description, or only partial description. Our experience has justified us in requiring ratings to be made. The commission has the authority to determine the percentage of disability, but the law specifies that for each per cent of disability there shall be paid four weeks of compensation.

There is just one fault with our schedule; one thing our law handicaps us about. In making up the schedule an allowance was made for the time ordinarily required to recuperate from temporary disability, but there are cases where a man has a very serious injury. For instance, two men with crushed ankles—they fall off the same scaffold; one of them gets well right away and has an ankylosis in his ankle, and he gets a certain disability rating of so many weeks. Now, the other man has a complication; he has scepticemia. Something gets into the wound and that keeps him in bed for six months. He comes out as good as the other man, but he gets only the same compensation. If the temporary compensation outlasts the permament, our law gives whichever lasts the longest; but what we want is to add onto the temporary disability, where it is prolonged, a rehabilitation period to exceed the temporary disability. Otherwise these people come out with no means at all for rehabilitation, because they spend all that time in the hospital; and there are cases of that kind where we have no power to do them justice.

Mr. GEORGE H. FISHER, commissioner, Idaho Industrial Accident Board. With the permission of my associates I would like to refer to a concrete case with reference to eye injuries, and do it for the purpose of information just to see what would be the consensus of opinion as to what would be done under similar conditions. Our law has a section setting forth a schedule for specific injuries or losses to members of the body—so much for an eye; the loss of sight is 100 weeks; by enucleation, 120 weeks; loss of an arm, so much; loss of a leg, so much. After this is all given there is a closing section which says, "In all other cases in this class compensation shall bear such relation to the amount stated in the above schedule as the disabilities bear to those produced by the injuries named in the schedule." We have had the experience in one case of eye injury, and that is what I want to ask about—what experience have the different boards had in the use of glasses for the correction of sight? We had a case of diplopia—by the way, it happened since prohibition has been in force. This unfortunate workman was left with that condition. The insurance carrier provided him with the proper treatment, and eye specialists gave him glasses that restored his sight to normal with the use of the glasses. The insurance carrier then questioned as to whether or not there should be any compensation. There was no loss of vision when the glasses were used. However, when the decision of the board was made—that is, the approval of the board was given to the estimate of the loss of vision or of injury by the specialist who considered the case—there was no objection raised on the part of the insurance carrier to paying the award. Regardless of the fact that there was no loss of vision when the glasses were used, the specialist's estimate was that the loss was one-third—that is, the injury was equal to the loss of one-third of the vision of the eye—and hence he was awarded something like $400 for the reason that the loss of sight of one eye is, as I stated, 100 weeks, and the maximum is $12, I think. The individual was satisfied with the award.

What is the experience of the industrial accident boards with reference to any appliances that restore function, this being a concrete case of the eye? Perhaps you have had experience of this particular nature.

Mr. W. P. MONSON, commissioner, Utah Industrial Commission. The Utah board has a provision similar to that of Idaho. It provides, however, for crutches and artificial limbs or glasses; but where the doctor's report says one-third loss of vision, we would make the award one-third of the number of weeks, or one-third of the total loss given in the specific schedule of losses. It is a loss to the individual, and he buys his glasses. Of course, we are interested in him, and would urge him to patronize an oculist and correct his vision for his own good, and would not lose sight of the man after the award has been made. We feel that there is a loss of function, and the commission of Utah is given power by the legislative act to cover just such situations as that; and we have done in every case just what Mr. Fisher says is being done in Idaho.

Dr. REGAN. I would like to ask the gentleman if the injury caused a distinct turning of the eye? Did it turn in or out, or anything?

Mr. FISHER. I do not know whether the report gave it. Did I tell you how the discovery was made that it was diplopia? During the convalescence of the patient in the hospital a friend came in to see him. The light was turned on, in a globe in the room, and he asked his friend to turn out one of the lights, as it was a little too strong for the eye.

Dr. REGAN. Was it a head injury?

Mr. FISHER. Yes.

Dr. REGAN. Were the glasses very heavy?

Mr. FISHER. I think not.

Dr. REGAN. Did the glasses correct it?

Mr. FISHER. Yes; the vision was normal after the glasses were fitted.

Dr. REGAN. It seems to me that was diplopia from refraction and not from injury. We have people who are perfectly healthy and who do not need glasses, and a sudden illness, say, for instance, pneumonia, will lay them up and the eye muscles will never come back. For the same reason, you can all see, a man of 45 or 46 needs a pair of glasses to read; he occasionally goes to 47 without, and then if he has a little sickness he will have to put on glasses, and he thinks the sickness has caused the glasses. That is not so at all. It is simply that the muscular apparatus of the eye of a normal individual sometimes holds its point quite long. In a case of this kind, to have caused the diplopia it must have been a central lobe injury to one of the nerves, and if that were true glasses would not correct it and the eye would be lost, because it would be in the same category as a traumatic cataract, i. e., although the eye would be able to see, double vision would occur. * * * If a man had an injury from hemorrhage or from concussion, it doesn't seem to me he would get a diplopia from that that glasses would overcome. They merely correct temporarily. It seems to me it was simply a refractive error there that the man's injury brought on—had nothing to do with the central lobe or the muscular apparatus.

Mr. FISHER. The question of the previous condition was thoroughly discussed, and while there might have been a suspicion of that, there was no proof of it. I wanted to bring out the method of compensation for loss of sight when there was no loss. Under the law as read,

we feel, as a board, we have authority to prorate for the impairment of function, and when the opinion of the specialist was to the effect there was one-third impairment, i. e., impairment equal to one-third the loss of vision, we thought we were doing the proper thing to award for that.

The CHAIRMAN. I think the point is not what caused this injury; the point is, are you going to give him credit for glasses? Mr. Monson says they don't give any credit for vision.

Mr. LEE. We adopted the same rule under our old law, but at the last legislature we said we would not take into consideration corrective lenses. I was interested in this discussion about the schedule. I confess, with all due respect to my friends with ability to read figures and make schedules, I confess I am a little at sea in figuring these different conditions of life. You have to go to the legislature and get what you want. You may have your ideas about it, and the more complicated you make them, the more trouble you are going to have. Our friend says a stevedore ought to get more or less than a machinist, or a machinist ought to get more than a stevedore. You ought not to take that into consideration or give the stevedore or machinist more. Added to that, you throw in the mentality, and the commission ought to sit there and judge it all. Either that or you have got to have the legislature say by what rule you are going to measure this. When you get into this question of measuring everything by fine rules and having the legislature give them to you, you have to run the hazard, first, as to whether you have the right arrangement; second, as to whether you have the ability to go before the legislature and get it approved.

When we are continually running to the legislature and admitting our inefficiency, we are lessening our influence with the legislature and our ability to get the things we need to carry on this work. So I say, when we are discussing the question of schedules, I agree with the gentleman from the Dominion of Canada; first have a solid foundation on which to work and get as much discretion in the hands of the commission as you can, in order that it can apply the schedule in each individual case and mete out justice in all the cases. That's the premise this commission ought to build upon and not the fancy views of different persons engaged in trying to work out a system of schedules that will correct all the ills that unfortunate workmen have to bear. Therefore, I say I believe that California will find before long that the stevedore on the wharf will find out he ought to get more than the machinist, and then will commence rows over legislation, and you will get a very peculiar product. You may say that is common, ordinary talk, but it is true. We all have the same experience. The more you complicate this workmen's compensation, the more you try to specialize on it, of course, the more difficulty you are going to have. I don't know whether they will have that experience here, because everything good under the sun is in California, almost. They have their own little world here and get along pretty well. When we butt shoulders in the Eastern States we can't get away with these things, but they may out here, because they are sort of isolated and have everything good under the sun, almost. We would like to take some of it away with us.

The CHAIRMAN. Mr. Lee was formerly of the Maryland Legislature, so he knows whereof he speaks.

Mr. KINGSTON. I appreciate the compliment paid to our system in Ontario. At the same time, no one appreciates more than do we in Ontario the weaknesses of our system; but we are looking for more light and looking to improve our law all the time. As to the table referred to as adopted by Ontario, I hate to have the impression go abroad that we are married to that. It is something that we use as a guide, but I should hate to put it out as the last word in a permanent partial disability rating schedule. It is true we do consider that the high-wage man will more readily adapt himself to new conditions than the low-wage man. I think as a general principle you all accept that, but there is not one of you who can not take an individual case and prove that such a statement is wrong. At the same time I believe that in the main the high-wage man will more readily adapt himself to a new occupation, more quickly rehabilitate himself and get on a working basis than the low-wage man. As to the difference between young and old men, our system makes no difference as to the pension they shall receive, but it amounts to this, that we use the life expectancy table when we come to find the present worth of that pension. That is the only difference we make between the permanent partial disability awarded to the young man and to the old. The same system, I understand, is used in Nova Scotia and other Canadian Provinces.

The CHAIRMAN. What do you say about the glasses?

Mr. KINGSTON. I would say, first, that in what Mr. Fisher has stated I can hardly believe we have the whole story of that eye. I can not believe that a man with a genuine case of diplopia can have his trouble entirely corrected by the use of glasses. If an injury, however, is of such a nature that it amounts simply to this, that it has compelled a man who formerly was able to get along perfectly well without glasses to wear glasses in the future, we would say it is a case for a minimum award, and give him $100 or $150. If it were a genuine case of diplopia, so that the man must wear something over the eye, we would treat that eye as if it were an eye with the lens removed—or successfully operated on for a cataract. In either case, the eye is of very little practical use to the man, and we would rate the injury on a 12 per cent basis. Have I answered your question?

Mr. FISHER. It doesn't make any difference whether I stated the case correctly or not. I want to know the opinion of the accident boards in regard to eye trouble, whether diplopia or something else, when corrected by the use of glasses.

Mr. KINGSTON. If an accident compels a man to wear glasses he ought to be compensated for his loss. It may be, however, that he is at that time of life the doctors speak of, around 45, 46, 47, or 50, when he ought to wear glasses anyway, and the accident has just wakened him up to the idea, or has impressed upon him the necessity of wearing glasses. Had he consulted an eye specialist before the accident he probably would have been advised that he should wear glasses. These are factors which enter into the consideration of these cases. It is obvious, of course, that such a case should be treated

differently from that of the man who has suffered a real injury compelling him to wear glasses. This large question of rating permanent partial disabilities is one that comes home very forcibly to every one of us. I attempted four years ago at the convention at Columbus to compare the various jurisdictions that had compensation laws at that time. I took five or six specified injuries—one to the eye, one to the arm, one to the leg, one to the thumb, one to the index finger, and one for permanent total disability—simply to see, in terms of real money, how the various jurisdictions were providing for such injuries. The spread in amount between the State paying the most and the one paying the least was simply amazing, yet there are none of you but will readily admit that an arm in Maryland is just as valuable as an arm in New York, and the man in Oregon will probably think as much of his eye as the man down in Alabama. The difference, of course, is almost entirely a question of legislation. We are all limited more or less by legislative provisions that control the boards' discretion, and our awards must be limited accordingly, and until we get away from those statutory limitations we are never going to see anything like uniformity in permanent partial disability rating schedules. I hope the time will come when each jurisdiction will have its administering board vested with discretion to rate all these cases in accordance with its judgment. We are appointed to administer these laws, because presumably we are considered to have some knowledge of the subject; at least we are expected to acquire technical knowledge and all possible light on the subject as our work develops.

No one ought to be better fitted to provide a correct rating schedule than members of compensation boards and their technical assistants who are studying the subject day in and day out, and if this discussion reaches anywhere, I hope it will induce some of us to go back to our legislatures and impress them with the importance of getting away from these statutory schedules, which outlived their usefulness long ago, and of getting to a place where those who are administering the law will be given the widest possible discretion. Much has been said as to whether the wage basis at the time of injury ought to be the final basis for compensation or whether it should increase from time to time according to the wages the man might have earned had he not been injured. In Ontario we calculate compensation on the basis of the average earnings at the time of injury. We feel that probably that is the safest procedure. There are times when wages will increase, then again they will drop. During recent years, however, there has been a gradual rise, and in so many cases the men have said, "Had I not been injured I would have been able to earn considerably more money than the basis on which you are awarding compensation." I think on the whole it is the fairest to take as the basis the average wages at the time of the injury, because that in most cases is so easily ascertainable. I do not know where we would land if we tried to vary the bases according to the times, because what would have happened must vary so much, depending on locality, and it would often involve the taking of an enormous amount of evidence to determine what the new wage basis should be.

There is another point which perhaps does not arise in the States, where you are limited by your statutory schedules. That is as to the multiple value of certain injuries. To rate the loss for one finger

is easy enough, but if a man loses two fingers the sum of the ratings for those two fingers is not the correct measure of his loss. There is a multiple that ought to be taken into consideration. Take the loss of four fingers. The sum of the rates for each of the four fingers is surely not commensurate at all. They have a certain way of calculating multiple loss in British Columbia. We have quite a different scale in Ontario. We say for two injuries of this sort we will add the sum of the two fingers, plus one-fourth; if three injuries, add the sum of the three, plus one-third; and for four, the sum of the four, plus one-half; and in a rough way we arrive at what we call a fair amount. In British Columbia, for two injuries they take the sum of the two plus 50 per cent; for three, the sum of the three plus 100 per cent; and for four, the sum of the four plus 150 per cent.

Another great question, of course, is that of rehabilitation of the injured worker. In Toronto we are hoping soon to arrive at the point where we will be able to take a man who has been seriously injured and apply some of the rehabilitation measures which have been so successfully adopted as the result of the war. We have not got anywhere yet with that, but we are reaching the point where we are very seriously considering the matter, and I hope before another convention date comes along we may have something to report.

On the question of second injuries, or injuries following preexisting disabilities, as mentioned by Mr. Hookstadt, I appreciate the difficulty which the States having individual liability systems are under in this respect. In the jurisdictions having exclusive State insurance systems, such as Ohio, Oregon, Washington, and the Canadian Provinces, it is easy to establish an emergency fund simply by appropriating a small percentage of the total assessment, and I do not see why such a fund should not be made available to take care of the additional burden in these cases which someone must pay. It is not fair, in my opinion, that the employer who is good enough to employ a one-armed man or a one-eyed man should burden either himself or the class of employers to which he belongs with a total permanent disability loss in the event of such man losing the remaining arm or eye. The particular industry should of course bear the loss arising from the last accident, but if this loss superadded onto the existing disability produces total disability, that is an emergency or special case, to be treated under some such fund. This idea, derived I think from the Italian law, of making a special charge in every death case where there are no dependents, is not a very scientific way of providing an emergency fund. The best way, it seems to me, particularly where the boards have the assessing power, is a small uniform assessment, or a percentage of the total assessments, amounting to whatever may be required to make provision for such cases.

The CHAIRMAN. Mr. French has handed me a paper just received in the mail from Mr. Archer, of New York, on the New York system of dealing with permanent partial liability. Inasmuch as the hour has nearly arrived for adjournment, this paper will not be read but will be considered as presented at this session, given to the secretary, and contained in the report of the meeting to-day.

I wish some of you would answer Mr. Fisher's question instead of trying to convince him he made a mistake in his decision. He wants

to know if a man has received an injury and lost a certain percentage of vision, and that can be corrected by the use of glasses, do you pay him—do you give him credit for it? Why don't you answer it?

Mr. KINGSTON. Certainly we would.

Mr. GARDINER. We give a man credit for that, when a man receives an injury, irrespective of correction, and the insurance company or the employer is asked to provide artificial means of correction. There is no more reason for not doing so than if a man lost a leg and an artificial limb was provided for him so he could get around. There isn't any more reason because he is furnished the artificial leg, thus giving him means of navigation, that he is not to be paid for the injury.

Mr. MACKEY. I don't know that the decision of this board, from the standpoint of the employer and the insurance carrier—it was very modest to what we did in Pennsylvania. Compensation in Pennsylvania follows an injury, and we give compensation for the result of that injury, irrespective of what the person needs, and which may be procured, for temporary restoration. He couldn't receive any compensation, say, for broken glasses; therefore we would give the man compensation for loss of the eye, or 125 weeks. The same way, we had a peculiar case. We gave compensation for the loss of an eye where there was no injury to the eye whatsoever, but the man received a burn searing the tear duct, so that the eye was constantly inflamed. He was a miner. That eye was rendered absolutely useless. Unless it was covered moisture was constantly flowing from the eye, and as a miner he had lost the use of his eye, and we compensated him for the total loss of the eye.

Mr. WILL T. KIRK, commissioner, Oregon Industrial Accident Commission. In Oregon we do the same as in Maryland. We pay for the loss of vision uncorrected, on the basis of being uncorrected by glasses. But I want also to amend the suggestion of Mr. Lee relative to permanent partial disability rating, to hold it down to simplicity. I believe that is the valuable thing with compensation laws, to hold them to simplicity, instead of making them difficult and intricate. In Oregon the law provides for the loss of an arm, or leg, or foot, or more, and gives the commission complete discretion to fix the percentage of loss in lesser injuries. If one loses 30 per cent or 40 per cent of a member, the commission has power to determine that by the examination of physicians to determine the per cent of loss. It seems to be a simple method, and I would like to see simplicity followed. We have in our law another provision which I think is excellent and would like to mention, the provision which says the commission shall not make a final settlement in any case until it has done all it can to restore the man to as near normal condition as possible. This gives the commission authority to employ restoration methods, and it seems only what the worker is entitled to in case of injury.

Mr. FISHER. I wish to express my appreciation for the assistance given by those who have spoken on this subject. It is said that everything comes to him who waits. We waited and got information from a sufficient number of boards. I wanted it for future guidance.

Mr. GARDINER. I would like to ask Mr. Kirk, of Oregon, a question. What do you do in your State or commission where, for instance, there is a dispute as to the percentage of loss of use, whether it be the eye or any other member of the body, with the insurance company's doctor—you have a commission?

Mr. KIRK. Yes.

Mr. GARDINER. Supposing the insurance carrier's doctor brings in the statement that there is 75 per cent loss of use of the hand. The injured man feels that that is not just; that he has not an equitable allowance there; consequently he takes it to his own doctor, his family doctor, and he disagrees with the insurance company's doctor. Then coming to us we suggest that he have a neutral physician, and a neutral physician comes in with a report that does not agree with the other two.

Mr. KIRK. Use one of your own.

Mr. GARDINER. That, of course. We have to be satisfied with the reports in the case, but I wondered what you would do in the administration of the law under the commission.

Mr. KIRK. In Oregon, of course, we don't have the insurance companies. We have a State fund and don't have the insurance companies interested. We make a practice, wherever the man is at all accessible, to call the man in for examination by our own physician. If the man is dissatisfied with his report and brings in a report from his own physician that the disability is greater, we usually do this: We say, "We will send you to a board of three neutral physicians. You can select one, and we will select the others, and we will abide by the findings of those doctors." When that report comes in we make the award on that. Sometimes it is not necessary to have three. We will send him to some competent surgeon in the State and abide by his report. In our State, if the man is still dissatisfied he has the right to take it to the court for jury trial.

Mr. LEE. We have a doctor, and when the other doctors disagree we say to our doctor, "Look this fellow over. Don't talk to the insurance doctor nor to the claimant's doctor. You look him over and tell us what you think." When he gives us his opinion, we come pretty near deciding what he says, no matter who disagrees. But half the time all these doctors disagree each with the other, so they can't get mad when we disagree with them. But we come pretty close to doing what our doctor says about it. We expect him to give use correct advice; otherwise we would get another doctor.

Mr. PILLSBURY. It seems to me there is a little confusion. It seems to me what we want doctors for is to tell us what ails a man. All we ask of the doctors is that, and sometimes they disagree and we have to get a good many of them before we get it thrashed out as to what is the nature and extent of the injury. We don't ask them to use their judgment as to what this man can do. That's our business. But when doctors disagree as to the nature and extent we sometimes send the man to the best expert we know in that particular line and his report goes into the record and it will be determined on that, or our own doctors examine him. But that's all we have the right to ask of the physicians and surgeons—to tell us the nature and extent of the disability.

Mr. HOOKSTADT. Just one brief point. I explicitly stated it was a minor matter, where you have a complicated graded schedule, whether you pay the stevedore more than the bookkeeper, or vice versa, if both are inadequately compensated. The point I make is that our partial disability schedules are grossly inadequate. Now, in Oregon they pay 416 weeks for the loss of an arm; in Maryland, 200 weeks; in New Mexico, 150 weeks.

Mr. LEE. How much a week?

Mr. HOOKSTADT. Whatever the schedule says. Weeks, after all, is the basis of comparison. My point is that if Oregon's 416 weeks is correct, then Maryland's 200 is certainly inadequate and New Mexico's 150 is more inadequate.

The CHAIRMAN. I think the time has arrived to close the meeting.

The meeting to-night will be held at 8 o'clock in this room. I trust you will all be here and be here promptly.

[Meeting adjourned.]

CHAIRMAN, WILL J. FRENCH, PRESIDENT, I. A. I. A. B. C.

BUSINESS MEETING.

The CHAIRMAN. It was decided at this morning's meeting that we would take up very briefly the business meeting at this time. I shall appoint the following committees:

Committee on resolutions (five).—William A. Marshall, F. W. Armstrong, Thomas F. Konop, Robert E. Lee, and W. P. Monson.

Committee on nominations (three).—George A. Kingston, Harry A. Mackey, and John P. Gardiner.

Committee on credentials (five).—Dr. James J. Donohue, Chester E. Gleason, George D. Smith, Fred W. Llewellyn, and H. C. Myers.

The chairmen of those committees will please take note and call the committees together.

The chair wishes to call attention to Article X of the constitution, which states:

Amendments.—This constitution or any clause thereof may be repealed or amended at any regularly called meeting of the association. Notice of any such changes must be read in open meeting on the first day of the conference, and all changes of which notice shall have thus been given shall be referred to a special committee, which shall report thereon at the last business meeting of the conference. No change in the constitution shall be made except by a two-thirds vote of the members present and voting.

According to that, any changes should be submitted this evening. I shall call on our secretary-treasurer pro tempore, Charles H. Verrill, of Washington, D. C., to read his report as secretary-treasurer.

REPORT OF THE SECRETARY.

The International Association of Industrial Accident Boards and Commissions now includes the following 35 active members:

United States Employees' Compensation Commission.
United States Bureau of Labor Statistics.
Industrial Accident Commission of California.
Workmen's Compensation Commission of Connecticut.
Industrial Accident Boards of Hawaii (counties of Kauai, Maui, Hawaii, and Honolulu).
Industrial Commission of Illinois.
Workmen's Compensation Service of Iowa.
Department of Labor and Industry of Kansas.
Industrial Accident Commission of Maine.
Industrial Accident Commission of Maryland.
Industrial Accident Board of Massachusetts.
Industrial Accident Board of Michigan.
Department of Labor and Industries of Minnesota.
Industrial Accident Board of Montana.
Industrial Commission of Nevada.
Department of Labor of New Jersey.
New York State Industrial Commission.
Industrial Commission of Ohio.
Industrial Commission of Oklahoma.
Industrial Accident Commission of Oregon.
Department of Labor and Industry of Pennsylvania.

Industrial Accident Board of Texas.
Industrial Commission of Utah.
Industrial Commission of Virginia.
Industrial Insurance Department of Washington.
State Compensation Commissioner of West Virginia.
Industrial Commission of Wisconsin.
Department of Labor of Canada.
Workmen's Compensation Board of Alberta.
Workmen's Compensation Board of British Columbia.
Workmen's Compensation Board of Manitoba.
Workmen's Compensation Board of New Brunswick.
Workmen's Compensation Board of Nova Scotia.
Workmen's Compensation Board of Ontario.
Department of Public Works and Labor of Quebec.

Four active members—the Department of Labor and Industry of Kansas, the Industrial Accident Commission of Maine, the Industrial Commission of Nevada, and the Industrial Commission of Virginia—have been added since the last annual meeting. The Tennessee Department of Workshop and Factory Inspection joined the association last year and paid dues for the year ending June 30, 1920, but owing to conditions of their workmen's compensation act will be compelled to withdraw the membership for the present. Wyoming is rejoining the association, having dropped its membership after the last annual meeting.

The United States Employees' Compensation Commission, the United States Bureau of Labor Statistics. and the Department of Labor of Canada are exempt from the payment of annual dues.

The following are associate members:

Idaho Industrial Accident Board.
Ontario Safety League.
Workmen's Relief Commission of Porto Rico.
Republic Iron & Steel Co., Youngstown, Ohio.

One of these associate members, the Ontario Safety League, has joined since the Toronto convention.

Dr. Royal Meeker, who had served as secretary-treasurer of the association for several years, resigned his position as United States Commissioner of Labor Statistics on July 31, 1920, to accept a position with the newly organized International Labor Office, at Geneva, Switzerland. In anticipation of this event he had before submitted his resignation as secretary-treasurer to the executive committee, which thereupon elected me to act as secretary-treasurer temporarily until definite action could be taken at the annual meeting of the association.

The selection of Commissioner Meeker as secretary-treasurer of the association was a very happy one and was, it is believed, profitable both to the Bureau of Labor Statistics and to this association. It is one of the important functions of the Bureau of Labor Statistics to study workmen's compensation legislation and the operation of the various laws. Commissioner Meeker's duties as secretary-treasurer enabled him to keep in very close touch with the compensation administration in the various States and materially facilitate the studies of workmen's compensation which he was called upon to make from time to time. In view of this function over which Commissioner Meeker presided the proceedings of the annual meetings have been regularly published by the bureau as one of its bulletins. This also has been helpful both to the association and to the bureau. The arrangement has permitted the circulation of the papers of the proceedings to those persons who, from correspondence with the Bureau of Labor Statistics. are known to be keenly interested in the operation of workmen's compensation laws.

The proceedings of the Toronto meeting have been just issued by the Bureau of Labor Statistics as its Bulletin No. 273, and copies are available for members who desire them at the headquarters here in San Francisco. The delay in the publication of these proceedings has been due largely to the delay in submission of some of the papers. A large proportion of the papers were available in proof and were distributed at the Toronto meeting, but a small number were greatly delayed and Commissioner Meeker did not feel warranted in closing the publication until these papers were finished.

A large number of the papers of the present meeting have been printed in temporary form as was done last year and are available for distribution. The large number available now is certainly a subject of congratulation. A few papers which were furnished too late for printing and a few which were not

furnished at all are, of course, not available, but will be included in the proceedings when printed.

Respectfully submitted,

CHARLES H. VERRILL, *Secretary-Treasurer.*

SEPTEMBER 8, 1920.

REPORT OF THE TREASURER.

BALANCE AND RECEIPTS.

1919.		
Sept. 18.	Balance on hand (bank deposits, Liberty bonds, and postage and telegraph fund, including 77 cents in stamps)	$1,580.30
23–26.	Alberta Workmen's Compensation Board, annual dues, 1920	50.00
	Tennessee Department of Workshop and Factory Inspection, annual dues, 1920	50.00
	Iowa Workmen's Compensation Service, annual dues, 1920	50.00
Oct 10.	West Virginia Workmen's Compensation Commissioner, annual dues, 1920	50.00
11.	Nova Scotia Workmen's Compensation Board, annual dues, 1920	50.00
13.	New Brunswick Workmen's Compensation Board, annual dues, 1920	50.00
18.	Minnesota Department of Labor and Industries, annual dues, 1920	50.00
	Connecticut Workmen's Compensation Commission, four-fifths annual dues for 1920 (one-fifth paid in August, 1919)	40.00
	Interest on Liberty bonds	14.89
20.	Ontario Safety League, associate membership dues, 1920	10.00
Nov. 3.	Ontario Workmen's Compensation Board, annual dues, 1920	50.00
	Wisconsin Industrial Commission, annual dues, 1920	50.00
	Oklahoma Industrial Commission, annual dues, 1920	50.00
7.	Massachusetts Industrial Accident Board, annual dues, 1920	50.00
11.	Montana Industrial Accident Board, annual dues, 1920	50.00
	Michigan Industrial Accident Board, annual dues, 1920	50.00
12.	Utah Industrial Commission, annual dues, 1920	50.00
17.	Ontario Workmen's Compensation Board, tax on $50 check	2.06
19.	Ohio Industrial Commission, annual dues, 1920	50.00
24.	Kansas Department of Labor and Industry, annual dues, 1920	50.00
28.	Maryland Industrial Accident Commission, annual dues, 1920	50.00
Dec. 1.	California Industrial Accident Commission, annual dues, 1920	50.00
	Illinois Industrial Commission, annual dues, 1920	50.00
5.	Washington Industrial Insurance Commission, annual dues, 1920	50.00
17.	New York State Industrial Commission, annual dues, 1920	50.00
22.	Oregon Industrial Accident Commission, annual dues, 1920	50.00
26.	Hawaii Industrial Accident Boards (counties of Kauai, Maui, Hawaii, and Honolulu), annual dues, 1920	50.00
1920.		
Jan. 1.	Interest	9.24
10.	Virginia Industrial Commission, annual dues, 1920	50.00
13.	Nevada Industrial Commission, annual dues, 1920	50.00
Apr. 15.	Interest on $700 Liberty bonds	14.87
June 25.	West Virginia State compensation commissioner, annual dues, 1921	50.00
	Republic Iron & Steel Co., annual dues, 1920 and 1921	20.00
30.	Minnesota Department of Labor and Industries, annual dues, 1921	50.00
July 1.	Interest	13.29
3.	Virginia Industrial Commission, annual dues 1921	50.00
7.	Ontario Workmen's Compensation Board, annual dues, 1921	50.00
	Maine Industrial Accident Commission, annual dues, 1921	50.00
8.	Pennsylvania Department of Labor and Industry, annual dues, 1920	50.00
17.	Wisconsin Industrial Commission, annual dues, 1921	50.00

July	20. California Industrial Accident Commission, annual dues, 1921	$50.00
	21. Ontario Safety League, annual dues, 1921	10.00
	22. Maryland Industrial Accident Commission, annual dues, 1921	50.00
	23. Manitoba Workmen's Compensation Board, annual dues, 1920 and 1921	100.00
	27. Montana Industrial Accident Board, annual dues, 1921	50.00
	Washington Industrial Insurance Department, annual dues, 1921	50.00
Aug.	2. Nova Scotia Workmen's Compensation Board, annual dues, 1921	50.00
	Idaho Industrial Accident Board, annual dues, 1921	10.00
	Connecticut Workmen's Compensation Commission (one-fifth annual dues for 1921 sent by F. M. Williams)	10.00
	3. Connecticut Workmen's Compensation Commission (one-fifth annual dues for 1921 sent by C. B. Chandler)	10.00
	4. Connecticut Workmen's Compensation Commission (one-fifth annual dues for 1921 sent by J. J. Donohue)	10.00
	6. Pennsylvania Department of Labor and Industry, annual dues, 1921	50.00
	7. Oregon Industrial Accident Commission, annual dues, 1921	50.00
	9. Connecticut Workmen's Compensation Commission (one-fifth annual dues for 1921 sent by George Beers)	10.00
	Alberta Workmen's Compensation Board, annual dues, 1921	50.00
	10. New Jersey Department of Labor, annual dues, 1920 and 1921	100.00
	16. Illinois Industrial Commission, annual dues, 1921	50.00
	Connecticut Workmen's Compensation Commission (one-fifth annual dues for 1921 sent by E. T. Buckingham)	10.00
	19. Ohio Industrial Commission, annual dues, 1921	50.00
	23. Nevada Industrial Commission, annual dues, 1921	50.00
	Hawaii Industrial Accident Boards (counties of Kauai, Maui, Hawaii, and Honolulu), annual dues, 1921	50.00
	28. Oklahoma Industrial Commission, annual dues, 1921	50.00
Sept.	8. Unexpended postage fund	2.29
	Total	4,226.94

DISBURSEMENTS.

1919.		
	Postage and telegraph fund	5.66
Oct.	3. Dominion Regalia Co. for badges, seventh annual meeting	36.00
	Miss Ethel McFarlane, honorarium for services performed in connection with seventh annual meeting	20.00
	7. Geo. A. Kingston to pay the Macomb Press for work done in connection with seventh annual meeting	42.65
	20. Postage and telegraph fund	10.00
	M. T. Waggaman, secretarial and other services	25.00
	E. M. Taylor, stenographic and other services	28.20
	Royal Meeker, honorarium	300.00
Nov.	8. Tax on $50 check from Ontario Workmen's Compensation Board	2.06
	11. Gibson Bros., printing letterheads and bills	37.25
Dec.	20. A. G. Newall Co., reporting seventh annual meeting	317.50
	22. E. M. Taylor, stenographic and other services	5.20
Mar.	26. Postage and telegraph fund	10.00
Apr.	13. Gibson Bros., letterheads	17.50
June	7. E. M. Taylor, stenographic and other services	8.00
July	1. E. M. Taylor, stenographic and other services	3.60
	6. Gibson Bros., printing 200 bills	4.50
	24. Postage and telegraph fund	5.00
Aug.	24. Gibson Bros., printing programs	29.50
Sept.	8. E. M. Taylor, stenographic and other services	8.00
		915.62

Sept. 8. Balance (bank deposits, Liberty bonds, and postage and telegraph fund)	$3,311.32
Total	4,226.94

Respectfully submitted,

CHARLES H. VERRILL, *Secretary-Treasurer.*

SEPTEMBER 8, 1920.

Mr. VERRILL. The balance now on hand, according to this statement, is $3,311.32. It should be said, of course, in explanation of this large balance, that the principal payments which the association is required to make, payments incidental to the annual meeting, will have to be made within a short period following the meeting, so that the balance at the beginning of the year is perhaps a better indication of the real excess of resources over obligations than the present balance.

Mr. KINGSTON. I think it is usual, upon receipt of the treasurer's report, to refer that to an auditing committee, to report at a later business meeting of the association. I move you appoint such a committee.

[The motion was seconded and carried.]

The CHAIRMAN. The chair will appoint Commissioner Clark, of Ohio, Dr. Donoghue, of Massachusetts, and Dr. Thompson, of Oregon.

The next business on the program deals with what is supposed to be the response of the president to the speech of welcome to be given by the governor, but the governor was here this morning and delivered his speech of welcome, so that part of the program will necessarily have to be omitted as far as the governor is concerned. Nevertheless, as president I can assure you that the Industrial Accident Commission of the State of California is extremely glad to welcome each delegate and each visitor and the ladies some of the delegates and visitors have brought with them to San Francisco. We believe we have a city well worth visiting and that you all think that already, and hope that, as the governor stated this morning, when you return home you will be extremely anxious to come to San Francisco again, perhaps not merely as a visitor but as a permanent resident. That is the usual program adopted by our eastern visitors.

THE TREND OF WORKMEN'S COMPENSATION—A GLANCE AT COMPENSATION HISTORY, PAST AND PRESENT.

BY WILL J. FRENCH, PRESIDENT, I. A. I. A. B. C. AND CHAIRMAN, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

The seventh annual convention of the International Association, in session in San Francisco from September 20 to 24, 1920, is noteworthy because it completes the first 10 years of compensation history in the United States and Canada. Just 10 years ago, in 1910, the famous Ives case was decided in New York, right after the enactment of the first compulsory law. The outlook was dark at the time when that law was declared unconstitutional. Elective compensation came into existence all over the land to meet the New York court's objection to compulsory compensation, to be quickly followed by amendments to State constitutions to permit of the more complete method.

Those of us who have seen the development of the compensation idea from its birth to its present lusty state recall with what fear and trembling we awaited the decisions of State supreme courts. The main question to be decided was whether the new progressive step in the relation of men to industry would be considered superior to so-called property rights. It was not long until the new day was ushered in and court after court added to industry a legitimate cost—some interest in and care of those men and women who contribute so heavily that business may carry on.

Facing this new decade it is advisable to indulge in retrospection. Having done this, we should set our faces toward the coming days and determine upon consolidation of past gains, to the end that justice may be firmly established.

It is not my purpose to spend time in citing the numerous decisions of past years. That would be a task, indeed. Practically each compensation State has had to have its law passed upon by its supreme court, and time forbids an analysis beyond that given in the opening paragraphs. The work and need right at hand are more important, especially when it is remembered the roll of honor now numbers 52 or more compensation jurisdictions in the United States and practically all of the Canadian Provinces.

I.—LEGISLATIVE DEVELOPMENTS IN WORKMEN'S COMPENSATION MATTERS.

A. The most important recent legislative development of workmen's compensation legislation is in extending the benefits of compensation acts to include vocational reeducation and rehabilitation of men disabled in industry. Earlier legislation included only a percentage of wages to an employee while temporarily disabled, or a sum of money computed according to various methods for permanent disability. The responsibility of the State ended when the money was paid the workman, and but little supervision followed to de-

termine whether the benefits would be applied in such a way as to improve the earning capacity or economic position of the crippled worker.

One of the great benefits derived from our recent war experience has been the development by the United States Government of plans for reeducating and rehabilitating soldiers and sailors crippled in service, and the lessons and experience being developed by the Federal Vocational Board are now being applied under workmen's compensation acts to the rehabilitation of men disabled in industry.

In the industrial rehabilitation act, recently passed by Congress, Federal financial aid is now afforded the States if they will participate in relieving crippled workmen. This work properly belongs with industrial accident boards and commissions, as they are more closely in touch with industrial injuries than any other agency of the State to which the expenditure of funds for this purpose may be intrusted.

Without waiting for the industrial rehabilitation act, a number of States, notably California, New York, Massachusetts, Illinois, Pennsylvania, New Jersey, Minnesota, and Oregon, have proceeded independently to provide for reeducation of injured workers. In some States a State appropriation is made available for this purpose. In others a State appropriation, to be united with the Federal appropriation under the industrial rehabilitation act, is now being proposed. In others, the imposition upon industry of the burden of rehabilitating injured employees under the provisions of the compensation acts has been adopted upon the theory that the burden of rehabilitation is as much an industrial charge as that of paying the older forms of compensation. In all States the money raised for rehabilitation is put into a special fund to be expended by the proper State authority, under wide discretionary powers, similar to those exercised by the Federal Board for Vocational Education, instead of being awarded to employees by specific statutory direction.

I can cite California best in this respect because of my natural familiarity with the law here. The last legislature enacted a law that provides that in case of the death of an unattached man, a man who leaves no dependents, there shall be paid into a special fund the sum of $350. We asked the legislature for more than $350, and for different purposes, but as is not uncommon among legislatures, we did not get all we asked for, so we are now working on the plan that gives us $350, and quite a sum of money has been accumulated, I am sorry to say, because it represents so many deaths, and out of that fund men are being trained in this State at this time. We have for instance, at the State farm at Davis men who are learning scientific methods of farming, poultry raising, and fruit growing. We have men studying at our business colleges in San Francisco and in the city of Los Angeles, and men who are learning new occupations, such as watch making and engraving, and other occupations that men can learn without having to use all the faculties, all the physical faculties, they did prior to injury.

It is to be hoped that with the Federal aid now offered each State will proceed promptly to exert its full powers for relief along this new line. To give a crippled employee money for his physical loss and turn him loose upon the State without restoration of earning

capacity is nearly as bad as to do nothing whatever for his injury. To restore him to useful earning capacity and citizenship by wisely planning his reeducation is a service almost as useful to society as that rendered by earlier workmen's compensation acts in their entirety.

B. Is not the next legislative development in compensation matters indicated by the foregoing? If the rehabilitation of crippled employees is important, why is it not equally important to provide for the establishment of earning capacity of widows and minor children where the father and breadwinner of the family is killed by industrial injury? At present the death benefits allowed in industrial-accident cases provide only for bare subsistence of the family for a limited period of time. The dependents are left to their own resources without more than bare subsistence, in the development of earning capacity, and this without the guidance of the former head of the family. Would it not be well to consider the expansion of rehabilitation to include these classes of dependents?

C. Another important development in recent legislative activity is the creation of a fund for general compensation purposes based upon a payment by the employer or insurance carrier to the State of a specified sum of money where an employee is killed by industrial injury, leaving no dependents. The sum thus assessed varies, I believe, from $100 to $1,000 in different States adopting this type of law. The primary purpose of such legislation is, of course, to raise a fund to be disbursed for useful compensation purposes. Usually such fund is devoted to the reeducation and rehabilitation of employees crippled in industry.

Apart from the purpose for which such funds are disbursed, the method of raising the fund by itself performs a useful service. If an employer must pay a heavy death benefit where an employee is killed who leaves dependents surviving him, and escapes with a nominal liability if there are no dependents, an economic tendency is inevitably created toward discrimination against married men or those having families dependent upon them for support. The imposition of a liability upon the employer in death cases where there are no dependents, to be used for general compensation purposes, tends to equalize the employer's liability and thus to check any possible discrimination of this nature. Furthermore, the imposition of such liability is an excellent method of uniform assessment upon employers for general compensation purposes, such as rehabilitation, welfare work, or support of the industrial accident board or commission, which purposes could not be accomplished by specific benefits direct to injured employees or their dependents.

D. Some tendency is noted in recent legislative matters indicating a possible swing toward more compulsory and monopolistic State funds. This is, of course, resisted bitterly by stock and other private insurance carriers. Recent investigation of State funds, such as that just reported by Miles M. Dawson, show monopolistic State funds to be singularly economical and efficient in operation, giving better results than even private companies or competitive State funds. This topic is worthy of more extended consideration elsewhere.

E. In several Eastern States legislative changes have recently been made, either by new legislation or by restoration of earlier provisions

which had been repealed, to put an end to direct settlement of compensation claims between insurance carriers and compensation beneficiaries. In investigations conducted by Jeremiah F. Connor in New York and by the New York commission there has been shown a startling underpayment of compensation benefits by insurance companies during the time when settlements in nonlitigated cases were not checked by proper State authorities. Naturally, much difference of opinion exists in different States as to the best way to secure this inspection and approval of settlement. The New York commission believes that its present method of oral hearing of every injury, whether contested or not, is, in the long run, more expeditious, economical, and effective than the checking of written reports. The Massachusetts commission apparently believes that its method of checking payments upon written reports is equally expeditious, with less labor and disturbance of the parties. Doubtless much discussion will develop during the present convention as to the merits of the respective systems.

F. Another legislative development which should be more in evidence than it is, is the extension of workmen's compensation acts to broader coverage of industries. All laws which are limited to extra-hazardous and hazardous occupations should be extended to all industrial occupations, without regard to extent of hazard.

Limitations to employments having more than five employees should be dropped, as an employer in a regular business with less than five employees can just as easily procure insurance as a larger employer. It was failure to appreciate the fact that the obligation of workmen's compensation acts is essentially an obligation to insure employees, rather than an obligation to discharge liability to injured employees, that led to this restriction of coverage. In practically all States farm labor is still excluded, and without reason, except the failure of the agricultural classes of the community to grasp the real principles and economics of compensation legislation and their political strength in the legislatures. Have not the agricultural classes become sufficiently educated by this time to workmen's compensation acts to drop their opposition and to realize that agricultural labor is entitled to the same protection as every other form of industrial labor? In many ways farmers are now beginning to realize through shortage of labor that farm labor must be made more attractive in order to compete successfully with the demand for labor for manufacturing and town and city industries.

II.—JUDICIAL DEVELOPMENTS.

Not much that is new is to be noted in judicial developments in the past year except as regards maritime workers. The main constitutional points involving validity of workmen's compensation have now been thoroughly settled by decisions of the Supreme Court of the United States, notably, New York Central Railway Co. *v.* White (243 U. S. 188, 196), in which fundamental principles of compensation were upheld.

The five-to-four decision during the past year in Arizona Copper Co. *v.* Hammer (39 Sup. Ct. Rep. 553) is somewhat disturbing, inasmuch as it intimates that a minority of the court are perturbed by some matters which we had thought were agreed upon unani-

mously. Probably the minority of the court in the Hammer case do not intend to recede from the principles unanimously agreed upon in New York Central Railway Co. *v.* White (243 U. S. 188, 196). Dissimilarity between the Arizona compensation act, which is neither fish, flesh, nor fowl, and the New York law, approved in the White case, is doubtless responsible for this division of opinion.

As indicated in the Hammer case, the court has yet to pass upon the constitutionality of the workmen's compensation acts which apply to all employments instead of being limited to extrahazardous or hazardous employments. But, as a matter of common sense, it would seem that the observation of Mr. Justice Pitney in the Hammer case that "employers in nonhazardous industries are in little danger from the act, since it imposes liability only for accidental injuries attributable to the inherent dangers of the occupation," would seem decisive. Expanding the learned justice's statements slightly, every industry is hazardous if injuries can occur in the course of and arise out of its operation; hence, every industry to which a workmen's compensation act can apply is constitutionally of sufficient hazard to warrant the application of the law.

In general, greater liberality in construction of constitutional questions in favor of compensation acts is now apparent on the part of the courts. Courts have to be educated like other members of the community, only sometimes more so. This process of education has now resulted in the appellate courts dropping an apparent air of hostility to workmen's compensation acts as new and socialistic legislation, which seems to have characterized some of their earlier decisions.

One of the most pleasing of recent expressions of liberality is contained in the decision of the Supreme Court of California in City and County of San Francisco *v.* Industrial Accident Commission (60 Calif. Dec. 36). Such language as the following: "It is no small matter for one branch of the Government to annul the formal exercise by another and coordinate branch of power connected to the latter, and the court should not and must not annul, as contrary to the constitution, a statute passed by the legislature, unless it can be said of the statute that it positively and certainly is opposed to the constitution," betokens an aroused sense of greater responsibility by the courts in such matters.

The case just quoted is one in which an award of compensation to a widow of a hospital steward, who died of influenza contracted in the hospital during the recent influenza epidemic, was held to come within the provisions of the compensation act and of the State constitution, and thus the interpretation that the word "injury" includes occupational diseases was firmly established.

Another decision involving a liberal construction of the compensation clause is that of the United States Supreme Court in New York Central Railway Co. *v.* Bianc (40 Sup. Ct. Rep. 44), in which the United States Supreme Court upheld the highest court of New York in holding that disfigurement may properly be the basis of an award of compensation without regard to immediate loss of wages. This decision takes a broad and liberal view of the purpose of compensation legislation to ameliorate the more remote as well as immediate consequences of industrial injury.

III.—JUDICIAL AND LEGISLATIVE DEVELOPMENT.

Under this heading is classed a recent action by the United States Supreme Court and the Federal Congress with respect to redress of injuries occurring in maritime commerce and interstate commerce by rail. The history of this matter may not be amiss to explain the present situation. As to injuries sustained by railroad employees in interstate commerce, the matter was for many years governed by the negligence laws of the various States. In 1906, induced by demands of railroad employees for better protection against injuries and the slowness of the States to improve their labor laws, Congress enacted an improved negligence statute known as the first employers' liability act. This statute largely eliminated the common-law defenses and increased the liability of the railroads to their employees. Although still upon a negligence basis, no compensation law having at that time been adopted in the United States, the law was an improvement over the then existing situation. Unfortunately, Congress undertook to make this statute apply to all employees of railroads engaged in interstate commerce, without regard to whether the particular employee was engaged in interstate commerce or not. This law was held unconstitutional by the United States Supreme Court in the First Employers' Liability Cases (207 U. S. 463), upon the ground that its application to railroad employees not at the moment of injury engaged in interstate commerce was a transgression upon the power of the various States. The second employers' liability act of 1908 corrected this by limiting its application to employees of interstate railroads who were engaged at the moment of injury in interstate commerce business of the railroad. So construed, the law has been held valid. (Second Employers' Liability Cases, 223 U. S. 1.)

Except for the objections of the Supreme Court in the earlier opinion, the later statute is practically identical with the former.

The Federal act, while admirable as an improved negligence statute, is, of course, wholly out of date at the present time, the States in their passage of workmen's compensation acts having far exceeded the relief afforded by the Federal Government by this statute. The great need now is to give railroad employees the same protection under workmen's compensation acts as employees in the more liberal States enjoy. This can be done either by the repeal of all Federal legislation on the subject, leaving railroad interstate employees to the protection of State laws, necessarily divergent, or by the enactment by Congress of a uniform Federal compensation act for railroad employees in interstate commerce. The disadvantage of the first suggestion is that the compensation laws of many States are still inadequate and in a very few nonexistent, so that in some States railroad employees would be worse off than at present. The disadvantage of the second course is that it does not bridge the gap between the injuries sustained by railroad employees in local commerce and in interstate commerce, thereby continuing the same confusion as at present exists between State and Federal tribunals. If a uniform Federal system is to be adopted, it should apply to all railroad employees, without regard to interstate commerce at the moment of injury. This, Congress can not do under the decision of the United

States Supreme Court in the First Employers' Liability Cases, before quoted.

A practical solution eliminating much of the difficulty would be for Congress to enact a uniform Federal measure applicable to employees of railroads in interstate commerce, with a provision that the different State compensation boards and commissions should have concurrent jurisdiction with the Federal courts in determining suits arising under it. Such concurrent jurisdiction is now given by the Federal act to the courts of the different States in negligence cases arising under the Federal act. This would have the advantage, at least, of having a border-line case triable in the same tribunal under either law. In the event the tribunal applied the wrong law, i. e., applied the State compensation act when the Federal compensation act should have been applied, the only result of a reversal would be to correct the decision. The employee would not be thrown out of court and forced to bring an independent suit in a different tribunal, as is the result at the present time if suit be brought before the State board when it should have been brought in the courts under the Federal act, or vice versa.

A more distressing situation is presented with reference to injuries sustained by maritime employees. Originally most of the maritime States having workmen's compensation acts claimed jurisdiction over maritime injuries, and these claims were sustained by the supreme courts in such States. (Jensen *v.* Southern Pacific Co., 215 N. Y. 514; North Pacific S. S. Co. *v.* Industrial Accident Commission, 174 Calif. 346, 357.) Both decisions were reversed by the United States Supreme Court in Southern Pacific Co. *v.* Jensen (244 U. S. 205), in which it was held that the State compensation laws could not, in the absence of act of Congress, apply to injuries otherwise under the admiralty and maritime law of the United States. Thus, as with interstate commerce, conflicts between State and Federal authority, without significance in themselves, were allowed to defeat substantial justice.

To remedy this situation Congress enacted the so-called "Johnson amendment," approved October 6, 1917, affirmatively authorizing the application of State workmen's compensation acts to maritime injuries. This in turn was declared unconstitutional this spring by the United States Supreme Court, again by a five-to-four decision, in Knickerbocker Ice Co. *v.* Stewart (40 Sup. Ct. Rep. 438, 485), the court holding that even Congress could not permit State compensation acts to encroach upon any portion of the field covered by the Federal maritime law. Objectionable as this decision is deemed to be by most liberal-minded lawyers and by persons engaged in administration of workmen's compensation laws, as well as by the maritime workers themselves, this decision is the law of the land, and permanently forecloses any further relief to maritime workers from State laws. The only recourse is Federal legislation.

During the past few months Congress has stepped into the breach in the endeavor again to remedy the situation. As yet it has not accomplished the essential purpose to be gained, but it gives clear indications that it is moving in that direction. In March of this year an ill-advised statute was enacted providing that the dependents of any seaman killed outside the 3-mile limit should be entitled to

have action for damages in the Federal courts. Previous to this time a right of action for death was allowed in admiralty only where given by a State statute.

One of the anomalies of the Jensen and Stewart cases is that the Supreme Court allows the enforcement of State statutes giving a right of action for death based upon negligence but disallows such enforcement of State compensation acts for death. The act of March, 1920, here referred to, supersedes State-created rights of action for death and substitutes a Federal negligence statute in place thereof. By what species of fallacious reasoning this Federal statute is limited to actions on the high seas instead of applying to the whole field of maritime injuries, including the loading and unloading of ships at wharves, it is impossible to tell.

A somewhat better step was taken by Congress when, on June 5 of this year, the Jones bill, relating to the American mercantile marine, was approved. By section 33 of this law, the Federal employers' liability act, applicable to railroad employees in interstate commerce, is extended to cover seamen. Why it was not extended to cover stevedores as well as seamen is a mystery. At the present time, however, sailors are receiving the rather antiquated relief of the Federal railroad statute, which is better than nothing.

A uniform workmen's compensation measure was introduced in Congress three years ago by Senator Johnson, of California, at the request of the organized seamen, but failed of passage. For the last two years this bill has been resting with the United States Shipping Board, awaiting its approval or disapproval before introduction. After the decision of the Stewart case in May of this year, Senator Jones, of Washington, presented in his bill the provisions above described, extending the Federal railroad act to seamen. This brought forth from the Shipping Board an immediate approval of the uniform Federal compensation act. It was too late to insert such measure in the Jones bill at this session, and the matter went over with the temporary relief above described.

At the present time a number of organizations are working upon a uniform Federal compensation act for seamen, principally the organized maritime workers and the American Association for Labor Legislation. In view of the fact that the Republican platform this year declares for such measure for all maritime workers, and the Democratic platform likewise, limited, however, to persons engaged in loading and unloading ships (why the Democrats did not grasp the real nature of the situation has not been disclosed), speedy action by Congress is looked for at the next session. The International Association can assist materially in gaining this protection to maritime workers. In view of the fact that maritime workers and railroad employees in interstate commerce are at the present time linked together in the Federal employers' liability act by section 33 of the Jones bill, it would seem propitious to have the proposed Federal compensation act apply to both in the same measure.

The most important provision which can be suggested, apart from the usual compensation provisions, is that the boards and commissions of the different States should be given concurrent jurisdiction with the Federal courts to enforce the proposed Federal statute. If a railroad employee or seaman in a border-line case brings suit in

the United States courts when he should have sued before the State board under the State law, or vice versa, at the present time his just claim is likely to be entirely defeated, because he made a mistake in suing in the wrong court. Concurrent jurisdiction, so that the employee can sue before the State board under either law, is necessary to avoid this conflict.

The CHAIRMAN. We will proceed now to the regular program, dealing with industrial rehabilitation. The first speaker is Commissioner C. E. Gleason, of the Massachusetts Industrial Accident Board; the subject, "Industrial Rehabilitation."

INDUSTRIAL REHABILITATION.

PRACTICAL RESULTS OF REHABILITATION IN MASSACHUSETTS.

BY CHESTER E. GLEASON, MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

From the foundation of the industrial accident board, now called the Department of Industrial Accidents of Massachusetts, individual members of the board have been interested and engaged in rehabilitation. In the board meetings the subject has been discussed for years, for it was soon realized that the mere payment of pecuniary benefits to the disabled of industry did not discharge in full the debt of society to the crippled man. After the expiration of the compensation period the injured man must, of necessity, attempt to take his rightful place as a workman. Just to the extent that he fails in his attempt will he reflect discredit upon insurance or industrial methods. Wanton waste consists in creating a scrap heap, whether it be of material or of unutilized human effort.

In 1915 Dr. Francis D. Donoghue, medical adviser of the board, made a special investigation in Europe of rehabilitation needs and methods. In the third annual report of the board, covering the work for the year 1915, Dr. Donoghue makes a report of his studies, and says in part: "In Massachusetts alone in the course of a year the permanent partial injuries cause a small army of workingmen to be added to the list of permanently unemployed, at a cost not far from one-half million dollars annually." This cost finds its way into the insurance rate, which in the last analysis goes into the cost of production of the commodities which labor makes and the public purchases. The reclamation of the injured of war was designed not only from a humanitarian standpoint, but from an economic need to conserve man power. While this kind of work was done by board members from the beginning, the efforts were unorganized and no definite achievements could be recorded except in individual cases.

Early in 1918 an agitation was started for concrete legislation on the subject, resulting in the passage on May 28, 1918, of chapter 231, General Acts of 1918, creating the vocational training division. A director of the work was put in charge in October, 1918, and the division organized—the first of its kind in the United States.

The experience of the division has been limited to 20 months. The work was, of necessity, somewhat experimental in character and had to be built up slowly in order to avoid the dangers of overexpansion and the reaction which comes from an attempt to carry out plans not based upon proper fundamental principles, developed by actual test and trial.

The division has studied and dealt with 416 cases, of which number 273 represent individuals who have been given more or less training and placed in remunerative jobs. The average age of those dealt with exceeded 40 years. They had been out of employment for an average period of more than one year, thus presenting a new problem

in rehabilitation programs. No such collection of cases has been dealt with by any other similar bureau in any part of the country.

In addition to the numbers above there have been 450 cases, a record of which has been made in the division, but in which the individuals worked out their own destiny, with advice merely; that is to say, they secured their own jobs, either by their own efforts or through the efforts of their friends or through the efforts of the insurance companies. Many of these are improperly placed, and as soon as there is a slackening of the present high demand for labor they will probably be forced back for further consideration along some expedient lines.

The division started its work upon the assumption that its results should be more lasting than those that could be obtained by the ordinary employment bureau. In other words, it was determined by the director that the employment bureau of itself, without any attempt at common-sense placement, would prove of little value not only to the individual, but to the employer and to the Commonwealth. As support for this conclusion the United States Government found that the free employment service could not function properly in handling the handicapped.

During a labor shortage it is easy for the employment bureau to pile up records indicating its ability to connect men with jobs, but, as a matter of fact, it is nothing more nor less than a sort of industrial job exchange, where a man is put in touch with a job without any regard to his fitness for it and without any regard as to whether he would in the end prove a satisfactory employee. This method can never be of great service to the community, or at least this is the conclusion reached by our director after an investigation of the operation of such bureaus. It rather promotes misfits than otherwise, and it has been said that the private bureaus increase rather than decrease labor turnover by reason of the fee system, which is inclined to encourage the man leaving one job after a few months to accept another position with a slight increase of pay in order to secure another fee for the bureau. This is not a statement based upon definite facts, but is merely mentioned in order to indicate the weakness of such an attempt to deal with the handicapped.

On account of the small size of the appropriation made by the general court for carrying on this work it was assumed that the legislature intended that the work should be in the nature of planting seed rather than of gathering fruit. Intensive rather than extensive cultivation of the idea and a development of a plan which could be applied to a larger program were evidently the purpose behind the legislation.

The New England method of doing business is apparently based upon this fundamental principle of a practical success which is to begin in a small way and determine those things that are worth while before attempting a large program. In this way the failures resultant from overexpansion of theories can be and are avoided.

The test of work of this character is whether the men make good at the jobs, and the longer they stay after being once placed the greater the success, provided, of course, the man secures the right kind of opportunity with increased pay. We do not count pay as being a measure of success; it is rather the contentment of the man and also his ability to please himself and his employer in his work.

That such work is practical is evidenced by the fact that a great many insurance companies have been interested in rehabilitation and reconstruction programs, and have found it profitable to add to their staffs persons who will attempt not only to secure jobs, but also to secure the right kind of jobs.

It is natural that the insurance company should be skeptical in regard to this character of work and feel that it would be wiser to await the final conclusions. In other words, they would be impressed by a few successful cases and upon these cases as examples could build real programs. We believe that their attitude along this line is correct.

The States of California, Illinois, Indiana, New Jersey, New York, Pennsylvania, Wisconsin, and Oregon have adopted rehabilitation programs since Massachusetts took the initial step.

It may be said in passing that we have never had any printed document which we could send out. The plates have been prepared for an illustrated pamphlet, but in view of the fact that the work of the division was ahead of the annual report of the board it was not thought wise to incorporate it in the last year's report. A chapter in the forthcoming report will give a summary of results thus far accomplished.

This work must, of necessity, be guided by educational principles, even though in our opinion it can not properly be connected up with existing educational systems and institutions unless they are radically changed. The division has attempted the education of employer groups as to the necessity of more attention to the handicapped man. We conceived it to be the duty of a State department or division to confer with and counsel employers as to how they might cooperate on such a large work.

All the sanitation can not be done by the State board of health. Its chief function is to educate the people as a whole how to adopt sanitary methods in their own daily lives and such work is of the utmost practical importance; in fact, the more thoroughly such educational work is done the better will be the results.

Rehabilitation is applied common sense based upon special knowledge of the capacities and incapacities of the injured man for work, and frequently the employers can do this better than anyone else, yet they should have some central State office where information as to latest methods can be obtained and counsel as well as assistance given. Such service is provided in agriculture, animal husbandry, prevention of accidents, fire prevention, charities, mothers' aid, education, etc., and rehabilitation programs should give the same service.

The division has collected a vast amount of pertinent information relative to the possibility of employing various types of handicapped men. It was necessary to back up the opinion of the director to the effect that no regular charting of jobs could be done. At considerable trouble the division made analyses of the physical requirements for particular jobs. These studies are of practical value in eliminating waste motion in sending men to jobs unfit for them.

In addition to this work the division attempted to ascertain the present status of the handicapped men who are employed in industry. It was deemed advisable to find out what they were and are doing of their own accord. To do this, blanks were sent to manu-

facturers to ascertain which employed handicapped labor and which did not, and what each handicapped man was doing in industry. The replies were studied and tabulated. From them we learned that to secure a crippled man merely a job or to force him to accept a job dependent upon the good will of his employer means in many cases a "pension" for the man or "pocketing" him in some nonessential job and by this method forcing him to become an object of enforced philanthropy.

Rehabilitation does or should begin at the bedside of the injured man. There is no sharp line of demarcation between inability to work and restored ability. There is strong need for practical advice and cooperation along known lines of success with nurses, schools of occupational therapy, and social-service workers in hospitals and after-care work. To inculcate practical methods in this kind of effort the division has studiously worked with and visited schools of occupational therapy and classes in employment management from which come the field workers most likely to reach the injured man before his mind has hardened against work.

At first the ideas of the division were slow to take root and the near-medical seclusiveness of the professional worker made it difficult to get a practical turn to the curative shop work, but this summer the School of Occupational Therapy, under our advice, is attempting, at great expense to a few enthusiastic clinic-working girls and teachers, to try out the plan in the Sloyd Trade School. Several insurance companies are much impressed and have paid $50 fees in each case sent as a subject for the experiment. The plan sounds good—the only question that remains to be answered is whether the methods employed will be worked out so as to get away from the hospital laziness so easily acquired. However, from such efforts practical knowledge of vast importance is obtained.

By the Fess-Kenyon Act the United States Government has undertaken to encourage the work of rehabilitation on the part of the States by granting a limited subsidy for certain purposes on condition that an equal amount be appropriated by the State. This plan properly relieves and assists the State in assuming the duty of dealing with injured foreigners and the migratory workman.

In our work we have sought to educate the public to an appreciation of the economic value of utilizing the residual functions of the handicapped man. This is of utmost importance and the division has been most successful along this line. We find that it pays to teach the public as well as the injured man and his employers how they can serve each other to mutual profit. By this method many men secure jobs without coming to us for assistance. Some of the most notable instances we have encountered have been cripples inspired to apply for work by reading of the success of others similarly handicapped. The publicity given to cases of successful employment of injured men often inspires an employer to try out the plan in his own workshop.

As a result of our experience in this work during the past 20 months, we have found that the work should be approached along four steps, one following the other:

First. We attempt, if possible, to get the man back on his old job. We hope that he can do this himself. It frequently becomes

necessary to make some readjustments at the job, and perhaps a short period of training is necessary on the job.

Second. If the man can not be placed on his old job, then we attempt to work out something in a job allied to the old one; that is, any job where his previous experience can be used as a basis for new skill on the new job. In this particular division of the work it becomes necessary at times to work out a brief period of training, mainly to get the man back into the habit of work and to disclose to him the fact that his handicap is not so serious as he thinks it is.

Third. If we can not get the man back on his old job and can not get him into a new job allied with the old job, it becomes necessary to work out some entirely new proposition for him, and in many cases this can be done without training, and merely by suggesting, through a fund of experience, such positions as can be found to fit the man, and later which the man can be made to find himself. But there are particular cases where the man must be trained specifically for the job. When this becomes necessary, we try to take the most direct, short-cut way to connect the man up with the job. We do not attempt any culture training or any general education. The job is simply to put the man at once in some work that he can do. In order to accomplish this, it becomes necessary to give him a small amount of preliminary acquaintanceship with the job. Unfortunately, there is no institution prepared to do this at present. No school can do it, and our possibilities of work are very much narrowed by the fact that it is not always easy to influence an employer to undertake the training of a man for a new job who has been handicapped on some other job. This is not to be wondered at, in view of the intense competition between employers engaged in similar lines of effort, and because of the necessity, under modern conditions, of the utmost efficiency, if any business corporation is to continue to be successful.

Fourth. If the man can not be placed on his old job, or retrained for it, can not be given one closely allied to it, or trained for one, and can not be placed directly into a new job through some short course of training for adjustment, and if he meets the requirements which are to be taken into consideration in each individual case, then it may become necessary for the benefit of society, as well as of the man, to give him some extended vocational training. In this last division we presuppose that the man has abilities that are worth training, and that when he secures this training he will have attained that degree of skill in work which will make him more efficient than he would have been without the training, and so much more efficient that he can pay good dividends upon the cost of the training by his productive effort with such functions as remain.

Finally, it may be said that the policy of the board has been to keep its vocational work along sane and practical lines, with a definite, paying job for each handicapped man as the goal, and placing as little weight as possible upon the methods by which this goal is attained.

This gives a running story of our work. We do not claim to have solved the problem or to have any patent ideas for success. Our aim has been to be suggestive and helpful in our humble way.

I have posted on the wall a series of photographs and forms used and collected by our division, with a brief description of interesting

cases, with the hope that some suggestion may be gained for the good of the cause.

I have not attempted to give the final plans of our division because the whole subject is being studied by a special commission made up of the commissioner of education, the commissioner of labor and industries, and the chairman of our board, which will report to the next general court.

Our policy has been one of study, experiment, test, and trial, with the hope that our results may be combined with the accumulated achievements of other jurisdictions and the sum total thus obtained fused into a well-grounded, workable scheme, which will make each handicapped man—

"*An independent, self-supporting, self-satisfied, and employer-satisfying social unit.*"

The CHAIRMAN. As a break in the program the Chair will suggest at this time that we see the moving picture that was made in behalf of the California Industrial Accident Commission as a result of the association with the commission of Elmer M. Shunk. Mr. Shunk is a young man who years ago lost both of his hands, and you will see on the screen examples of what a man can do who is thus seemingly seriously disabled, and yet you will agree, I think, at the conclusion of the picture, which will only take a few minutes, that there isn't much that most of us can do with two good hands which Mr. Shunk can not do without any hands at all.

[At this point the moving picture was shown.]

The CHAIRMAN. You may be interested to know that Mr. Shunk, who is with us this evening, will tell you for a few minutes of his work, and will pass around some articles which he has made completely in a wood-working establishment in this city. The safety department of the commission has the custom of sending up the blanks which have to be filled out as to name—take, for instance, an elevator permit or boiler permit that has a blank line for the name of the owner or lessee or employer to be inserted; it is sent up as a matter of course for Mr. Shunk to fill in, mainly because he can write so plainly that there is no misunderstanding as for whom the permit may be intended. That is an art in itself. I have great pleasure in introducing to you our associate on the commission, Mr. Elmer Shunk, whose work deals with the work which we have before us of industrial rehabilitation.

Mr. ELMER M. SHUNK, of the California Industrial Accident Commission. I have some work here of wood cutting. This work was completed after the pictures were taken. I will pass the woodwork around and you can look at it. The first is a picture frame I made. You saw me operating the steering gear of the automobile. This is a steering gear I made for myself. I made my own drawing, cut my notches where my arm fits in. I can steer the automobile with one arm just as well as a man can with one hand, and have the other arm free to shift gears. This is a little souvenir piece of work, what I call a shaving mirror. The mirror can be turned in any position you wish. I have also some specimens of my penmanship.

I find in reeducation work the biggest thing we encounter is the mental attitude of the injured man. If it can be overcome and the man satisfied that there is a chance for him to succeed in life, his

reeducation problem is very easy. Reeducation, in my opinion, is not completing the business; that is by proper placement. If you merely give the man education and do not get him the work he will probably get in somewhere where he would not make a success. Therefore I think there should be a placement bureau in connection with reeducation departments.

I think this picture will give you an idea of reeducation, although it was very easy in the picture. But some of those problems were very hard to solve in the beginning. For instance, the first time I tied a necktie it took me five hours. The first time I tied my shoe was when no one was around and I had to tie it. I didn't time myself, but it took me somewhere around three-quarters of an hour. Various other problems I accomplished when I had to, when there was no one around. After succeeding with a few of these things, I made up my mind I could succeed in doing anything anyone with fingers did.

The CHAIRMAN. I think you will agree with me that Mr. Shunk's contribution made a very entertaining and instructive break in our program. There are several speakers to follow, and the Chair wishes to announce that the policy of this international association is that papers that are printed and are available for the delegates and visitors, as they are here at the outside table, shall not be read at these sessions. A man who is on the program may summarize his paper or add to it or comment on it in any way he deems best, but in order to save time and in order to have a better representation, the Chair will have to decide that papers can not be read this evening or at any following session. That policy was adopted at either the last conference or the conference before.

The next speaker comes to us from the State of Oregon, Commissioner Will T. Kirk.

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INDUSTRIAL REHABILITATION IN OREGON.

BY WILL T. KIRK, COMMISSIONER, OREGON INDUSTRIAL ACCIDENT COMMISSION.

In approaching the subject of industrial rehabilitation in Oregon, which has been assigned to me, I appreciate the fact that I am entering a new field of endeavor on the part of the industrial accident commissions, and our opinions of to-day may be changed by our experiences of to-morrow. As a matter of fact, we entered upon this work in Oregon with very few preconceived notions and were free to form our opinions as we progressed in experience.

Industrial rehabilitation had a very happy inception in our State. In the fall of 1919, when the cost of living was daily proceeding on its flight to the skies, our commission was in receipt of letters from many claimants protesting against the inadequacy of the compensation payments. The matter was taken up with the governor, who decided to call a special session of the legislature to meet the situation. A committee of 15 was appointed to make recommendations to the legislature. This committee consisted of five men selected by the employers' organization, five selected by the State Federation of Labor, and five selected by the governor to represent the State at large.

When this committee met it easily disposed of the main question by recommending a flat increase of 30 per cent in all compensation payments. A member of the labor group then proposed a law providing for the vocational rehabilitation of industrial cripples. His proposal met with the unanimous support of the committee. A bill was drafted and presented to the legislature, which passed it without a dissenting vote. This bill authorized the industrial accident commission to set aside from its funds the sum of $100,000 for the purposes of the act and to add to that fund 2½ per cent of its monthly income. The bill is very brief, consisting of five short paragraphs, and gives the commission broad powers to formulate its own rules and regulations for the vocational rehabilitation of the men coming under its jurisdiction.

EMPLOYERS AND WORKERS COOPERATE.

With such a favorable beginning and with no strings attached to hinder our operations, if the commission does not make a success of the undertaking it will not be due to fault of the law. The same unanimous support which was given the law at the beginning has been shown throughout our brief experience. We have had occasion to go to the employers for cooperation, and have met with a favorable response every time. We have gone to the labor organizations for help and have received the same friendly support.

As this work is new to nearly all of us, I feel justified in discussing details of organization and procedure which otherwise might be tire-

some. My purpose is to discuss points which will interest those who want to see the inside, who want to get a close-up view, of what we are trying to do. It is such points which interest me when I have opportunity to gather information about the work of other commissions.

The Oregon commission has its work segregated in three departments. One department takes care of the auditing, bookkeeping, and the work connected with the collection of the contributions to the industrial accident fund, as our State has an exclusive State fund; another department takes care of the claims for compensation, and the third department handles the statistical work. Our commission has three members, so each commissioner is assigned to a department, in which he specializes. The commission as a whole retains full jurisdiction and control over the work of all departments, but with each commissioner giving especial attention to the work of his own department we find the work is more closely supervised than it could be if all three commissioners were trying to direct all three departments.

ALL RED TAPE CUT OUT.

The work of vocational rehabilitation naturally fell to the claim department and became the subject of my particular study. My previous experience in the newspaper field taught me the value of simplicity and direct methods, and gave me a lasting prejudice against anything which resembles "red tape." So you will find no red tape connected with our vocational rehabilitation work. We have sought simplicity, and our experience proves beyond doubt that it pays. We did not begin the job by devising a multiplicity of forms and blanks and reports and other material which would bewilder the minds of the men we sought to aid and make them think they were being invited into a mesh from which they might never become extricated. We prepared a simple questionnaire and forwarded it to the men we deemed eligible for consideration for retraining. This questionnaire contained no complicated questions, but could be easily filled out by a boy in the fifth grade at the public schools. No other forms or blanks were prepared in advance, as we decided it would be better to wait until the need arose and then prepare the form that would fit the exact need. This method of procedure has caused no delays in our work and has enabled us to adhere to our plan of simplicity.

After the questionnaires were sent out we employed Prof. Frank H. Shepherd, head of the department of industrial education at the Oregon Agricultural College, as director and adviser for the men. We were extremely fortunate in securing the services of a man who has had such a varied experience as Professor Shepherd in trades and industries. He is a genius in his line and we are glad to give him much credit for the smooth manner in which the work is progressing.

Our vocational rehabilitation law became effective January 17, 1920. On March 8 the first group of men were assigned to courses in vocational schools, and at least one man entered school March 9. You will see by this that no time was consumed in winding or unwinding red tape. After the return of the questionnaires our prac-

tice has been to fix a day for interviewing and advising with the men. An appointment is made for each half hour of the day, and the men are cautioned to be prompt. At first a considerable percentage of the men did not respond to our appointments, but now that they have begun to find out the work the commission is doing we nearly always have full and prompt attendance. The commission reimburses them for their traveling expenses. Prof. Shepherd and I sit down with each man and discuss with him his individual problems relating to his physical handicap, his family situation, his past experiences as a worker, and his desires and inclinations under the conditions now confronting him. Without fail we endeavor to lead him to make his own choice of a new vocation, pointing out to him the advisability of using his past experience, if possible, as a foundation upon which to build.

HANDICAPPED MEN MAKE OWN CHOICE.

One case will illustrate the futility of persuading a man to undertake training in a trade for which he has no liking. This young man, who was injured while employed in a logging camp, had been a soldier and spent some time in the Hawaiian Islands, where he became infatuated with the music of the steel guitar. He wanted to study music. We did not enthuse over his suggestions and discussed vocations which we thought were more practical. He could not make up his mind, so we suggested that he talk the matter over with his parents, as he was a young fellow in the twenties and not married. He returned later, saying he had decided to go in for auto mechanics. We entered him in an automobile school and assumed that his problem was settled. A week later he called at the office with a decidedly worried look on his face. Inquiry brought out the fact that he had attended school four days.

"I don't like that work," he said, "but I want to do what you folks think is right, and, if you say so, I will go through with it. I think of the music, and that is what I like."

We told him that a good musician was much more to be desired than a poor auto mechanic, and that we would make some inquiries as to the prospects in the field of music. I might add that because of his injuries he could not raise his arms to a level, so there was considerable limitation as to the trades he might take up. But aside from this, his infatuation for music was genuine. Our inquiries convinced us that it would be practical for him to take up the study of the steel guitar with the idea of becoming a demonstrator of stringed instruments in a music house, and we approved a course in music for him. He is now putting in eight hours a day on his music and is making good progress. We believe at the end of a year he will be prepared to earn his living as a musician, and of course his earning power will increase as he acquires more skill with the instrument. If he had taken a course in auto mechanics at a dozen trade schools he no doubt would still have made a failure as a mechanic because of his dislike for the work. I asked him why he decided to take up auto mechanics in the first place, and he said his father had persuaded him that it would be better than devoting his time to music. He said his father did not believe a man could make a financial success in life in any business in which he did not have to use arithmetic, and he was opposed to a musical career.

EMPLOYER HELPS SOLVE PROBLEM.

One of the most difficult cases we have had from the standpoint of feeling confident that a proper course has been mapped out for a man's successful retraining was included in the first group we interviewed. This man is less than 30 years old and had lost his right arm in a boiler explosion in a lumber camp. He had always worked in the woods and the mills, and was unusually timid when associating with men outside of his customary environment. In one of the questions on his questionnaire he was asked to give his first and second preferences for a new vocation. The question was left unanswered. I saw him, incidentally, before the time set for his formal interview and sought to draw from him some idea of his plans and ideas for the future. So far as I could learn he had absolutely none. He seemed to be still dazed from the shock of his misfortune. His employer had shown a keen interest in the young man's welfare, so I invited him to be present with Prof. Shepherd at the time of our interview. The employer came and was of material assistance in planning for the man's future, because the young man himself was like clay in our hands, ready to be molded into any form we might think best. But behind his timidity and apparent lack of ability to make a decision for himself he showed a bright mind and mental capacity.

"Tom has always worked around machinery," the employer said, "and I think he should stick to machinery now. When I go to buy a piece of machinery I can do business much more satisfactorily with a salesman who knows all about the machine than I can with one who does not know the machine and who can not explain about the various parts of the machine or answer my questions. As Tom knows machinery I believe he could make a machinery salesman out of himself."

Tom agreed to do his best. The next day he entered a business college in Portland and will put in seven months on a commercial and banking course. This is preliminary work, giving him some knowledge of business customs and procedure and practices. This fall he is to enter the Oregon Agricultural College to take a special course in machinery and salesmanship. We estimate that it will take about 18 months to complete his retraining and prepare him for a new job. We reminded him of his timidity and pointed out that it would be necessary for him to overcome it. His employer purchased for him a membership in the Y. M. C. A. and advised him to mingle with men as much as possible. When later he enters the vocational department of the agricultural college we plan to obtain living quarters for him in a clubhouse, where he will be thrown into intimate contact with other students. At this time, of course, we can not say what the final outcome will be, but the young man is making good progress in his work at the business college. Prof. Shepherd keeps in weekly touch with him and all the other men who are now taking vocational training courses and helps them over any difficulties which arise.

NO BEATEN PATHS TO FOLLOW.

There are no beaten paths to follow, and no two men present the same problems. All seem different, and if a vocational rehabilitation

law is to meet the situation, those administering it must indeed have authority to devise their own plans for meeting each new situation as it arises. A case in point is that of a young Scandinavian whose back was broken in a shipyard accident. He is paralyzed from the waist down and has lain on a cot in a Portland hospital for 16 months. His attending physician had given up hope of doing anything beneficial for him. He was left to lie on his back or ride in a wheel chair the rest of his life. We sought relatives or friends who might make a home for him, but he had none, and the commission is still paying his hospital bills. Prof. Shepherd and I went out to talk vocational training to him. Before we could interest him in the subject he wanted our assurance that we would have something done for him that would make it possible for him to walk with the aid of crutches. He said if he could only walk with crutches he could do something for himself.

I sent the surgeon who has supervision of the Portland branch of our physiotherapy department out to the hospital to see the young man. After a thorough examination he decided that it would be worth while to make an effort to restore some function to the lower limbs. We are now sending to the hospital each morning a trained physiotherapist who is giving the man daily massage and manipulative treatments. These treatments have been going on for three months and the nurse is very much encouraged. She believes that she will get the man on crutches.

After the treatments were begun the man became much interested in vocational training, and as a result of his talks with Prof. Shepherd and a study of the reading matter furnished him he selected mechanical drawing, drafting, and designing as a profession he could master. In order that he might take up the work at once under as favorable circumstances as possible we had a specially designed table built to fit over his wheel chair. He was provided with instruments and material and Prof. Shepherd is the instructor. When he gets a little farther along we will arrange for an experienced instructor in that line of work to give and supervise his lessons; and when he can get around better he will be in position to take up a complete course in mechanical drawing, drafting, and designing. There is no question about his becoming a competent draftsman, and we are hoping that we will be equally successful in putting him on his feet with the aid of crutches. If nothing else is accomplished we will feel that a great work has been done under the Oregon rehabilitation law.

Some of the hard nuts to crack are found in solving the problems of injured men who have had no schooling. We have one man who was barely able to read and write and to count his money when he received an injury while employed as a sheet-metal worker, which left his wife and five small children in a precarious financial condition. He will never return to manual labor. Our solution for his case was to give him sufficient education to enable him to hold down a job as storekeeper, checker, or timekeeper. As his fellow employees displayed an interest in him we conferred with the chairman of the shop committee, who was in position to speak for the employer in this instance, and we were told that a job as timekeeper or storekeeper would be open for him as soon as he was fitted for it. We

took the case up with the business college and arranged for a special tutor to give the man instruction in English and arithmetic and the rudiments of bookkeeping, with the object in view of fitting him for the particular job we have in mind. The man began his studies at the school the next day and he will make good.

USES EXISTING TRADE SCHOOLS.

In carrying on this work the commission is using the facilities at hand. We are using the vocational and trade schools now established in the State when they offer a course that meets the needs of the particular man, and when they do not we go out into the industries and find a place where the man can get the training he wants, or, as in the broken-back case before cited, we make such special arrangements as will meet the situation. Our purpose is to put the job over and we are not particular about the instrumentalities used as long as the handicapped individual gets the training which will fit him for earning a living for himself and dependents. We have had the heartiest cooperation from the trade and vocational schools and so far have had but little difficulty in finding means for providing the training desired. A man with a badly crushed leg wanted to learn the trade of a vulcanizer, and as there is no school in our State giving such instruction, I placed him as an apprentice in a large vulcanizing shop in Salem and he has learned the trade. While he was learning the trade he drew no wages from his employer and we provided for his living expenses.

Every case emphasizes the point I have endeavored to make, that it is necessary to consider the problems of each man separately. The whole procedure should be as simple as possible, so the men will feel that you have a real interest in their welfare and possess a sincere desire to help them. In practically every case the questions involved are definitely settled and the man so advised at the time of our interview. This makes it possible for those who so desire to enter upon their vocational course immediately after they have made a decision. We encourage the men to bring their problems to us and permit us to advise with them and help them to solve them.

At this time our experience is too young to enable us to discuss results, but I can safely say that if nothing more had been done than to put new hope in the hearts of discouraged men and to restore courage to wives and other dependents, the expenditure of $100,000 originally set aside in Oregon for the vocational retraining of handicapped men would have been well worth while. Men whose future outlook was discouraging indeed are now filled with new life, enthusiastic in their work, and determined to overcome their physical handicaps by thorough preparation for earning power for the future. The actual cost to the State so far has been comparatively little and our original fund of $100,000 is constantly growing bigger.

FINANCIAL AID EXTENDED.

Up to July 1 we had sent questionnaires to 236 men who were eligible for retraining. Replies were received in all but 62 cases. We interviewed and closed without action 41 cases. In 62 cases the questionnaires revealed that aid from the commission was either

not needed or not desired. Twenty-one men we placed were still attending vocational schools. One man had completed his school course. Two men dropped out of school before completing their courses. Twenty-one men were preparing to enter school this fall, and 26 cases were pending.

When a man takes up a vocational course our commission not only pays his tuition and other school costs, but also provides for the living expenses of himself and dependents. Practically all the men are drawing compensation for permanent partial disabilities at the rate of $32.50 per month. To this the commission adds the following amounts:

Single man, $30; total, $62.50 per month.

Man with wife, $55; total, $87.50 per month.

Man with wife and one child, $60; total, $92.50 per month.

An additional $5 per month is allowed for each child up to five children, making a maximum allowance of $112.50 per month. A dependent mother is considered the same as a wife.

These payments are made to the man who is employed as an apprentice the same as to the man who is taking a course in a school. It must be recognized that all men arrive at an age when it does not seem practical for them to reenter school, and their cases should be considered from the standpoint of placement training. When we entered upon this work we tentatively adopted the age of 40 as the dividing line and prepared a questionnaire for the men who were 40 or under and another for the men who were over 40. However, the dividing line is not rigid, as we are free to do the particular thing that will be best for the particular individual. For instance, there is the ex-bartender who is past 40 and yet is one of the most enthusiastic and effective students we have placed in an automobile school. For a number of years before the days of the big drought he tended bar in Portland. When the saloons were wiped out, he obtained a job in a fish cannery and eventually drifted into the shipyards, where he lost a foot. When offered an opportunity for retraining he chose the trade of auto mechanic and has now about finished his course. He took to the work like a duck to water, and the head of the school reports that he will make one of the best mechanics ever turned out of the school.

WHO ARE ELIGIBLE FOR RETRAINING.

It was also left to the commission to determine who should be eligible for retraining. We have tentatively laid down the rule that all should be eligible who have lost 50 per cent or more of the use of an arm, a hand, a foot, or a leg, or sustained other permanent disability of equal severity. In some instances the injured man seems to be getting along very well without outside assistance, yet because he has the determination and pep to go ahead in spite of his handicap this should not operate to shut him out of the benefits offered by the rehabilitation law. He should not be penalized for his nerve and enterprise, but, rather, if retraining will make his future more certain, he should have the same privileges as the man who lays down on the job after he is hurt. We now have a case of this type under consideration. He is 24 years old and suffered an injury to his left

hand while employed in a sawmill. He is taking a theological course in Willamette University, preparing himself for the ministry. He is in the logging camps again this summer, trying to earn enough money to put him through another year at school. Because he is helping himself should we withhold our assistance? Is the ministry a vocation? Is he entitled to aid from the commission under the rehabilitation law so as to make it easier for him to complete his theological course? We think so.

As previously stated, we began this work in Oregon with a fund of $100,000. Up to July 1 we had expended the sum of $2,846.58, segregated as follows: Transportation, $317.68; tuition, $555.11; room and board, $859.90; financial aid to dependents, $291; school supplies, $52.60; employees' traveling expenses, $170.29; salaries, $600. On July 1 we had a balance in our rehabilitation fund of $134,061.05.

The cost is indeed small when compared to what it would undoubtedly cost society in general if this retraining were not provided. Take the case of the broken back again. If this man is not given a preparation that will enable him to earn his living, society must support him, as the pension he will draw from the compensation fund will not meet his needs. Instead of being a dependent and a burden on society the rest of his life, in a few years at most he will be a producer and an asset to the community. It is a work well worth while. It is a work that grips one's interest as one strives to aid the handicapped men to find the proper solution for their problems, as one opens the door which lets in the sunlight upon darkened minds and instills new hope in discouraged hearts.

Before closing I think I should turn the spotlight for a moment upon the other side of the screen. All the cases are not encouraging. We find men who would rather be dependents than make the effort to equip themselves to become self-supporting again. Their interest is centered in the size of the cash payment they hope to get from the commission. They argue that if they had a few hundred dollars in cash they could make their fortune. They haven't time for retraining. It is useless to try to do anything for them, but, fortunately, they are very much in the minority.

The CHAIRMAN. A paper was sent to me by Commissioner Lewis T. Bryant, of the Department of Labor of New Jersey. If there is no objection the paper will not be read but will be ordered included in the official proceedings of this meeting.

INDUSTRIAL REHABILITATION IN NEW JERSEY.

BY LEWIS T. BRYANT, COMMISSIONER, NEW JERSEY DEPARTMENT OF LABOR.

The legislature of New Jersey enacted at the 1919 session an act providing for a rehabilitation commission, to be composed of the commissioners of education, of agencies and institutions, and of labor, besides three citizens to be appointed by the governor, who should be as follows: One surgeon, one representative of business, and one representative of labor. These men were empowered to select a director, to be in direct control of the administration of the act. Under the terms of the law regulating the conduct of this commission, a great deal of thought was given by them in determining the best method of rehabilitating all physically handicapped workers of the State over 16 years of age with the exception of mental defectives and those whose vision is affected. The commission finally determined that this work should be undertaken from a threefold standpoint, namely, physical reconstruction, vocational training, and intelligent placement. It was decided that the best manner of accomplishing these results was to coordinate the work of rehabilitation with the compensation administration and the employment service of the State. To this end industrial centers have been established in the populous centers of the State, at which the compensation hearing rooms, the rehabilitation clinics, and the employment offices are in the same building. In some cases the financial assistance of the municipalities has been arranged.

Under the operation of the compensation laws of the State of New Jersey, all accidents not bringing the injured worker within the scope of the act must be reported to the main office at the statehouse, and the practice has been followed of notifying the injured worker of the amount of compensation to which apparently he is entitled and suggesting that he call at the nearest industrial center on the day when the deputy commissioner of compensation will sit there, for the purpose of ascertaining whether the financial settlement enacted under the statement of facts, which must be signed by the injured worker and the employer or insurance carrier, is a correct compensation for all injuries received. He is also advised that the State surgeon will be in attendance at these meetings to determine whether any improvement in his condition can be accomplished by means of reconstruction surgery. It is the purpose to have the surgeon advise the deputy commissioner on medical and surgical questions arising in determining the adequate amount of compensation, and also to give the petitioner the benefit of the reconstruction surgery practiced under the rehabilitation act. It is our further purpose to have at these gatherings a representative of the training section of the rehabilitation work, so that the problem of the return to industry of each injured worker may be studied by the expert and followed up either by vocational training or intelligent placement of the worker

in the industry which he is physically, mentally, and by past experience best capable of filling. In determining the selection of occupations, the advice of the rehabilitation surgeon is available in order to decide upon a calling which he is physically able to follow. Our plan therefore contemplates, first, the physical reconstruction of the injured worker to the very greatest possible degree; secondly, the giving of such training as his mentality and social obligations will permit; and, thirdly, the placing in such remunerative employment as various handicaps will permit.

In determining this method of procedure, we found that in order to secure satisfactory results it was advisable to have the facilities for physical reconstruction immediately adjacent to the hearing rooms, and we have therefore provided complete clinics at each of the several industrial centers. The original one at Newark is the only one which has been completely equipped at this time, although two others are nearing completion, and arrangements are being made for clinics in two additional cities, to be opened soon after the first of the year.

The Newark clinic is provided with all instruments of precision for direct and differential physical diagnosis, a complete department for orthopedic and reconstructive surgery, consisting of the following: Physiotherapy, electro and mechano therapy, including apparatus for functional reeducation, massotherapy, a department of roentgenology, a pathologic laboratory, an operating room, a plaster of paris room, a dental department and a clinic ward, a reception room, and an administrative office.

Under the New Jersey compensation law, medical aid is limited to $50 for the first 28 days, except "in severe cases requiring unusual medical or surgical treatment or calling for artificial limb or other mechanical appliances" the commissioner of labor may call for an additional amount, not to exceed $200. In cases requiring secondary or orthopedic operations or continuing treatment, arrangements have been made in most cases for the employer or insurance carrier to defray the expenses incident thereto, including the cost of the operation and the required aftercare, which expenses are substantially returned in the reduced permanent disability of the worker.

The commission has made the proposition to the employers and insurance carriers that where an operation is recommended by one of its surgeons, the aggregate cost of the operation and aftercare to the employer or carrier must not be greater than what would otherwise have been occasioned under the application of the compensation law, and if additional expenses are incurred, the difference will be reimbursed from the rehabilitation funds.

We have had in the Newark clinic during the period from October 20, 1919, to August 31, 1920, 757 cases, in different classifications as follows: Treatment, 314; operative, 91; placement, 39; artificial limbs and orthopedic appliances, 60; diagnostic (no rehabilitation), 253. Up to this time there have been no cases where the saving of permanent disability has not been sufficient to compensate for the expense involved.

The chairman of the commission is Col. Fred H. Albee, the well-known authority on orthopedic surgery, who, during the war, was in charge of the surgical and medical administration of the Gov-

ernment reconstruction base hospital at Colonia, N. J. The surgical work is under the immediate direction of Dr. John N. Bassin, chief surgeon of the commission. There has not been a single death or a single case of infection as the result of operations performed in this clinic. The method practiced has been so well received that there is now a demand for the institution of similar clinics in other cities, and the employers and carriers are extending us their confidence and cooperation.

Little has as yet been done in the matter of vocational training, as we believe the first obligation of the commission was to provide facilities for returning the worker as nearly as possible to the maximum degree of health and efficiency. It is the purpose to closely ally the vocational training and placement activities with the several Federal, State, and municipal employment offices, which at this time have a very close connection with the industrial life of the cities in which they are located.

We are considering the installation of an apparatus for vocational therapy, and in addition, taking advantage of the existing trade and technical schools of the State. We may install facilities for elementary training in certain trades before endeavoring to have the workers placed in shops on production.

With the exception of the physical side of our work, it is in a more or less formative condition, but we are hopeful of good results from the procedure we have under contemplation.

The CHAIRMAN. The next speaker we have with us is Oscar M. Sullivan, director of reeducation, Minnesota Department of Education.

INDUSTRIAL REHABILITATION AS CONDUCTED IN MINNESOTA.

BY OSCAR M. SULLIVAN, DIRECTOR OF REEDUCATION, MINNESOTA DEPARTMENT OF EDUCATION.

The outstanding characteristics of the Minnesota system for industrial rehabilitation of impaired workers have been determined by two facts. The first is that the system has been the outgrowth of the workmen's compensation activities of the State. To this is due the close correlation with the work done under the compensation act. To it is also due the general viewpoint on many things—the concept that rehabilitation is essentially a phase, and an important one, of social insurance. The second important fact is that the department of education has been recognized as the proper agency to have immediate charge of the work. This accounts for the emphasis on vocational rehabilitation as distinct from physical restoration, and has reinforced the tendency to avoid features of a public relief nature.

On its administrative side the Minnesota work is a division under the direction and control of the State board for vocational education, which in our State is identical with the general State board of education. The act required a plan of cooperation with the department of labor and industries, to be effective when approved by the governor. The organization was perfected so as to start operations July 1, 1919. For its part the State board for vocational education felt the work to be of sufficient importance and sufficiently different in nature to warrant the employment of a director other than the regular director of vocational education. As the department of education desired to associate in the work as closely as possible the department of labor and industries, which has supervision over the administration of the compensation act, the plan was finally adopted of having in part a joint personnel. Through the circumstance that the chief statistician of the department of labor and industries, who was the executive of the compensation work, was also qualified to conduct educational work, it was possible to appoint him as the director of the division of reeducation. The department of education then, under its agreement, lent him to the department of labor and industries to continue his work in connection with compensation. The proper salary adjustment was made through the department of labor supplying the division of reeducation with a placement specialist. All the employees of the division of reeducation are directly under the control of the State board, yet through their connection with the department of labor, the two just referred to, who constituted all of the staff except clerical help during the first year, are able to insure the smooth working of the agreement to cooperate, and in other ways have advantages which they would not have had as employees of the department of education only.

In connection with the cooperation between the two agencies, the department of labor and industries and the State board for vocational

education, a few of the articles in the plan of cooperation between the two departments may be of interest. The first two articles deal solely with the joint employees in the two departments. Article III is as follows:

The department of labor and industries agrees to advise the division of reeducation and placement promptly of all cases of persons coming to its knowledge who have suffered injuries entailing impairment. The department also agrees to provide the division of reeducation and placement transcripts of such information in compensation records as may be requested. The department further agrees to make through the members of its staff any investigations requested by the division of reeducation and placement and distribute such printed matter as the division may consider a desirable preliminary, provided such cooperative work shall be convenient to the regular course of the duties of the department's employees. In addition the department will have its factory inspectors when they make their regular visits of inspection ascertain what opportunities in employment there are for handicapped persons.

Article IV deals with lump sums:

The department of labor and industries agrees that when it is consulted in regard to the advisability of a lump sum in compensation cases involving permanent impairments it will not take action until it has received the advice of the division of reeducation and placement. The board for vocational education agrees to permit the division of reeducation and placement to make investigations in such cases.

Article V defines the duties on the part of the division of reeducation:

The board for vocational education agrees that it will require of the employees of the division of reeducation and placement that they be well enough informed on the provisions of the compensation law regarding medical and hospital treatment and prosthesis to give suitable advice to seriously injured persons with whom they make early contacts. The board also agrees to permit members of the staff of the division of reeducation and placement to make investigations requested by the department of labor and industries, provided such cooperative work shall be convenient to the regular course of their duties. In order to give special agents of the division of reeducation testimonial powers and qualify them to cooperate as just provided, the department of labor and industries agrees to appoint such special agents as special agents in its service without salary. The board further agrees that the division of reeducation and placement shall keep such records and supply such information relative to disabled persons as the department of labor and industries may desire for the completion of any of its studies on workmen's compensation or the economic condition of the working classes.

Article VI is a general agreement of cooperation:

The board for vocational education and the department of labor and industries agree in general to cooperate in the work of rehabilitation and to assist each other whenever the service asked is germane to the work and not too great an administrative burden. In order to insure the harmonious working of this plan of cooperation and in general to advise in connection with the policies pursued by the division of reeducation and placement, an advisory committee is hereby created to consist of the commissioner of education and one officer of the department of education designated by him and the commissioner of labor and one officer of the department of labor and industries designated by him.

The first question which had to be faced by the division was the general method by which the work should be carried on—should the effort be made to promote something analogous to a central institute, or should a few general classes in particular industries suitable for handicapped persons be started at different points in the State, or should the problem be treated as an individual one to be cared for by the study of individual cases, contracts with existing schools, business establishments, or tutors? The decision was

promptly made that the last-mentioned method would be followed. The standard was also promptly adopted that the attitude of the division should be a dynamic one, not a passive one. It was not enough to take the position that here was an opportunity which the State was offering to its disabled citizens, and that if they did not avail themselves of it the fault was their own and showed that there was no great need for the work. Rather the division took the position that by this legislation the State recognized that the security and highest development of society required that all impaired persons be vocationally rehabilitated to the fullest extent possible, and that every reasonable effort should be used to induce the beneficiaries to profit by what was offered them. The corollary was that a system should be built up which would come the closest possible to insuring knowledge on the division's part of all persons impaired so as to be vocationally handicapped, and that the division should undertake to secure personal contact with each one. This was not so difficult, so far as compensation cases were concerned. It was possible for the director to secure a copy of the accident report in all dismemberment cases, and in other cases to secure a notice at the time when the fact of permanent impairment developed. Outside the compensation cases, however, the problem of securing prompt knowledge has been a very difficult one. Circular letters to hospitals, insurance companies, and labor, civic, and social-service organizations have been helpful, but the surest results will come more gradually from the personal contacts of the division's employees with the agencies referred to and the spread of publicity as the scope of the work increases.

The test of any activity is its actual accomplishments. The Minnesota work has been in existence over a year, and it is quite natural to expect a definite statistical report from it. Before any figures are quoted, it should be stated that the success of a rehabilitation system can not be measured in so short a period as one year. The biggest task in the initial year of the work is the early establishment of a list of possible beneficiaries and the making of personal contacts with them. Out of every five who are eligible for training it will be quite the normal thing for only one to be willing to undertake training immediately. Some who are interviewed and worked with for a considerable time will in the end refuse to accept the proffered education. Others will prove amenable to the advices of the reeducation agents but will postpone the beginning of training. Of those who take training during the first year only a limited number will finish within that year, and these perhaps will not have been at work long enough to give any criterion as to the success of their training. It must be evident, therefore, from these considerations that any statistics of the first year of rehabilitation work are merely a token of what has been attempted and not any genuine measurement of results. With this preparatory statement, which is intended to be explanatory and not apologetic, we are ready to state that during the year ending June 30, 1920, the division of reeducation secured a knowledge of 372 cases. Of this number a careful survey was made in 281 cases. The number approved for training was 132. Those approved for placement without training courses were 41, those who were surveyed and found not eligible or not to require rehabilitation

were 108. Those who were placed under reeducation were 75, and those who completed the training within the year were 53. The training given in the cases represented 31 occupations. The cases reeducated were classified, also, according to general class of disability, as follows: Compensation cases, 35; industrial accidents other than compensation cases, 7; all other disabilities, 33.

What has been said in regard to a statistical statement for the first year of such work applies, also, in connection with illustrative cases. It is rather early to be certain that the particular training given has been a success. The most that illustrative cases at such a time will show is how certain problems were faced. One of the most responsive cases which the division of reeducation handled during the year was its first case—one which had been on file at the labor department during the months which elapsed between the end of the legislative session and the 1st of July. A young picture framer employed by a department store had scraped his thumb on a piece of glass. Infection had set in and he had suffered the loss of the use of his entire hand and forearm. This was an easy case both as to guidance and as to assuring future employment. The man had a taste for business methods and clerical work, and was easily placed in training with a local business college. The department store cooperated in promising employment as soon as he was able to do anything in his new line. Within a few months it was able to employ him, and he changed over to the night courses to complete his training.

In another instance a member of the State board of health reported a painter and carpenter in a small town who had suffered a spinal injury due to a fall from a ladder while painting a tank. He was not under the compensation act, but had been employed by a railroad at the time, so received a substantial sum of money. At the time he came to the notice of the division his medical treatment had advanced so far that he was able to be around and could do lighter forms of work. He took a course in vulcanizing and on returning to his home town opened up a vulcanizing shop in conjunction with his son. Our follow-up report on this shows it to have been successful.

A very interesting case, which is not yet completed, is that of a young Scandinavian who had always wanted to be an architectural draftsman but had never had the opportunity to study for it. While employed in a woodworking line he suffered the loss of a number of fingers of his right (major) hand, together with a considerable degree of impairment of the arm. He was receiving compensation, but not enough to support himself and his mother for any great period of time. It was therefore necessary to get his support assured before he could be started on any course of training. As the young man was found to be reliable, arrangements were made with the insurance company to pay in a lump sum a part of the compensation, so that during the period of training he could have about twice as much to live on as his compensation would have been in periodical payments. The attempt was made at first to give him the training in a public technical high school, as it was thought that he could get along all right there in view of the fact that he was not much older than the ordinary pupils. He did not progress fast enough, however. He had become dissatisfied, and was found to

present such personal differences from the other pupils that it was desirable to change his training. He was accordingly sent to a large technical school, and has been progressing satisfactorily since. This case was noteworthy both for requiring a special handling of the compensation phases and for demanding a very great amount of personal service. Even after entering the young man in the adult technical school it was found desirable to pay the institution an extra amount to secure individual attention for him.

The problem of training for persons who live at points other than the large cities, and who are not in financial circumstances that would enable them to come to the cities which have training schools, is a troublesome one. In one case which the division had of this character the man was rather elderly and had a considerable family of children in school. He lived in a town of 15,000, but the closest city which had a training school in the line which he desired—that of automobile mechanic—was 80 miles away. The reeducation agent found that there were several garages in this town which had a personnel well qualified to give training. The best of these was chosen and a contract made with it providing for monthly payments by the State board in return for definite training along specific lines for the applicant. The garage further agreed to pay the man a definite sum for the work which he would do for it. This helped to solve the maintenance problem, as the man had been injured some years previously and was without means.

Another special type of case was that of a section hand who had lost both legs in railroad work in another State under circumstances which deprived him of any indemnity. He was not eligible for the expenditure of tuition under our State law, but we arranged to give him as good a grade of training as he would have gotten anyhow by making arrangements with a small manufacturer of willow ware. He learned the trade in six or seven months, was paid during the entire time, and now has an occupation which at any time will net him skilled wages.

Another of our interesting cases is that of a young pressman who had gone through the war unscathed. He had been over the top seven times in France, but on his return quickly became a victim of the industrial hazard. He lost all of his left hand except the thumb, and there is a degree of stiffness in that. He has been given temporary employment in a clerical capacity and is being trained as a factory inspector.

An instance in which the division cooperated with a local society for the blind presented the following circumstances. A blind man who had only a very limited training was playing the violin in the streets. The society feared that this would degenerate into a species of begging, and requested the cooperation of the division of reeducation in providing him with a course in violin playing so that he could be fitted for concert work. This was accordingly done, and has been carried far enough so that we are assured the plan is a success.

In helping the blinded miners of the State, the division has also accomplished a much needed work. Here again it had the cooperation of a private society, which had been contemplating the organization of a broom shop in the mining country to employ the blinded

miners, but had found the financial problem too big. When it was assured of a subsidy from the division for the training of men in broom making it found the plan immediately practicable, and the broom shop has accordingly been launched and is giving both training and employment to these men who had been doing nothing but vegetating.

Perhaps some discussion of the attitude of the division toward some of the special phases and problems involved in rehabilitation will be illuminating as to its operations. One problem about which much controversy has centered is that of the relation of vocational rehabilitation to physical restoration. It has been proposed by some rehabilitation advocates that any scheme for reeducating and placing impaired persons should begin with physical restoration and should provide the necessary medical care at the expense of the State. There is a sharp difference in principle here which runs through many other of the problems connected with vocational rehabilitation. On the one hand, advocates of the State's taking immediate control of all elements of the work, and financial responsibility therefor, are not so much concerned with the relation of their system to other systems in vogue in our competitive society as with getting the work started soon and having abundant resources. The easiest and quickest means is a resort to taxation. On the other hand, the opposing school believes that every step should be related to existing social methods. It should be kept in mind that we are not living in a socialized state, but in one which seeks to continue the competitive system shorn of its extreme features; that the method of social insurance promises to be the safest manner of dealing with social ills in contradistinction with the method of public relief, which has always been costly in its outlays and harmful in its effects upon the recipients.

The Minnesota system, being the outgrowth of the workmen's compensation activities, has kept in mind the possibilities of social insurance, and has been careful not to launch practices which would be an obstacle to the later developments in this field. Therefore, the position has been taken as regards medical treatment that it is not of itself a function for the reeducation work. Vocational training of impaired persons is offered at the expense of public funds because it is an educational activity, and it has always been the American policy to encourage education in order to promote equality of opportunity. Similarly, the matter of placement in suitable employments is a public function.

But in the case of medical treatment following an injury no sweeping classification can be made. Those cases which come under the workmen's compensation act are provided with medical treatment at the expense of the employer. There is no longer any dispute that the medical treatment under the compensation act should be complete, and by complete is meant entirely adequate to cure and relieve from the effects of the injury as far as possible. The same session of the Minnesota Legislature which passed the reeducation act amended the compensation law so as to provide full medical treatment. As soon as this amendment went into effect the department of labor and industries sent a letter to all the insurance companies and self-insurers in the State pointing out that the intent of the change

was that every seriously injured person should have the best grade of medical care available in the State, whether this included such specialties as electrotherapy, hydrotherapy, occupational therapy, remedial exercises, and the like, or whether it meant simply a good grade of ordinary hospital care. So, in relation to the compensation cases, the work of the division of reeducation as it touches the physical side has been merely one of checking up the kind of care given, and, if it was not suitable, reporting the matter to the department of labor for appropriate action.

In cases outside the compensation act circumstances vary greatly, but in no instance is it felt to be the duty of the division of reeducation to act in other than an advisory capacity. The work necessarily gives its agents a fund of information along this line and at times enables them to give advice of great help. The principle thus laid down is broad enough to cover occupational therapy also, except that sometimes cases will arise where actual courses of vocational training can be given during the period of convalescence which will also serve as a therapeutic agent. Thus far we have had only one such case, but there will, no doubt, be others. A bricklayer who had been in the hospital for three years as a result of a severe spinal injury had recovered sufficiently so that he was able to be about in a wheel chair and could practice walking a little each day. It was thought that he would be discharged from the hospital within a few months and be able to get along without the wheel chair. As he was of an age and type for which reed work was a suitable vocation, this was proposed to him and he accepted the plan gladly. A tutor was accordingly sent into the hospital to start the training at once. When he leaves the hospital he will be ready to step into a well-paid job.

The answer to the question of whether the State should furnish prosthesis is also governed by the principles given above. In the compensation cases this is provided by the employer as a part of the medical expense. As a matter of practice and cooperation with the department of labor, the division of reeducation follows up all the dismemberments and sees that the proper prosthesis is furnished. In other cases it also acts in an advisory capacity. If the impaired person is without means, it is a special relief problem to be met according to the special circumstances in the case.

The view that maintenance should be furnished by the State during the period of reeducation has been pressed even more strongly perhaps than the demand for State action in any of the preceding phases. It is argued that unless maintenance is furnished the provision for training is barren and the work will be limited to a very small group. So far as compensation cases are concerned, it is alleged that the compensation is not adequate, and that additional grants should be made either out of taxation or out of some fund raised indirectly under the compensation act. The analogy of the maintenance which the Government provides for soldiers undergoing rehabilitation has been forcefully urged. It is forgotten that maintenance is provided for the soldiers because they were Government employees and that the ordinary civilian is not yet considered an employee of the State under any social theory which is widely accepted. If the compensation act is not adequate, clearly the remedy

is not in a system of public relief but in so amending the compensation act that it will be adequate. So far as the compensation cases are concerned, we in Minnesota see no reason for raising the amount necessary for maintenance during training by an indirect method. Our department of labor and industries has recommended that the permanent partial schedule in the act should be so amended that each of the logical elements entering into permanent partial compensation will be accounted for. One of these elements is plainly maintenance during reeducation. The man who suffers the loss or impairment of a member, and has to change his occupation, evidently suffers a greater loss of time than the one who sustains the same physical handicap and does not have to change his occupation. It is logical, therefore, to make an award for the period of reeducation. The law should take cognizance of the existence of the division of reeducation and should make this portion of the award depend upon the division's certificate that the man is under training. If the maximum in the law is such that the ordinary periodical payment will not be sufficient, this clearly is an indictment of the maximum and not of the principle of compensation during retraining.

But it is argued that outside the scope of the compensation act will be found great numbers of impaired persons who will be unable to take training because they can not take care of their maintenance for any prolonged period. The best answer to this is that the division of reeducation has not thus far found any cases of impaired persons needing reeducation which it could not get cared for through some existing agency. In three instances, where the charities were called upon to assure the maintenance, they had already been taking care of the man and his family. In other instances temporary employment was found for the handicapped person and his training given through an evening course. The great bulk of the men prefer evening courses in any event. Most of those covered by the compensation act desire employment and evening courses even though they are in receipt of their regular periodical payments. In other instances the vocational training is placement training and carries with it a sufficient wage to tide the handicapped person over the period of learning. So much for the question of experience.

Now, on the side of principle, does not the same objection apply as in the case where it was sought to aid through taxation what should have been done through the compensation act? Is not the proper solution for the problem a system of social insurance akin to the compensation system but giving a coverage for all disabilities happening outside the scope of the compensation act, both accidents and disease, the cost to be divided among the employee, the employer, and the public? Could not such a system have an award for reeducation similar to the one which we propose for the compensation act? Such, at least, is the conviction of the writer. In Minnesota we already have quite a large benefit-fund system of voluntary origin. The State has only recently taken cognizance of this system by requiring such funds to be licensed, thus bringing to light full information about them and making it possible at times to offer advice in shaping them. We feel that even if there should not be any rapid extension of State standardization to this field, it will be possible to suggest a reeducation award to these funds and have the principle adopted by a considerable number of them.

On the question of whether books and equipment necessary to the training course should be furnished by the State, Minnesota has taken the position that these things are so distinctly educational, and so clearly a part of the training, that they may be legitimately provided. The State retains the ownership of the articles, however. Sometimes the division of reeducation buys the articles directly, and at other times they are made a part of the contract with the school giving the training. This has been particularly true in Y. M. C. A. courses.

Methods of placement have also been the subject of some variation in planning. The division has excellent cooperation from the public employment agencies in the State, which are operated by the department of labor and are therefore under the same commissioner as the compensation service. Nevertheless, we would not feel that the placement for reeducation work could be satisfactorily accomplished through a cooperating agency. This necessarily must be under the rehabilitation service. At the same time the placement should not be made too distinct from the other rehabilitation activities. Very often the advisement agent who arranges the training can attend to the matter of placement more successfully himself than by turning the case over to another person. Nevertheless we have felt it to be a fortunate part of our system that we have had a placement specialist, who has kept up a steady canvass of the field and has made incidental placements previous to reeducation. Placement is an exceedingly difficult part of the work and will often command all the available energy that the rehabilitation service can muster.

Research work is also a very important part of the activities of the rehabilitation agency. A great deal of valuable information will, of course, be secured and recorded through the ordinary operations of the service. The employment opportunities open to the handicapped in any given district, however, will never be thoroughly known until a careful study is made of the field. This calls for visits to typical plants by members of the staff capable of making a study, and the careful examination of the various processes, with a view to discovering new opportunities. Through this method the Minnesota division has added materially to the list of occupations it had learned of from existing literature as being open to different types of handicapped persons.

Since any rehabilitation service worthy of the name must be on an individual case basis, a record system suitable to the needs of the State must be devised. In Minnesota we have endeavored to make ours complete but not too elaborate. If anything, we have sinned on the side of oversimplicity. Our records consist of a report form—either the detailed one of the department of labor or the briefer one, copies being placed at strategic points throughout the State; an application form giving on one sheet all the essential details of the case; history card summarizing and continuing this; copy of the compensation record, if there is one; medical certificates where necessary and where this is not covered under the compensation record; contract with the school, establishment, or tutor giving the course; monthly report on attendance and progress; and, of course, carbon copies of all letters in the case.

The question of eligibility is one of the things which will present most difficult problems to a rehabilitation service. Our law is a very broad one, providing for the reeducation and placement of any person whose capacity to earn a living has in any way been destroyed or impaired through industrial accident or otherwise, but even under such a broad definition it has been necessary to decide on a number of definite policies. The law clearly covers persons who are disabled by accidents other than industrial, and by disease, as well as those disabled by industrial accidents. One of the first interpretations that was necessary touched on the question whether a person who has a congenital defect, or who has sustained an impairment due to accident in his earlier years, was entitled to training on reaching working age. In effect, the point was whether emphasis should be laid upon the "re" in "reeducation." The attorney general held that this class of persons was legally eligible, and we decided to train them if their disability was such that it might be expected to be a considerable vocational handicap, and with the reservation that as applicants became more numerous, disabilities incurred after the person had reached working age would be given preference.

Another matter of policy which had to be determined related to the reeducation of persons who had been trained in State institutions, such as those for the blind and deaf, and who, nevertheless, found themselves economically unsuccessful. After ascertaining that our course had the approval of the board in charge of these institutions, we took the position that these persons were entitled to our assistance both on their own account and because the experience so gained would be valuable as a guide to the institutions in shaping future training and as a guide to the reeducation service in its dealings with impaired persons of the same type who received their disabilities through industrial accidents.

An eligibility problem that appears in each case is the determination of when a given disability becomes a vocational handicap. In practice it is extremely difficult to set up definite standards with regard to this. Very often the only evidence is subjective—the man's own feeling that he can not successfully carry on the occupation in which he was engaged and his desire to take up something different. We have had compensation cases in which severe fractures had been sustained and the physician had certified that there was a complete recovery, that the member in fact was as strong, if not stronger, than it was before, yet the man had a positive feeling, amounting almost to an obsession, that the member was weak and that he was in great danger of further injuries if he continued in the same line. We have usually resolved these doubts in favor of the applicant when there was any satisfactory evidence of disability.

In addition to the vocational handicap provision, our law has another condition for eligibility. This is that the disability must have been incurred while the person was a resident or citizen of the State. Under the attorney general's ruling, a resident of the State is a person who has a fixed abode within the State of a character indicating permanency. There is no time requirement, therefore, which has been a fortunate thing as it has enabled us to rehabilitate persons disabled in Minnesota industries whether they had lived in the State one year, or one month, or even only a few days. We were

particularly glad of this fact about six months ago when we had to deal with the case of a young man from Illinois who had lost his hand in a manufacturing establishment in Minneapolis. He had been in the State only a month, but had come with the intention of remaining, and, therefore, satisfied the provision of the law with respect to residence. This was an instance of excellent cooperation and early contact with the case. The insurance company notified the division within a day or so after the accident, the director called on the young man while he was still in the hospital, helped him to fight down discouragement, and as soon as the hospital period was over planned a vocational course in show-card writing. Until he heard of the reeducation act, it had been the young man's intention to go back to relatives in Illinois. Eventually another State would have had to deal with his handicap, and would have found that his condition had reached such a stage that the problem would be much more difficult. As the matter stood, Minnesota was able to make partial amends for the damage which one of its industries had wrought.

On the other hand, our law has made us refuse the services of the division to bona fide citizens of the State of long residence who had received their disabilities while resident in other States. The ideal provision in a rehabilitation act would be one which combines these two elements—giving care to those whose disabilities were incurred in the State and to those whose disabilities were incurred elsewhere but who had been for a year or some similar period citizens of the State.

So many States have had unfortunate experiences in connection with cooperative relationships between departments, especially where anything like a joint personnel is used, that an especial interest will no doubt attach to our experience in Minnesota in this regard. The cooperative plan has thus far functioned smoothly and has accomplished even more than was expected of it. Both departments have been deeply interested in the success of the work. At the department of labor the first question has been the discovery of all cases that are likely to be of interest to the reeducation division. In this, not only the filing division but the statistical staff and the compensation agents have participated. Many special investigations have been made at times by factory inspectors and compensation agents, saving the time of the reeducation staff and reducing its expenditures for travel. Material assistance has also been given to the research work of the division through inquiries by factory inspectors, when making their regular rounds, as to handicapped persons employed and the types of work for which they are fitted.

At the department of education the attitude has always been that the other department was a moral partner in the work. At no time has there been a disposition to begrudge the close interweaving of the work since it seemed to be to the interest of the rehabilitation service. On many occasions the data about educational agencies on file in the department of education were of value to the reeducation staff, and helpful advice on standards of vocational courses was always to be had from the vocational division.

Thus far in its educational work the reeducation division has utilized a great many more private schools than it has those sup-

ported by the public, chiefly because of the fact that there were not so many of the latter giving the desired courses; that the public classes were usually large, and that it was not so readily possible to make some one person directly responsible for the training of the division's wards. Among the educational agencies with which contracts have been made are the State university, an endowed technical school, private business colleges, schools of commercial art and show-card writing, and Y. M. C. A. educational departments. Some of the establishments in which placement training has been given are broom shops, willow-ware factories, garages, shoe-repair shops, and metal foundries.

A far-reaching system of cooperation has been built up among the various social-service agencies of the State. First in importance, since it covers the entire State, is the home-service section of the Red Cross. Cooperation in reeducation work was made one of the proposed activities for chapters which went on a peace-time basis, and in many instances where they had not gone on a peace-time basis the central office at Minneapolis enlisted their good will in helping the work. The central councils of social agencies in Minneapolis and St. Paul were among the earliest to line up in offering to supplement what the State could do, and in Duluth the social-service club took upon itself the responsibility of organizing the cooperation. Advisory committees have been established in St. Paul and in Duluth, and one has been authorized in Minneapolis, but is not yet functioning. The Duluth committee, strictly speaking, is one for the entire county, and is of great importance, owing to the size of St. Louis County and the magnitude of the iron mining and subsidiary operations carried on there. Some of the points at which help is given by private agencies are in reporting cases that would otherwise not be heard of, in providing maintenance where this is necessary, and in focusing the required influences upon persons who need reeducation but are refusing or postponing it. Cooperation has also been sought from the leading agencies of the State dealing with the tuberculosis problem, both public and private. As this is a very big field of work and as it presents difficulties of a special order, it has been necessary to proceed slowly with it, and there are no results at present to be recorded.

From another quarter, also, a very good grade of cooperation was received. This was from the compensation insurance companies. They readily took cognizance of the rehabilitation aspect of compensation work and seem to have tried sincerely to further it. Reports were made of cases which had not previously been reported to the labor department as involving any serious impairment, and ready attention was given to the advice of the division in matters of prosthesis. It has not been at all unusual for an insurance company to authorize the division to select and order the prosthesis that it deemed most suitable. At the time when the reeducation act was pending in the legislature fear had been expressed by some that there would be a tendency on the part of insurance companies to raise compensation insurance rates on employers who gave work to handicapped persons. Because this belief was widespread among employers, an act was proposed and passed prohibiting the insurance companies from so discriminating in rates, making it a misdemeanor

and providing for cancellation of license. It is doubtful whether very many of the companies have been guilty of this practice in recent years. During the first year of the reeducation work only two supposed instances of such discrimination were reported, and both of them turned out on investigation to be simply the assumption of the employer.

Aside from conferences designed to set up direct methods of cooperation, considerable was done during the year in the way of addresses before various organizations in order to give publicity to the work and to the principle which it was sought to establish of a fair chance in employment for the handicapped man. Among the bodies so approached were civic and commerce associations, rotary clubs, and central labor bodies. Eventually this phase of the work should reach every important civic body in the State.

In dealing with a great many types of the handicapped the division has not found the problem of choosing a vocation an especially difficult one. So far as the leg impairments were concerned, the presumption in most of the compensation acts that these are less serious vocational handicaps than the arm and hand injuries was found to be true. A much greater number of occupations was found for which this type of injured could be trained than for those having arm and hand impairments. In the last-mentioned type the choice of vocation was found to be entirely too limited. This has been to such extent the case that the general principle usually followed, of recommending a new line closely related to the old one, has been abandoned where the disabled person is young enough to profit by intensive training, and we have had no compunctions whatever about directing these cases to wholly different occupations where the stress was upon headwork.

The blind have also been an extremely difficult type so far as range of occupations was concerned. In theory there should be a great many processes that they could do, since they have the use of both hands. Practice in ordinary business establishments, however, militates against them, and the lines in which they are in demand are extremely limited. Both these problems should receive the special attention of research work.

Another very difficult type is the arrested tubercular case. It is very probable that when the rehabilitation work becomes widely known and well established there will be great demand for its service in this connection. The solution of what occupations tubercular cases should be trained for is one that will require careful teamwork on the part of the reeducation service and the antituberculosis agencies.

A factor which often makes a very great difference as to the rehabilitation possibilities of a given case is that of age. It has been quite interesting to us to note how variable this factor has been. It seems to be largely a matter of psychology. Some men in the early thirties have declared that they could not learn anything new and have been unwilling to take courses. Others with whom we have dealt have been eager applicants and ready pupils even though their ages ranged in the fifties.

Another point upon which your association will want full information is what new light, if any, the rehabilitation activities cast upon

the compensation work. We have found these reflexes to be even greater than we had supposed. To begin with, they instill a new attitude in those who are dealing directly with the compensation aspects of the case. There is something else to think about besides the question of whether the man gets the amount of money provided for him under the law. Each compensation agent finds he has to answer the question when a case is presented whether it is one which will require rehabilitation, and if so, what advice in the matter he can give to the division intrusted with the work. By increasing the human phase of compensation work as opposed to the legal and formal the new activity has contributed to the forces that will keep compensation work from becoming perfunctory.

The rehabilitation service also secures what so many compensation acts at present lack—direct contact on the part of the State agency with the medical service given in serious cases. Early knowledge can be secured of inadequate care and the chance given the administrative body to order corrections. The same thing is true in regard to prosthesis. The rehabilitation service is in a position to see that the artificial members provided are the most practical, not merely a nominal compliance with the law.

A new principle is also introduced for the guidance of the administrative body in granting lump sums. It is clear that in any such award the effect upon rehabilitation should be considered and the advice of the reeducation agency sought. This will be found to prevent many of the mistakes in connection with lump sums which have occurred in the past.

In the way of supplying data absolutely essential as the foundation of the permanent partial sections of the compensation act, the rehabilitation service will be found invaluable. For the first time the State will have an agency which is actually going to find out what becomes of the permanently disabled persons. In the course of years full information will be accumulated as to the effect of given disabilities, and it will be possible to readjust our permanent partial indemnities in a scientific manner. Meantime certain principles will be so strongly brought to the foreground that early action can be taken in amending compensation acts to conform to them. One is that no permanent partial schedule should penalize rehabilitation by reducing compensation when the man is rehabilitated. Another is that the permanent partial schedule should not only not penalize, but should reward reeducation by including a definite grant of compensation to take care of maintenance during the period when the man is undergoing training. Other things which are even now pretty well established in some States are that complete medical service should be given and that prosthesis should be furnished as a part of the medical expense. Probably the existence of the rehabilitation activity will also have an effect in tending to bring within the scope of compensation act some of the occupations now customarily excluded. It will be more feasible for the State to rehabilitate all when all have the same coverage for their industrial accidents. The injustice of refusing compensation to the man injured while operating a thrashing machine will be more apparent when it is seen that he will have to secure his maintenance out of a public or private relief grant, while the man who suffers a

similar injury in a manufacturing plant will get his maintenance as a matter of right out of an insurance fund. The impropriety of railroad men continuing outside the scope of compensation acts will be clear from the difficulties that the rehabilitation service will have in learning of the railroad accidents and the delays in taking training that will ensue because of the reluctance of men to take reeducation while their claims are pending in court.

If the experience of Minnesota is typical, the expense of the rehabilitation service will be largely a matter of overhead. It is so distinctly case work and individual work that any system which operates with a small overhead will be certain to give inadequate service. It is probable that not more than 100 cases per year can be handled by any one rehabilitation agent. The cost will, therefore, be high as compared with educational activities for strictly normal persons. There will be a considerable expense for personal service and supervisory work to be added to the usual tuition and educational expenses. The proper comparison is not, however, with ordinary educational activities. The measure of the value of a rehabilitation service will be the ratio of the amount spent upon it to the amount of increase in the productive power and earning capacity of its wards throughout the rest of their lives. When the data becomes available for such a contrast in relatively accurate figures, there will be no question whatever as to the enormous value to society of this new activity.

In addition to the change in the compensation act providing for a reeducation award which the department of labor is proposing, the division of reeducation plans to ask for very little new legislation at the forthcoming session. The maintenance problem it proposes to approach slowly with a view to being certain of the steps taken. Two special funds—one to take care of maintenance in cases of impairments due to automobile accidents and the other to take care of similar injuries due to hunting accidents—it believes can safely be proposed at this time. The necessary money can be raised by a very small addition to the license charge in each case, or allocation of a part of the present license fees.

Summarizing and stating more explicitly some of the things merely implied in the foregoing, we believe the experience of Minnesota in one year of rehabilitation service has been sufficient to warrant us in drawing the following conclusions:

(1) A rehabilitation service must actively seek out its beneficiaries, not wait for them to come to it.

(2) The vocational advisement given to impaired persons at an early stage in their disability is of the highest value, being in itself a sufficient reason for the existence of the work.

(3) An adequate rehabilitation service must deal with individuals and with wide varieties of personal service, and must, therefore, have a large overhead expense.

(4) Extended research is needed in each community to discover the occupations for which the various types of handicapped persons are fitted. Especial attention should be focused on extending the list of occupations available for one-handed and one-armed persons, the blind, and the tubercular.

(5) A persistent campaign of publicity and education must be kept up in order to insure opportunities in employment for the handicapped.

(6) Compensation laws should be amended so as to correlate as closely as possible with the rehabilitation service.

The CHAIRMAN. The next speaker is Mr. Layton S. Hawkins, chief of the Division for Vocational Education, Federal Board for Vocational Education. It is fitting that we should hear from a Federal representative. I take pleasure in introducing to you Mr. Hawkins.

VOCATIONAL REHABILITATION FOR PERSONS DISABLED IN INDUSTRY OR OTHERWISE.

BY LAYTON S. HAWKINS, CHIEF, DIVISION FOR VOCATIONAL EDUCATION, FEDERAL BOARD FOR VOCATIONAL EDUCATION.

Before I discuss at all the provisions of the Federal industrial rehabilitation act I should like to take just a moment to tell you what the Federal Board for Vocational Education is and what work it is doing besides the industrial rehabilitation work. The Federal board was created by an act of Congress early in 1917, to administer a Federal act known as the vocational education act. That act provided an appropriation which started in with a million and a half dollars and which increases annually until 1926, when it reaches a maximum of seven and one-half million dollars a year, to be allotted to the States on the basis of population for purposes of vocational education. That money was allotted to the States under certain conditions, the first condition being that the State through its legislative authority should accept the provisions of the act. In other words, the Federal act did not simply make a gift of so much money to the State without any act on the part of the State, but made it available for the State, should it desire to use that money, provided the State accepted the provisions of the act through its legislative authority. Besides accepting the act it was necessary for the State, through its legislative authority again, to create or designate a State board for vocational education, to consist of not less than three members, the duties of said State board being to cooperate with the Federal board in the administration of this Federal act in the State which that board represented.

There was set up, then, a board representing the Federal Government at Washington, and in each State of the Union which accepted the benefits of the Federal act a State board for vocational education representing the State, and all of the work done in that State by the use of this Federal money to be done under the direction of the State board for vocational education. In other words, the money apportioned under the vocational education act was allotted to the State for the use of the State in its program of vocational education, under the direction of a State board created or designated by the legislative authority of that State. Now in 1918 Congress passed another act, known as the Federal rehabilitation act, which provided an opportunity for rehabilitation to the men discharged from the Army and Navy who suffered disability and had a vocational handicap. That work was given to the Federal Board for Vocational Education, and that work the Federal Board for Vocational Education has done directly as a Federal function. You will notice that there is a distinct difference in the administration of the vocational education act and in the administration of the Federal rehabilita-

tion act. In the first case the work is done and Federal money is used by the State board for vocational education in each State. In the second instance, in the rehabilitation of the disabled sailors, soldiers, and marines, the money is used by the Federal Government directly for the education of the disabled sailors and soldiers. In the first instance the Federal Government does not send any money to schools or institutions within the State. The money is sent to the State treasurer and is paid out upon requests of the State board for vocational education.

In the second instance the Federal Government does make arrangements directly with the schools and other training agencies which are training disabled sailors and soldiers. Payments are made to them directly and all the cases are interviewed by a representative of the Federal board and all cases are passed upon by representatives of the Federal board.

Through an act of Congress approved by the President June 2, 1920 (now known as the industrial rehabilitation act), the United States has established the principle that the Nation as a whole has a share of the responsibility for the vocational rehabilitation of physically disabled persons who are vocationally handicapped by such disability.

At the same time the principle is established in this act that direct responsibility for carrying on the work of vocational rehabilitation rests upon the States. This act does not provide for any direct organization or immediate direction of vocational rehabilitation by the Federal Government or its agents, but does provide for a period of four years substantial financial assistance to the States.

The sum appropriated by Congress is to be allotted to the States in the proportion which their population bears to the total population of the United States. Provision is also made so that the annual minimum allotment to a State shall be $5,000. The appropriation for the States for the current fiscal year is $750,000, and for each of the three succeeding years $1,000,000. The law further provides that each dollar of Federal money must be matched by at least another dollar to be expended under the supervision and control of the State board for the same purpose the Federal money is being expended.

The sums thus made available seem very small in comparison with the size of the problem, but with the Federal Government and the States committed to the principle there can be no doubt about sufficient funds being provided once the program is under way and the specific needs determined.

FEDERAL AND STATE ADMINISTRATIVE AGENCIES.

The Federal administrative agency, designated by the act, is the Federal Board for Vocational Education. This board was created by an act of Congress approved by the President February 23, 1917, and consists of seven members, four ex officio and three appointed by the President. They are the Secretary of Labor, the Secretary of Commerce, the Secretary of Agriculture, the Commissioner of Education, and three citizens who represent respectively the manufacturing and commercial, the agricultural, and the labor interests of the Nation. The State administrative agency provided in the industrial rehabilitation act is the board designated or created by the

State legislature as the State board for vocational education to cooperate with the Federal board in the administration of the vocational education act.

HOW STATES MAY SECURE ALLOTMENTS.

In order to secure its allotment the State must accept the provisions of the act through legislative authority, and the State board must provide a plan of work for the State which is approved by the Federal board. The legislative act of acceptance must—

1. Accept the provisions of the Federal act.
2. Empower and direct the State board for vocational education to cooperate with the Federal Board for Vocational Education in the administration of the act.
3. Provide for a plan of cooperation between the State board for vocational education and the State board, department, or commission administering the State workmen's compensation act, if the State has such an act.
4. Provide for supervision and support of the work to be done by the State board for vocational education.
5. Appoint the State treasurer as custodian for the allotments.

In any State the legislature of which does not meet in regular session between the date of the passage of the act and December 31, 1920, the governor of the State may accept the provisions of the act and the State be entitled to its benefits until the legislature of the State has met in regular session for 60 days.

The plan submitted annually to the Federal board for approval must show—

1. The kinds of schools, classes, or arrangements for group or individual instruction and schemes of placement for which it is proposed allotments shall be used.
2. The plan of administration and supervision to be followed by the State board.
3. The qualifications of administrative officers, directors, supervisors, teachers, and other employees necessary for carrying on the work.
4. The character and kind of courses of instruction.
5. The methods of instruction to be used.
6. Plans for training supervisors and teachers.

It is the duty of the Federal board to examine these plans and approve the same if believed to be feasible and found to be in conformity with the provisions and purposes of the act. The Federal board must certify on or before the first day of January of each year to the Secretary of the Treasury each State which has accepted the provisions of this act and complied therewith, including the amounts which the State is entitled to receive. Once the plan for the State is approved by the Federal board, the administration of the act in the State is in the hands of the State board for vocational education, with the Federal law and the State plan as the plans and specifications to guide the work.

BENEFICIARIES UNDER THE ACT.

It is the evident intent of the Federal act that all individual cases shall be handled by the State board where the case is located, and that the specific determination of eligibility of cases will be a mat-

ter to be passed upon by the State board for vocational education. It may therefore be assumed that the Federal board is expected to adopt only general policies of eligibility for the guidance of State boards in administering the act within the States.

Section 1 of the act states that it is the purpose of the act "to provide for the promotion of vocational rehabilitation of persons disabled in industry or in any legitimate occupation, and their return to civil employment." This is a comprehensive provision, and would seem to make eligible for receiving the benefits of the industrial rehabilitation act any person who is or has been engaged in a legitimate remunerative occupation and is suffering from a physical disability which is or may be expected to be a vocational handicap and who is considered by the State board for vocational education as able to be returned to a remunerative occupation after completing a vocational rehabilitation course.

Section 2 of the act provides that "the term 'persons disabled' shall be construed to mean any person who, by reason of a physical defect or infirmity, whether congenital or acquired by accident, injury, or disease, is, or may be expected to be, totally or partially incapacitated for remunerative occupation."

No portion of the appropriations made by the act may be used by any institution for handicapped persons except for the special training of such individuals entitled to the benefits of this act as may be determined by the Federal board. This is evidently intended to exclude persons who are committed to custodial, correctional, or penal institutions, and persons who are physically or mentally incapable of profiting from vocational instruction, or who are too young to enter upon such instruction.

GUIDING PRINCIPLES.

The United States, and in fact, the world in general, has very little experience on which to base a program of vocational rehabilitation. Probably the largest experience is that coming from the efforts of various countries to rehabilitate the persons disabled in the recent war. The work of soldier rehabilitation is widespread, and while it has been impossible as yet to draw many general conclusions, there is growing up throughout the country a body of experience which will be most valuable in establishing and carrying out a program of vocational rehabilitation for persons disabled in civil life. The training agencies and the individuals who are taking part in the program of soldier rehabilitation are gaining an experience which in time can be and probably will be made use of in industrial rehabilitation.

Some of the States have already made a beginning in the field of industrial rehabilitation through the workmen's compensation commission or other State agency. The industrial rehabilitation act specifically provides for use of such experience already gained or to be gained in the future by requiring a cooperative arrangement between the State board for vocational education and the State board, department, or commission administering the workmen's compensation act, if the State has such an act. This plan of cooperation should provide for the close coordination of all of the activities of

both boards so far as they relate in any way to the problem of rehabilitation.

Compensation and rehabilitation legislation are a part of a program of social legislation, and as such should be complementary and closely coordinated, not only in drafting legislation, but in the administration of the same.

All of the experience which is available indicates—

1. That the agency in charge of the work should adopt the policy of going after the man and getting information to him concerning the opportunities for vocational rehabilitation, rather than of waiting for the disabled person to come to the administrative agency and prove his case.
2. That the case method is the only feasible way of handling the problem.
3. That advisement, training, and placement is a continuous and continuing process.
4. That neither formal school classes, as at present organized, nor placement without training, will solve the problem, but that many if not the large majority of cases require individual training.

STATEMENT OF THE PROBLEM.

The problem may be summarized as follows:

1. To get in touch with the possible beneficiaries under the act.
2. To determine those who are eligible to the benefits of the act and award training.
3. To provide a systematic method of personal advisement to prospective beneficiaries.
4. To provide suitable training for those who accept the award.
5. To continuously advise and supervise all cases through training, including placement.
6. To keep accurate records which may serve as a basis for guidance of all persons who are engaged in the work in the State and in other States.

The working out of such plans will involve establishing relationships with various social agencies in the State which deal with disabled persons. For example, the State compensation commission, labor department, public health service of the State, hospitals (public and private), Red Cross, labor organizations, chambers of commerce, and other State and civic bodies.

In many instances it will be necessary to secure more support in order to enable the disabled person to take advantage of training. Information concerning possibilities of vocational rehabilitation under the act will need to be widely disseminated. The activities incident to rehabilitation therefore cover much wider fields of social endeavor than the mere educational and training activities. In undertaking to provide rehabilitation for the disabled adult a State needs to coordinate all useful agencies within its borders to secure successful cooperation so that the end sought by this legislation may be realized.

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Broadly speaking, the problems of rehabilitation group themselves around three stages in the restoration of the individual from the time of injury to successful employment:

Stage 1. Physical and mental rehabilitation.
Stage 2. Education and training.
Stage 3. Placement, including follow-up.

PHYSICAL AND MENTAL REHABILITATION.

As the result of the work of the Federal Government in dealing with disabled soldiers, and as a result of the work of a few public and private hospitals and sanatoriums, and the State agencies which have attacked the problem, occupational therapy—that is, those activities which promote physical and mental restoration of the injured person—has received in the last six years a tremendous impetus. The success of training courses will in many instances depend upon the thoroughness with which the therapeutic work has been conducted, especially when such work is for the purpose of restoring the function of muscles and limbs. It is quite within the realm of possibilities for well-equipped hospitals so to organize a system of shops that the two ends of functional restoration and vocational training may be carried on coincidentally. Modern hospitals, especially those which deal with large numbers of "industrial accident" cases, are equipping themselves to conduct work in occupational therapy. A series of shops as suggested above will provide opportunity for functional restoration and the best possible vocational advisement based on concurrent industrial operations which may be organized in "try-out" courses. Such try-out courses may have a distinct value as vocational guidance and prevocational courses, and there can be, under the best possible management, no clear-cut distinction between some of the activities heretofore classified as occupational therapy, vocational guidance courses, prevocational training, or preoccupational activities.

It is important that at the earliest possible moment during the period of convalescence the volunteer or paid representative of the State board acquaint the victim of accident or disease with his possible rights under the laws of the State regarding compensation and rehabilitation. It is equally important that every effort be made to acquaint him with the accomplishments of other men suffering from similar disabilities. This work will have a tendency to counteract the almost inevitable discouraging effects of industrial accidents. The purpose should be to inspire in the disabled man the belief that by availing himself of the resources provided by the State, he may overcome the effects of disability. If this mental state can be induced, and the hospital has organized activities in the manner suggested above, it will be a relatively simple matter to induce him to participate in the activities for which provision has been made. Through the cooperation of the hospital authorities and the agents of the State board, looking toward an employment goal, the man can be assisted to make a wise choice of an occupation, and the hospital training made to contribute to that end. A training course can readily be planned, and the whole round of activities from vocational advisement to employment can be a continuous process of rehabilitation.

The question has frequently arisen as to the place of "general education" in a scheme of rehabilitation. General education has a place in the training course for many men, because the degree of education which they have at the time of disablement does not provide a sufficient foundation to permit of vocational training for an occupation which can be followed to advantage by the man. For example, for many reasons one of the most difficult cases to rehabilitate is that of the illiterate man who had prior to his disability manual strength as his greatest asset in the general labor market. If this asset is removed by industrial accident or disease he suffers from a double handicap—illiteracy and lack of skill. He can not compete with the skilled worker in the general labor market, and his ability to compete with others has been removed because of his disability.

The determination of the occupational goal, in the light of all the information that can be secured during the period of hospital treatment, taking into account the man's previous education, his previous occupational experience, his ambitions, desires, and family circumstances, are included in what is commonly known as vocational advisement.

Broadly speaking, information collected as the result of activities during the period of convalescence will be valuable in proportion as it is based upon directed experience in organized "try-out" courses. Whatever engages the man's interest and keeps him from being discouraged is a proper therapeutic measure, and has a legitimate place, but all activities from the vocational rehabilitation standpoint must be judged by the manner in which they contribute to a vocational aim and purpose. At this time few hospitals are organized to give training courses which can be classified as vocational. This is a development for the future. All well-advised attempts in this direction, however, should be encouraged, and the results of experiments carefully weighed and made available for the information of State boards and other hospitals.

The State board should seek the cooperation of the many agencies which can contribute to the development of a plan of vocational advice to convalescent men. If the determination of the occupational goal can be arrived at by the time the man is ready to be discharged from the hospital, or so far recovered from injury that he may begin training, a great advance will have been made over our present methods of dealing with the industrially disabled. This decision will affect the whole subsequent life of the disabled person. It is important, therefore, that the one who assists a disabled person to reach so important a decision (the vocational adviser) should be responsible to the State board, which in turn is responsible for vocational rehabilitation. Preferably the adviser should be the person who will follow the man through his training and employment. Nothing is more confusing to a disabled man than conflicting advice regarding his future. The direction of medical and surgical care of an individual case is intrusted to one person as long as the case requires medical treatment. It is equally important that the direction of the vocational rehabilitation of an individual should be intrusted to one responsible person. Persons interested in the welfare of a disabled man should recognize the responsibility of the vocational adviser in relation to vocational rehabilitation just as they recognize the responsibility of the physician for physical rehabili-

tation. There need be no fear that a responsible adviser will attempt to determine autocratically what a disabled person shall do. A person big enough to hold the position will know enough to call expert consultants to his aid just as the physician does in his field. The competent adviser does not choose a vocation for a disabled person. He does assist the disabled person to choose a vocation which satisfies the ambitions of the disabled man himself and at the same time is feasible for him to follow.

EDUCATION AND TRAINING.

A man must know his occupational goal before he can attain it. Training will be most effective and pointed when his whole thought, energy, and ambition are tied up in thorough preparation for a specific job. With many men it will at the outset be difficult to state in terms of a specific job the occupation for which training is to be given, but such a selection should be made before training is begun. During the initial stages of training in such cases consideration should be given to such modification or changes as may be found necessary as the training develops. In most cases it should be possible to make the determination definite enough so that changes in the selection of a specific job will be changes within a given occupation. Such definition of objective puts purpose, definiteness, ambition, and enthusiasm into the training. The entire range of studies, operations, in fact all the elements of the training course, can be judged in the light of their bearing upon the job for which the man is preparing. These are fundamentals of real vocational training.

Training or "job preparation" for the particular vocation in mind may be had in school or on the "job" or both. If in school, great care must be taken to make certain that the course of study really affords job preparatory training. It is equally important if the training is given on the job that care be exercised to see that the man is really being trained rapidly and intensively to meet the demands of the occupation, and not being retarded in his training because of production. Under no consideration should every rehabilitation case be regarded as first a school case and then a placement training case. Disabled men often discover their vocational training needs on the job to better advantage than in the school.

Formal courses as laid out by institutions, commercial, trade, agricultural, and others, must be adapted to specific "job preparation." When men are to be trained on the job, occupations must be analyzed in terms of "jobs," the elements of the "job," the skill necessary to perform the "job," and the training necessary to develop the skill. In all training a course which will lead to satisfactory placement in the job must be planned and supervised. Only by such analysis, planning, and supervision will it be possible for the adviser of the man (the agent of the State board), or the disabled man himself, to become quickly aware of training which is being incorrectly directed, or is not in line with the advisement or actually demanded by the conditions of employment. Such analysis if followed will further show the feasibility of the training originally mapped out for the man.

The factors determining the probable effectiveness of any training plan which may be proposed as a means of assisting the person to attain his objective are:

1. An instructor who is himself competent in the occupation and who in addition can guide and direct the trainee in acquiring the essential knowledge and skill required for successfully following this occupation.

2. A course of instruction which includes provision for acquiring all the essential knowledge and skill of the occupation.

3. An arrangement of the course in a series of progressive steps from easy to difficult.

4. Surroundings and equipment for instruction so controlled that attention can be focused at first upon learning and gradually transferred to actual employment conditions.

5. The length of the course (in hours) proportionate to the amount of skill and degree of knowledge required by the occupation and instruction. Time divided so as to secure these to the trainee.

6. Provision for a transition into employment.

The following may be outlined as the task of the State board in training a disabled man to overcome a vocational handicap and returning him to civil employment:

1. To follow up the advisement and make arrangements for starting the training for the job for which the man is to be trained. At this time the kind and amount of training to be given should be determined approximately.

2. To supervise the training both as to quantity and quality, in order that—

(a) The man may get purposeful intensive training.

(b) The State board may have information on which its administrative acts may be based.

3. To place the man in suitable employment in his chosen occupation which, in the majority of cases, should be the job on which he has received placement training.

4. To keep in touch with the man until the State board is sure beyond a reasonable doubt that he is a success on the job.

PLACEMENT.

Training may be considered as completed when the trainee is able to earn wages equal to those paid to other workers in the same type of job. Vocational rehabilitation is not completed until the trainee is placed in the job for which he has been trained and it has been demonstrated that he can hold it in competition. Training men for jobs which they can follow only under sheltered or controlled conditions is not the aim of vocational rehabilitation. In special cases of such severe disablement that a man can at best be only a partially competent worker special employment conditions are justified and should be sought. Sound advisement will always have in view the final placement of the disabled man in a job under normal competitive conditions. Usually the advisement and training will be successful for an adult in proportion as they take into account his present abilities and desires built upon his previous experience and efforts.

The State board for vocational education is charged with the direct responsibility for placement of the disabled persons who have been trained. At the same time these boards should make every

attempt to secure the cooperation of other agencies engaged in placement work and organizations interested in or knowing about possibilities of placement for these men. Such agencies would include public employment agencies, employment managers' associations, labor organizations, volunteer societies and organizations, as well as individuals who can be interested in the rehabilitation of the disabled. The training and return to employment of disabled persons is a social movement and should be so regarded by administrative boards in charge of the work.

The passage of the Federal industrial rehabilitation act and the provision for State boards to administer this work in the various States offers an opportunity to coordinate all of the efforts which have thus far been made into a national organized movement. State boards for vocational education have a large responsibility and with the work wisely directed society should receive a large return for the investment which it is making.

DISCUSSION.

The CHAIRMAN. There are three speakers in the discussion. Thomas F. Konop, of the Wisconsin Industrial Commission, will speak for F. M. Wilcox.

Mr. KONOP. After listening to such interesting talks upon a subject that is so new, I can have very little to add. From a practical standpoint and results we know very little about the subject. Up to the present time we have had mostly talk and very little done. But it took a whole lot of talk before we adopted workmen's compensation acts. We thought for a long time that they were inapplicable to American industry. Like all great forward movements, the subject of rehabilitation will undoubtedly be much discussed in the future, not only by the public-spirited but by legislators and politicians as well. I do not need to tell this audience that it is an important work, a humanitarian work; that it is a great forward movement—a step in the right direction. I do not know of any movement in the past or to come that will do more good, bring more cheer to the unfortunate, alleviate discontent and pay more in dividends to the public than the work of rehabilitating the unfortunate cripples. The work of rehabilitation of the disabled soldiers of the late war is progressing with some success, and we are learning more and more about this movement, and these experiences will help us in the work of rehabilitating the industrial and congenital cripples.

Up to the present very little or no effort has been made by Federal or State authorities to reclaim and rehabilitate those whose misfortune it has been to become maimed or crippled either by accident or through disease. These unfortunates have been abandoned to society. They have become objects of charity, both public and private. They have been stricken from the list of the world's producers—a burden to themselves, to their relatives, and to society. The little that is now done under our compensation act to help the industrial cripple is indeed small when compared to what can be done by proper rehabilitation work. Rehabilitation work must go farther than medical and surgical aid and payment of compensation. It must do more than the mere replacing of the cripple in industry. To these must be added training, both mental and physical, and proper super-

vision. Under present compensation acts the injured are furnished medical, surgical, and hospital treatment and paid fairly liberal compensation. But that is not enough. The injured has suffered a sort of a mental shock; his whole mental attitude has been changed. A sort of a fear comes over him. He thinks that he has lost his usefulness and will be unable to earn a living for himself and dependents. He fears being thrown upon public charity for support. Confidence in himself has gone. There is nothing that a man loves more than independence—the feeling that he is mentally and physically fit to go through life a self-supporting man, a doer and producer for himself and family. It is here where rehabilitation work must commence. It is during this period of convalescence, when the injured is liable to let himself get into a hopeless state of mind, that a public representative of this work must come into personal contact with the patient. The patient must be impressed with the fact that the power and wealth of the Government is back of him; that it is interested in him; that it is the Government's desire to reinstate him in active industrial life, fit him for work again, and make him self-supporting. There are really five stages in proper rehabilitation work: (1) Competent medical and surgical treatment; (2) personal contact for mental adjustment; (3) proper training; (4) proper placement; and (5) supervision.

The first is now provided under our compensation laws, the second will necessarily require a considerable force of field men, and for the third proper institutions for training must be provided, and for this many existing institutions can be adapted. The fourth can be done by the field men and our public employment bureaus, and the fifth by the administrative staff and the field men. It is readily seen that the work is in a large measure individual work. It will require a great number of public servants, and hence liberal appropriations. Before the work can become successful and merit public support it must be made general, as general as education now is. In most of our jurisdictions, if not all, compensation laws do not apply to farm labor. In Wisconsin—and that is probably true in other jurisdictions—we are shy on statistics on the kind and number of cripples on the farms. These unfortunates on the farm undoubtedly get along better than others, and we find less of dependency and charity among them. However, in order to impress our many farm legislators with the importance of this work we must show by facts and figures that we will also reach the cripples on the farm and make our work general. Our departments must get after these facts and be able to show the legislatures what can be done to help all. In Wisconsin we are just beginning to gather this information.

Although the work appears hardly possible of proper achievement, the number of individual cripples who will require rehabilitation work will not be so large. Take, for example, Wisconsin. In the past five years—1915, 1916, 1917, 1918, and 1919—there was a total of 73,190 compensable industrial accidents reported (this, of course, does not include accidents that are not compensable, such as farm labor and employees where there are less than three men). Of these 73,190 accidents reported 904 were fatal cases, 32 permanently totally disabled, and 4,743 permanently partially disabled. Of these 4,743 only a small portion of them are really in need of rehabilitation work. Taking the more seriously permanently disabled, those

with the loss of arm, hand, and all fingers, and possibly adding to this three fingers of one hand, loss of the thumb and two, three, or four fingers, and loss of the foot or leg, would probably be the only ones who would come in for rehabilitation work. Of course some of those who are not permanently totally disabled would also come in for the work. That would mean that in Wisconsin out of 4,775 permanently disabled there would be only 1,451 with the more serious permanent disabilities who would require more or less rehabilitation work. That would mean that for the past five years in Wisconsin only 30 per cent of the permanently disabled in industry would come in for rehabilitation work.

Now, as to the papers that were presented here. We certainly appreciate the exhaustive discussion of this subject by Mr. Hawkins. He probably knows more about the subject than all the rest of us put together. He has given us a fund of valuable information that we needed, and I am sure we will try to follow his leadership and direction.

I think that we must all take our hats off to Oregon, which has made such a wonderful start in this work. Mr. Kirk says that his legislature appropriated $100,000 for this work and tied no strings to the appropriation. Those of us who have had any experience in trying to get money from legislatures know that this is a very liberal appropriation. The Legislature of Oregon should be commended for the way in which it took hold of this subject. I think that in the instances cited by Mr. Kirk Oregon is doing real rehabilitation work. The commission is carrying out fully the five stages of the work that I have mentioned. I am glad to note that it is making use of existing trade schools and that it has the cooperation of employers in this work. From what we know of Oregon it will not only succeed but will lead in this work.

I was very much interested in Mr. Gleason's paper. I can not agree with Mr. Gleason's criticism of the employment service. If what he says is true of the employment service in Massachusetts it is indeed a sad commentary on the employment service in that State. In Wisconsin we have been making a special effort in our employment offices properly to place workmen, and we have succeeded fairly well. Quoting from Mr. Gleason the following words: "The test of work of this character is whether the men make good at the jobs, and the longer they stay after once being placed the greater the success, provided, of course, the man secures the right kind of opportunity with increased pay. We do not count pay as being a measure of success; it is rather the contentment of the man and also his ability to please himself and his employer in his work"—I am satisfied that Massachusetts has been doing proper and judicial placement work, rather than rehabilitation work. They have been simply doing one of the things necessary in this work. I think that if this work is to be a success the emphasis must be placed on the training and reeducation of the cripples for industry. Reeducation should be not only for operations but for particular trades and occupations. I was glad to hear Mr. Sullivan discuss this subject. There are some things, however, about which I do not agree with Mr. Sullivan. I do not believe that the department of education, which has charge of our academic schools, should be recognized as the proper agency to administer this great work. I think this work, to be properly ad-

ministered, must be administered by the industrial accident boards and the boards of vocational education acting together. The cases cited by Mr. Sullivan of the picture framer, the painter, the young Scandinavian at the technical high school, and the garage man exemplify real rehabilitation work. The case of the young Scandinavian at the technical high school shows that this training and reeducation of cripples can not now be done in our existing elementary schools and high schools. This of itself is proof that the department of education, which has control over these schools, is not the proper department to take charge of this work.

I confess that in Wisconsin we have done very little rehabilitation work; practically none. The State board of vocational education, however, has a field man in its employ on this work, and the industrial commission of the State has a woman in its employ on this work. They cooperate readily in this work, but, as stated before, we are just beginning. Thus far our State has not accepted benefits under the Federal act. The industrial commission and the State board of vocational education have the matter up with the governor at the present time, and we will probably accept the provisions of the act before the legislature meets in January.

The CHAIRMAN. I want next to present a man who has a peculiar place in this program, in my opinion, and I have the best reason in the world for calling on him now. Judge A. E. Graupner, attorney of the California Industrial Accident Commission, has made a close study of the question of industrial rehabilitation. He is engaged at this time in fighting a case against our rehabilitation act before the Supreme Court, and his research has been as thorough as it possibly could be. But the thought I have in mind is this, that when war was declared Judge Graupner entered the officers' camp, and it wasn't very long until he was over in France, and on the fighting line at the Argonne he fell severely wounded. The first report we received was that it was likely that he would not come back to us. Fortunately, while his injury was serious, after some months he was able to return to this city, where he is well known, and to-night we have him with us, seemingly in excellent health, but not in as good health as before; he made a tremendous sacrifice for us, and for every man, woman, and child who respects the principles for which America stands. In paying tribute to Judge Graupner in this respect I feel I am doing it for everyone present, and with pleasure I present to you our judge.

Judge A. E. GRAUPNER, attorney, California Industrial Accident Commission. I want to compliment Mr. Hawkins on his frank statement concerning the Federal Vocational Board, and I want to impress upon you the lesson his words should carry to you. As a legioner, I became the trouble shooter for the American Legion in California, and from the time I was discharged from the hospital here in San Francisco I have been the one to whom those men who were disabled and who were dissatisfied with the vocational training board have been sent. In the months running from May of 1919 to January 1 of this year I think my figures show the handling of some 151 cases. Since the first of this year my figures are something like 38 cases, the decrease being due to the complete change in the Federal vocational training viewpoint. At first it was the

educator's point of view which projected itself onto the wounded man. That gradually became tempered, but still, as Mr. Hawkins said, there were three fields of action in dealing with the injured man.

In taking up rehabilitation on the industrial side, my feeling is that we must consider rehabilitation merely as compensation, as the highest and ideal form of compensation; that is compensating a man in the truest sense, placing him back where he is a useful citizen once more. We owe it to the man and we owe it to the Nation, as every man in this Nation is a potential asset of the Nation. If we don't consider him, then we are untrue to our Nation. In the next place, we must look upon the man, as has been said, as a problem, each man to be dealt with and handled individually, and perhaps this is the most difficult feature of our rehabilitation work.

In the first place the man's confidence must be obtained. In the second place it must be discovered exactly what he wants, and, regardless of terms used, to find in exact terms what he thinks he can do and what he wants to do and as nearly as possible set him at that work. There are men, of course, who desire to fly to the moon and lack wings even to leave the earth, and of course we are going to have a difficult time with those men. We must do this work with sympathy, and do it as compensation work. Those are the two big factors.

Now just one word about an administering body. I might say much concerning the bill Mr. Hawkins discussed. I have my fears about some of the operations of that bill when it comes to the designation by a State legislature of the exact nature of the committee that shall cooperate with the Federal Government. But be that as it may, whether the action on the part of the State legislature be wise or unwise, there is to my mind no body in any State having an industrial accident commission as well situated to administer compensation to the individual as the industrial accident commission; first, because the industrial accident commission, if it is worth anything at all, has the confidence of the men; the employee, the employer, and the insurance carrier all know it. The industrial accident commission has the statistics concerning that man's rating, it has the surgeon's reports concerning his injury, it has the complete history, and it can get contact at less overhead expense. Here is the situation. A man was wounded and treated in the Government hospital. His entire record went to Washington, and was lost there. He came to the insurance bureau for compensation. He was rated, and on to Washington went those records. He came for vocational training and had to undergo a complete examination and rerating. There was a good deal of expense there. That expense should be saved so that the funds of the States can be used for the giving of this new compensation, rehabilitation to the individual, and the industrial accident commission in administering these laws in the various States can save very much of that overhead by handling the industrially crippled.

There is another item that must be considered, and that is that the industrial accident commissions, through their safety departments and various other departments, are making a comprehensive study of employment placement. They are in contact with the employers, and to my mind the greater part of the rehabilitation work can be

handled by them, because they know the employer. And so, to conclude a rather hasty argument, I will say that I believe that the administration, as far as the industrial cripple is concerned, should be and really belongs in the hands of the industrial accident commission, because economy and efficiency are served thereby.

The CHAIRMAN. The last speaker is Dr. C. B. Connelley, commissioner of Pennsylvania.

Mr. C. B. CONNELLEY, commissioner, Pennsylvania Department of Labor and Industry. I wish that many people in this country had heard these papers to-night. It seems to me that the States, after all, have a certain specific function to perform and will do it in their own way. Massachusetts believes it is almost impossible to have any school in Massachusetts train any of these cripples. Mr. Kirk has an entirely different idea of it. But much good will come from what we have heard to-night. In Pennsylvania we have five distinct locations where we try to get the cripples back into life and into occupations. I believe what Mr. Kirk has said, that if we do not look upon this thing as charity we will be able to get somewhere very much sooner than we would ordinarily.

We have to begin with the illiterate, one who can not read or write in his own language—he is a common laborer—and we have to take that person and re-create him. To give you an idea of just what we have here in Pennsylvania, the age groups of 396 who have registered with the bureau are of interest. Of the total of 396 registrants, 70 are under 21 years of age, 104 are between 21 and 30, 85 are between 31 and 40, 67 are between 41 and 50, and 70 are over 50 years of age.

The problem in Oregon is different from that in New York; the problem in Pennsylvania is different from that in Massachusetts; the problem in California is different from that in Wisconsin; but when you consider what we are trying to do here it means much for the advancement of this great country of ours. We had the employment managers meet with us in Pennsylvania to see what we could do with these crippled men in placing them again. We knew enough of the schools, because we are functioning with the department of education. We knew considerable of the Smith-Hughes bill, because we were parties in that, and for 10 years tried to get the legislators at Washington to see what we were doing; the work Mr. Hawkins told you of to-night and which, as the good judge told you, is something that is going to reconstruct this whole educational industrial system of ours. We asked the men in Pennsylvania who were employing men if they wouldn't take it upon themselves, after these men came out of the hospital back into the shops, to help in placing them again, and they agreed to do that.

We have so many men who have to have artificial limbs, arms, etc. We were careful not to give these people always just what they asked for; we wanted them to take a certain amount of responsibility. If the men lose limbs the corporations and firms for whom they worked now buy limbs for them; but when we began the injured ones bought them themselves. We believe that while the responsibility is on the State, the people who are paying for it are the corporations, and that we can do too much for some of these people. We can not

do too much for the soldiers, but we believe they should be taught that we will help them if they will only help themselves.

I am sorry there are not more people in the United States who know just what the rehabilitation act means. I am sorry that they do not know that what we are striving for is the re-creation of these people who have been injured, but if we can get the safety-first movement in the public school system of the United States, and have it understood just what it means, and have the cooperation, as we have, of the Federal Government, it will not be long until this institution of ours here will come into its own and be recognized as a savior of humanity in the United States.

The CHAIRMAN. Is there any further business to come before this session?

Mr. GARDINER. May I take a couple of minutes to make a statement in connection with this rehabilitation?

The CHAIRMAN. Can you confine it to two minutes?

Mr. GARDINER. Yes. Before I ever had any connection with the labor department I entered the service of the Great Northern Railroad Co. as machinist in 1898, and came in touch with an industrial cripple with his arm off at the elbow, who had been given occupation by the Great Northern officials, with a sufficient wage to support his family until he had educated himself on a particular machine, where for 10 years he had been paid full machinist's wages. Another was a man who was paralyzed from the hips down. He was given a chance by the company to educate himself in air-brake work. He received instructions from the man, whom he later succeeded, who was in charge of the air-brake room and who also gave instructions to men in handling air brakes on equipment. That was before industrial education or rehabilitation was thought of.

The CHAIRMAN. To-morrow, at the conclusion of the morning session there will be a picture taken of the delegates and visitors, in Union Square Park, right across Powell Street.

If there is no objection the session will adjourn.

TUESDAY, SEPTEMBER 21—MORNING SESSION.

CHAIRMAN, GEORGE A. KINGSTON, COMMISSIONER, ONTARIO WORKMEN'S COMPENSATION BOARD.

COMPENSATION COSTS.

Mr. FRENCH. The chairman of this morning's session is Mr. George A. Kingston, of the Ontario board. Mr. Kingston has the advantage of having attended these sessions, I think, more frequently than any other member of the International Association. The association was formed in the city of Lansing, Mich., by, of course, a very small group, and the first real convention was held in Seattle, in 1915, and ever since that time Mr. Kingston has acquired and fully developed the convention habit. We are certainly glad to have him take the trip from Toronto, because his experience and ability in our particular line of work have made him one of the leaders in compensation history. Those who attended the Toronto convention will always remember the way Mr. Kingston handled that gathering and the splendid entertainment he was the means of furnishing us.

The CHAIRMAN. The first item on the morning program is a paper by Mr. Downey, special deputy of the Pennsylvania Insurance Department. Mr. Downey is not here, but I may explain that his paper takes the form of a report of the committee on statistics and compensation insurance cost, one of the standing committees of the International Association. His paper is printed, and while there is a good deal of table detail in it, those of you who wish to go into that matter will have the opportunity of doing so by reading his paper, which will, of course, be published in the convention proceedings.

METHODS OF COMPARING COMPENSATION COST.

Sixth report of the committee on statistics and compensation insurance cost.

BY E. H. DOWNEY, COMPENSATION ACTUARY, INSURANCE DEPARTMENT OF PENNSYLVANIA.

[This paper was submitted but not read.]

Ease and diversity of social experimentation is commonly thought by the admirers of a federal system of government to be one of its outstanding advantages. Successful experiments, so it is claimed, will be widely imitated while those that prove disadvantageous will expend their untoward results within a restricted area. Whatever be the merits of this theory, its practical working is admirably illustrated by the workmen's compensation system of the United States and Canada. Every known form of insurance and every imaginable diversity in the scale of benefits are somewhere being tried within the confines of North America. It only remains to make this superabundant experimentation fruitful by providing facilities for the comparative study of results.

A comparative study of compensation cost in different jurisdictions and under different plans of insurance should throw much light upon the questions: What is a reasonable scale of benefits? What is the most effective administrative organization? Which is the most efficient type of insurance carrier? To serve these several uses, the comparative study must comprise at least the following four analyses:

(1) Total cost of the compensation system;
(2) Cost of compensation insurance;
(3) Administrative as distinguished from insurance cost;
(4) Compensation benefits in relation to wages lost on account of industrial injuries.

Obviously, such a comparison can be made only upon the basis of uniform statistical and accounting methods. Much of the work of your statistical committee for the past several years has converged upon this problem, and the standard tabulations recommended by that committee, if consistently carried out, would afford the data requisite for intelligent comparisons. It is the object of the present paper not to propose further statistical tabulations, but merely to outline in some detail the analyses needful to a comprehensive view of compensation cost.

1. TOTAL COST OF COMPENSATION SYSTEM.

The entire cost of the compensation system consists in the benefits paid to injured workmen and their dependents (including the cost of medical care), the expenses and profits of insurance carriers, the analogous expenses of noninsured employers, and the cost of administrative supervision on the part of the State. No comparison of compensation cost in different jurisdictions which leaves any of these elements out of the account can be either adequate or conclusive.

Yet it is perhaps not too much to say that a full statement of compensation cost is nowhere disclosed by the published records of any State or Province in North America. Even the gross amount of compensation benefits incurred in any given period is known for comparatively few jurisdictions. Some States give full returns for insurance carriers, omitting the experience of noninsured employers, which is commonly from one-fourth to one-half of the total; others omit all medical and hospital costs; others, still, publish the amount of compensation awarded within the year irrespective of the year of occurrence of the injuries for which the awards are made. The overhead expenses of private insurance carriers are published by some half dozen States; the analogous expenses of noninsured employers are nowhere a matter of record. Administrative costs, lastly, are published in some detail by a few boards and commissions, but are a wholly unknown quantity in those States which are blessed with court administration. In short, the present state of public records is such that any attempt to compare gross compensation cost as between any two jurisdictions, however conscientiously made, will yield only conjectural results.

2. COST OF COMPENSATION INSURANCE.

The cost of compensation insurance is to be distinguished, on the one hand, from the benefits paid to injured workmen and their dependents and, on the other hand, from the cost of governmental administration. Neglect of these obvious distinctions has befuddled many attempted comparisons of insurance costs.

From a social standpoint the crucial question is the relative efficiency of different types of insurance carriers, which in its cost aspect resolves itself into the relative cost of paying the same benefits and performing the same insurance services. Insurance cost, in this sense, is the difference between premiums and benefits, commonly spoken of as the expense ratio. To compare expense ratios, however, it is first of all necessary to obtain an accurate measure of both premiums and benefits.

Compensation insurance is primarily a means of securing the payment of compensation benefits and of distributing the cost thereof among insured employers. Most insurance carriers, in addition, undertake to investigate and adjust compensation claims, to make the actual payments, and to promote industrial safety by inspections and propaganda. The several types of insurance carriers—stock, mutual, and State fund—differ among themselves in the degree in which these services are performed, in the sources from which their revenues are drawn, and in the expenses imposed upon them by their methods of doing business. Private insurance companies, whether stock or mutual, derive their whole revenue from premium income,[8] are usually subject to tax, and are burdened with heavy competitive expenses. State funds, whether competitive or monopolistic, are tax-exempt and often receive a substantial subsidy from the State; monopolistic funds are further favored by exemption from the very heavy selling costs imposed upon all competitive insurers. Participating carriers, lastly, including State funds, return to their

[8] Investment earnings, of course, bulk large in the income of insurance companies, but the investments themselves are derived ultimately from premium income.

policyholders, in the form of "dividends," any excess of premium collections over actual requirements. Any fair comparison of insurance costs must evidently take account of these differences and must reduce the premiums of the several forms of insurance, as nearly as may be, to a common denominator.

(*a*) The cost to the public of stock-company insurance is represented by premiums less taxes.[9]

(*b*) The cost of mutual insurance (including reciprocal and participating stock-company insurance) is represented by premiums less taxes and dividends to policyholders. For the present purpose an earned surplus which is indubitably held for the benefit of policyholders is to be accredited to dividends.

(*c*) The cost of State-fund insurance is represented by premiums, less dividends to policyholders, plus any subsidy received from the State.

In the case of several monopolistic funds such subsidy is to be distinguished from the cost of administering the compensation act, apart from State insurance.[10] Where no separation of functions is made in the published accounts the cost of compensation administration may perhaps be taken as a fair offset to the premium tax paid by private insurance companies.

Against the premiums as thus ascertained are to be set the benefits paid or payable by insurance carriers. Here, again, pains must be taken to secure comparable figures.[11] The more severe disabilities and costly claims mature slowly so that those incurred in any given year can not be ascertained with much accuracy until the lapse of a considerable time. Even on matured losses a period of four or five consecutive years is necessary to give representative results. Furthermore, private insurance companies state their losses, other than life pensions, at terminal values; i. e., without discounting future payments for interest and mortality. This method of statement, as a matter of course, considerably exaggerates the amount of compensation, particularly in the low-benefit States. Any accurate comparison must reduce all losses to a uniform present-value basis by the use of standard interest, mortality, and remarriage tables.[12]

The difference between benefits incurred and premiums earned, when ascertained upon a uniform basis, constitutes the true cost of compensation insurance. It is obvious from what has been said as to the lack of uniform statistical and accounting methods that no exact comparison can at present be made as among the several types of insurance carriers. Roughly, however, it may be said that the expenses and profits of stock companies, after deducting taxes, will average, over a period of years, about 35 per cent of premiums, or 60 per cent of benefits. The corresponding expense ratio of reputable mutual companies[13] varies from 15 to 20 per cent of premiums

[9] State and Federal taxes range in different jurisdictions from 2½ to 5 per cent of premiums. A fair average is 3½ per cent of stock-company premiums.

[10] Compare Downey, Audit of the Ohio State Fund, p. 48.

[11] The tabulations of premiums and losses compiled from the annual statements of insurance carriers and disseminated by such publications as "Bests" and the "Spectator" are simply crude misinformation.

[12] The several mortality tables in use for computing compensation annuities—the American Experience Table, the British Healthy Males Table, the Danish Survivorship Annuitants' Table, and the Carlisle Table—all differ markedly among themselves. Probably the General Population Mortality Table, constructed from the United States Census, would be more suitable for the purpose than any of the foregoing. The interest rates used for compensation reserves are likewise variously taken at 3, 3½, and 4 per cent.

[13] Some mutual companies show an expense ratio as high as 40 per cent of premiums, but this is to be attributed to exploitation of the mutual plan by insurance promoters.

or from 25 to 33⅓ per cent of benefits, and the management expenses of State funds ranges from 5 to 15 per cent of premiums and from 6 to 25 per cent of benefits. Stated in other terms, the overhead cost of carrying $1 in compensation benefits is about 60 cents by the stock-company plan, 25 or 30 cents by the mutual insurance plan, and something less than 10 cents by the plan of compulsory State insurance. How far these wide discrepancies in expense ratios are offset by a difference in insurance services is, in the present state of statistical records, mainly a matter of opinion. It does not appear, however, from any evidence in hand that the private insurance companies are more liberal in the settlement of compensation claims or more prompt in the making of payments thereon or more secure against ultimate insolvency than the compulsory State funds.

To employers the most interesting comparison of insurance costs is that between net premium rates. Within a single jurisdiction such comparisons are readily made and are a legitimate selling argument. As between different jurisdictions, however, a fair comparison of premium rates is next to impossible. In the first place, the published or manual rates of private insurance companies are subject to increase or decrease by merit rating, with decreases decidedly preponderating. The amount of such decreases, and consequently the ratio of effective to manual rates, varies markedly from jurisdiction to jurisdiction. Thus in Pennsylvania the correspondence between manual and effective rates is much closer than in New York, whereas in Illinois there is scarcely any definable relationship between manual rates and the rates actually collected. In the second place, the classifications are by no means uniform even as between private insurance carriers and still less so as between monopolistic and private insurance carriers. Manifestly no fair comparison can be made between the Pennsylvania rate of $3.85 for stevedoring and the New York rate of $27 for stevedoring, n. o. c., because the Pennsylvania rate covers all longshore employees, whereas the New York manual provides a half-dozen rates, from 79 cents to $27, all applicable to the same employees on the same job. Furthermore, the distribution of premiums as between stock and mutual companies, and the mutual dividend rate, vary from State to State and from one industry to another, which variations are not disclosed in the published reports of any State. Lastly, the scale of compensation benefits is different for every State and for every class of injury, in so much that no ready conversion of one to another is at all possible. For all these reasons premium rate comparisons between States as commonly made are calculated rather to mislead than to inform. The object sought in such comparisons—to show the saving effected by one type of insurance as against some other—is far more accurately and more readily attained by the method of expense ratios already explained.

3. ADMINISTRATIVE AS DISTINGUISHED FROM INSURANCE COST.

Under whatever system of insurance, the State commonly provides some sort of tribunal for the adjudication of claims and exercises some supervision over claim payment and over the direct settlement of those claims which do not come before a public tribunal for formal adjudication. Many States further undertake to supervise the rates

and reserves of private insurance carriers. There is also commonly some attempt, at least ostensibly, to compile statistics of industrial accidents. These functions are here subsumed under the rubric "Compensation administration." The cost of compensation administration as so defined is nowhere large in proportion to the volume of compensation payments—probably from 2 to 5 per cent of compensation benefits. The precise cost, however, is nowhere readily ascertainable.

Administrative costs include the salaries of officials and employees engaged in compensation administration, traveling expenses incident thereto, rent, heat, light, postage, telegraph, telephone and express charges, office equipment, supplies, and printing. Where, as is often the case, office space, heat, light, janitor service, equipment, supplies, and printing are not charged to the specific appropriation of the administrative board or department, the fair value thereof should be approximated or the exclusion of these items clearly noted in the published reports. Court costs are likewise to be taken account of—a very considerable, even if unascertainable, item in those jurisdictions which rely upon common-law courts for the adjudication of compensation claims.

Accounting methods of the several States are so extremely diverse and so many items of expenditure are habitually omitted from the published reports that comparative statements of administrative cost are little to be trusted. Even were all expenditures known, comparisons would be worse than useless without a clear analysis of the administrative work actually performed. In direct cost to taxpayers, court adjudication without any administrative supervision of claim settlement, as in Alabama, is doubtless cheaper than any effective administration—as it is also indubitably more productive of unconscionable settlements and of wholesale short changing in the payment of claims. By the same token, the administrative board which most nearly approaches the faineant ideal of common-law courts will make the most favorable showing in point of minimum expense. To serve any useful purpose, in short, administrative accounts must exhibit the volume and quality of work performed as well as the itemized cost thereof—the number of cases disposed of and how, the number of claims disallowed and why, the number of hearings postponed, adjourned, or appealed, the amount of attorneys' fees approved, the usual time required for the adjudication of an ordinary disputed claim, and, above all, the effective waiting period, or length of time elapsed upon an average between the occurrence of a compensable injury and the actual commencement of payments. For this latter purpose a frequency distribution of waiting periods, as well as the weighted average for different insurance carriers, will be highly useful. It is a singular fact that this vital matter of promptness of claim payment has been consistently ignored in the heated contentions over the relative merits of State and private insurance. The fragmentary and scattered data heretofore published[14] appear to indicate that the record of all insurance carriers under this head—stock, mutual, and State funds—is intolerably bad but that noninsured employers bear the palm for willful neglect, delay, and short changing of claimants.

[14] For Illinois, in the Annual Reports of the Industrial Accident Board; for Ohio, in Audit of the Ohio State Fund; for Pennsylvania, in Monthly Labor Review of U. S. Department of Labor.

4. COMPENSATION BENEFITS IN RELATION TO WAGES LOST.

Compensation benefits under different laws may be compared either for the purpose of measuring the relative adequacy or inadequacy of the benefits themselves or for the purpose of determining proper relative insurance rates. Comparison of benefits with respect to adequacy is of deep social significance but has heretofore received little attention; comparisons for the purpose of insurance rate making or of exhibiting or explaining differences in insurance cost are extremely common and controversial.

The common method of making such comparisons, down to a very recent date, was the theoretical "law differential," which purported to show the relative cost of compensating 100,000 accidents in an assumed "standard" distribution of severity of injury.[15] Law differentials so obtained, expressed in the form of flat multipliers, have been applied indiscriminately to all industries, and have been made the basis, not merely of comparison between compensation acts as a whole, but of innumerable insurance rate computations.[16]

The fallacies of this method are too obvious and too generally admitted to require extended discussion. No 2 compensation acts, among the 50 or more in the United States and Canada, stand in uniform relationship as respects death benefits, permanent total disability benefits, permanent partial disability benefits, minor dismemberment benefits, temporary disability benefits, and medical benefits. The nominal percentage of wages, the weekly and total minima and maxima, the waiting period, the basis of compensation for death and permanent disability, the period for which such compensation shall continue, the time and money limits upon medical aid—all vary widely and erratically from State to State in such wise that no conversion multiplier which holds for one class of injuries will hold for any other. As between New York and Pennsylvania, for example, the aggregate ratio of benefits is probably in the neighborhood of 2 : 1. But the ratio of death benefits is more nearly 1.5 : 1; of permanent total disability benefits, 4 : 1; of specific indemnities for loss of hand, 2.4 : 1; for loss of eye, 2 : 1; of medical benefits, perhaps 1.1 : 1.

A flat or average law differential is thus necessarily a composite of dissimilar ratios and will hold only for those industries which conform to the "standard" distribution of accidents with respect to severity of injury. But no given industry does in fact conform to this standard. A glance at the accompanying table will show the extreme divergence of representative industries in the proportion of each kind of benefits to total compensation cost. Since the ratio of benefits as between any two States—e. g., New York and Pennsylvania—is different for each class of injuries and since the severity distribution of injuries is different for each industry, no composite ratio which is true for the aggregate of all industries will hold for any given industry. Since, moreover, the industry distribution of the

[15] The "Standard Accident Table" for this purpose was constructed by Dr. I. M. Rubinow, and the finished method of "law differentials" was mainly his work. An earlier computation, by very similar methods, based upon Wisconsin experience, was published by the present writer and Mr. S. Bruce Black in the August, 1913, Bulletin of the Industrial Commission of Wisconsin.

[16] If, for example, the "law differential" for Pennsylvania is 1.35 and for Ohio 1.85, the method assumes that the compensation cost per $100 pay roll for any industry under the Ohio law is $\frac{1.85}{1.35}$, or 1.37 of the cost experienced under the Pennsylvania law.

two States is very different, a flat differential computed upon a theoretical standard distribution of industries is true for neither. Theoretical law differentials, in short, however computed and for whatsoever purpose used, are a delusion and a snare.

TABLE 1.—PROPORTION OF EACH KIND OF BENEFITS TO TOTAL COMPENSATION COST, PENNSYLVANIA COMPENSATION INSURANCE EXPERIENCE, 1916–1918.

Industry classification.	Pay roll exposed (000 omitted).	Total compensation cost.	Percentage attributable to—			
			Death and permanent total disability.	Major permanent disability.	Temporary disability.	Medical benefits.
All industries	$2,724,709	$19,853,597	37	17	23	23
Anthracite mining	49,661	1,369,461	56	12	16	16
Bituminous mining	263,689	4,783,283	46	16	22	16
Stone quarrying	22,477	416,580	40	23	20	17
All manufacturing	1,166,432	6,962,619	23	20	25	32
Blast furnaces	10,410	172,138	54	9	16	21
Rolling mills	78,437	552,514	31	17	26	26
Iron foundries	34,690	308,157	27	16	27	30
Machine shops	75,441	505,951	18	18	25	39
Woolen manufacturing	35,273	113,943	16	25	28	31
Silk manufacturing	49,919	48,897	10	20	30	40
Brick manufacturing	26,107	238,761	39	16	25	20
Glassware manufacturing	20,895	55,709	.....	19	27	54
Building construction	170,399	2,042,345	37	17	27	19
Masonry n. o. c.	10,715	184,574	53	9	20	18
Carpentry n. o. c.	15,854	257,976	21	17	32	30
Structural-iron erecting	3,575	179,775	49	18	18	15
Department stores	57,320	78,035	36	7	28	29

The so-called "experience differential"[17] is but a refinement upon the theoretical law differential and is subject to much the same weaknesses, though not to the same degree. By this method death and permanent total disability benefits are taken at the average value developed by the experience of the State and industry for which insurance rates are to be projected while other benefits are compared by means of a complex calculation which may be briefly expressed as follows:

$$\frac{1}{2}\left\{\frac{\text{New York pay roll}\times\text{Pa. pure premium}^{18}}{\text{New York losses}}+\frac{\text{Pa. losses}}{\text{Pa. pay roll}\times\text{N. Y. pure premium.}}\right.$$

These two computations are carried out for each of a selected group of representative industries and the mean of the two composite ratios, or some correction thereof or approximation thereto, is selected as the true law differential or "conversion multiplier" for all industries deemed to be analogous in respect to the severity distribution of injuries. Such conversion multipliers may be computed separately for each class of benefits or two or more kinds of benefits may be lumped together. In either case the resultant multipliers are used to convert the losses experienced in one State to the level of benefits obtaining in the other.

[17] The experience differential method was suggested as far back as the general rate conference (augmented standing committee) of 1917 by Messrs. A. H. Mowbray and S. Bruce Black. It was first applied by the Pennsylvania Compensation Rating and Inspection Bureau in 1918. The method has since been developed and refined by Messrs. A. H. Mowbray, W. W. Greene, George Moore, and others, and was applied by the National Council on Workmen's Compensation Insurance of 1920 in the general rate revision.

[18] Pure premium $=\frac{\text{losses}}{\text{pay roll}}$.

Detailed criticism of this method of comparing compensation costs would be out of place in the deliberations of this body and would far overpass reasonable bounds. Suffice it to say that the method is inapplicable to permanent partial disabilities and is inadequate for the comparison of either temporary disability or medical benefits. It is inapplicable because the rates and periods of compensation allowed by different acts for the several classes of permanent partial disabilities, as loss of arm, hand, leg, foot, eye, or fingers, bear no constant ratio [19] and because the frequency distribution of these injuries is different for different industries, injuries to the eye predominating in quarries, coal mines, and foundries, injuries to the hand in bake shops, laundries, and woodworking establishments, finger injuries in paper box and sheet metal ware manufacturing. (See Table 2.) The method is inadequate even for medical and temporary disability benefits because the conversion ratios for these benefits under different laws vary with wage levels and with the frequency distribution of disabilities in respect to duration. The true conversion multiplier for any class of injuries as between different scales of benefits is not the same for anthracite as for bituminous mining, for iron foundries as for steel foundries, for carpentry as for concrete work, for drivers and chauffeurs as for retail stores. The method of experience differentials breaks down in practice because it necessarily assumes a composite or average ratio, the same for all or for many industries, whereas the true ratio is specific to each industry.

TABLE 2.—FREQUENCY DISTRIBUTION OF PERMANENT PARTIAL DISABILITIES, PENNSYLVANIA COMPENSATION INSURANCE EXPERIENCE, 1916–1918.

Industry.	Major permanents per 1,000 compensable accidents.	Per cent of all major permanents involving loss or loss of use of—				
		Arm.	Hand.	Leg.	Foot.	Eye.
All industries	23	7	27	5	9	50
Anthracite mining	20	8	8	12	12	43
Bituminous mining	22	5	15	10	19	45
Quarrying	39	3	7	7	13	68
All manufacturing	24	12	32	3	6	47
Baking	40	30	60	.....	.....	5
Rolling mills	18	12	20	6	12	50
Steel foundries	24	8	17	4	10	54
Machine shops	27	6	23	2	5	66
Planing mills	27	17	56	1	2	22
Building construction	22	10	20	13	17	40

	Pennsylvania.	New York.	Ratio.[a]
Loss of arm	215	312	2.41
Loss of hand	175	244	2.32
Loss of leg	215	288	2.23
Loss of foot	150	205	2.28
Loss of eye	125	128	1.71

[19] The specific indemnity periods (number of weeks) for enumerated major permanent disabilities in the New York and Pennsylvania acts compare as follows:

[a] Having regard to wage limits

There is but one reasonably accurate method of comparing compensation cost under contrasted scales of benefit: By actually applying both scales to the accident experience of the same industry in the same jurisdiction. If it be desired, for example, to ascertain the probable cost of compensation for bituminous coal mining in Pennsylvania under the New York scale of benefits, it would be necessary to make an individual valuation, under the New York scale, of the deaths and permanent disabilities experienced in the bituminous mines of Pennsylvania[20] and to make a similar valuation of temporary disabilities and minor permanents distributed into wage and duration groups. For medical benefits, lastly, the effect of the differing time and money limits would have to be evaluated from a cost-per-case distribution, such as recommended in Table 5 of your committee on statistics. The same procedure applied to the aggregate accident experience of Pennsylvania would give a measure of the total difference in cost between the two scales of benefits. The ratio so obtained, however, would not hold for particular industries nor would the reciprocal of this ratio hold for the aggregate accident experience of New York.

The statistical method of benefit comparison is so laborious and involves so much detailed analysis that it is not likely to be employed unless for the purposes of some special study or for insurance rate making. Insurance companies have hitherto resorted to unscientific and inaccurate short cuts because they have been unwilling to compile intelligible statistics of their own experience. If, however, compensation insurance rate making is ever to be placed upon a scientific footing, detailed statistical analyses of accident experience can not be avoided.

Comparisons of compensation insurance cost and of benefit scales for mere rate-making purposes have played a part in public discussions altogether disproportionate to their real importance. From a social standpoint the decisive fact of any compensation system is not its aggregate nor its relative cost, but the relationship of the benefits paid thereunder to the economic loss imposed upon wage-workers by reason of industrial injuries. To make good this loss is the professed object of the compensation system; for any shortcoming therein low insurance rates are, socially considered, but a poor recompense.

To the wage earner and his family the direct cost of an industrial injury is the wage loss during disability plus the cost of medical and hospital care. In case of death or permanent disability neither wage loss nor the capitalized value of earning can, it is true, be accurately ascertained. Wages of the same individual fluctuate from time to time and periods of unemployment are of uncertain incidence. Nevertheless, just as earnings at the time of injury are made the basis of compensation, so the same earnings will serve for an approximate estimate of wage loss.

For this purpose wage loss on account of temporary disability may be taken at the number of weeks' disability times the average weekly earnings of the injured. For death or permanent total disability, wage loss may be taken at the present value of the average weekly

[20] A very competent actuary, taking the actual dependency and wage distribution of 800 fatalities in Pennsylvania coal mines, estimated the average increase in death benefits by the compensation act amendment of 1919 at 10 per cent. An individual valuation of the same cases showed that the actual average increase was only 5 per cent.

earnings of the injured for his working life expectancy. The wage loss on account of permanent partial disability may be estimated by applying the scale of severity rating recommended by your committee on statistics.

It will not be claimed that such a computation is meticulously accurate. It will, however, give a standard gauge of the adequacy of compensation. By applying such a computation to the accident experience of a given jurisdiction and comparing the total with the compensation paid or payable for the same accidents we will obtain an index of the adequacy of the compensation system in that jurisdiction and this index will be directly comparable with the like index for other jurisdictions. If such a computation should give an index of compensation to wage loss equivalent, say, to 0.40 for New York, 0.30 for Ohio, and 0.20 for Pennsylvania, these three index numbers would give at once a useful comparison of compensation cost and a measure of the inadequacy of compensation benefits in each of these States. It could be fairly said, not only the benefit scales of these three States, *taken as a whole*, stand in the ratios to each other of 40, 30, and 20, respectively, but that each and all fall greatly short of reasonably adequate compensation.

I am convinced that your association could do nothing of broader public usefulness than to establish such a standard gauge of adequacy. State officials, employers, legislators, and the public have been very complacent with respect to the American compensation system. The public press, as also most discussions of the subject, leave the impression that the nominal percentage of wages expressed in the compensation acts represent the actual relationship between compensation and wage loss. So in the legislative hearings in Pennsylvania it was repeatedly emphasized that the act of 1915 aimed to divide the cost of industrial accidents equally as between employers and employees and the amendments of 1919 were objected to on the ground that the nominal 60 per cent would increase the employer's share to three-fifths. The bold fact is that on any reasonable estimate of wage loss the benefits payable under the Pennsylvania compensation act of 1919 will amount to not more than 20 per cent of the economic cost of industrial accidents, to say nothing of occupational diseases. The individual wage earner and his family in Pennsylvania still bears, not one-half, but four-fifths, of the wage loss incident to industrial injuries. Even in New York, industry pays much less than half of the direct economic loss imposed by work injuries upon wage earners. These facts should be brought forcibly before the public. And nothing will make the facts so vivid as a tabulation of compensation in relationship to wage loss.

Whether the compensation insurance cost for bituminous coal mining is 3 per cent, 5 per cent, or 10 per cent of wages is of very little social importance. The effect upon the retail price of coal will be nearly negligible in any event. But whether the victims of coal-mine accidents are to be thrown upon their resources or provided for through an adequate compensation system is a matter of high public moment. It is time to shift the interest of public administrative bodies from the comparative cost of different plans of insurance to the adequacy of compensation benefits.

The CHAIRMAN. The next item on the program will be a paper by Mr. Hookstadt, of the Bureau of Labor Statistics, at Washington, on

"Service, security, and cost under different systems of compensation." Mr. Hookstadt has gone very exhaustively into the different systems of the various jurisdictions comprising this international association. And I don't suppose there is any other man here, or in touch with the work in the United States or Canada, who is able to put his finger here, there, and everywhere on the weaknesses of our various compensation systems. As I say, he has made a very special study of this, and we are to have the benefit of some comparisons which he will make in this morning's paper.

COMPARISON OF COMPENSATION INSURANCE SYSTEMS AS TO COST, SERVICE, AND SECURITY.

BY CARL HOOKSTADT, EXPERT, UNITED STATES BUREAU OF LABOR STATISTICS.

PURPOSE OF THE INVESTIGATION.

For the past three or four years the Bureau of Labor Statistics has received numerous requests from State legislators and others for information regarding the relative merits of different types of insurance under workmen's compensation. Heretofore the bureau has been unable to furnish such information. The bureau began in 1919 an investigation of compensation insurance systems. The field work of this investigation has just been completed. The points upon which information was particularly sought were the relative costs, security, and service of the various types of insurance carriers. The question of costs included both cost of insurance and the cost of administration. The question of security covered security both to employers and to injured workmen. As regards service, three tests were taken into consideration, viz, (1) promptness of compensation payments, (2) adequacy or liberality of payments, including liberality of interpretation of the laws, and (3) accident prevention work.

SCOPE AND METHOD.

The investigation covered 21 States and 2 Canadian Provinces, as follows:

Exclusive State funds.—British Columbia, Nevada, North Dakota, Ohio, Ontario, Oregon, Washington, West Virginia, and Wyoming.

Competitive State funds.—California, Colorado, Idaho, Maryland, Michigan, Montana, New York, Pennsylvania, and Utah.

States having no State funds.—Illinois, Indiana, Massachusetts, Minnesota, and Wisconsin.

The industrial commission of each of the above States and Provinces was visited. The records and procedure in each State were examined and studied first hand. Particular attention was given to the following subjects: Accident reporting; claim procedure and method of compensation payments; method of handling permanent partial disabilities; formulation of insurance rates; auditing of pay rolls; computation of reserves; merit rating; and declaration of dividends. A few of the States had made special studies or had tabulated data which were utilized to some extent by the bureau in its investigation. The Illinois, Michigan, and Pennsylvania commissions had made studies relative to the promptness with which compensation payments had been made by the different insurance carriers. In New York the Connor investigation furnished pertinent information. Most of the information, however, was obtained directly from the books and records of the commissions.

Every State and Province visited gave me access to all its material. The present report is only tentative. It is not complete. The investigation was completed only a month ago, and there has not been time to tabulate and arrange and correlate in full the amount of information received.

DESCRIPTION OF FUNDS.

It might be advisable to describe the various State funds. There exists a general lack of information as to what State funds are, what they are doing, and how they are doing their business. The State funds are of two general types, the exclusive State fund and the competitive. Nine exclusive State funds were studied. These vary somewhat among themselves. Ontario, British Columbia, and Washington are of the same type. In these both compensation and insurance are compulsory. No private insurance or self-insurance is permitted. Nevada and Oregon are a little different in that compensation is not compulsory but elective. If the employers in these States elect compensation, they must insure with the State fund. Neither private companies nor self-insurers are permitted. Ohio and West Virginia permit self-insurers to do business, but private companies are excluded.

There are nine competitive funds. Of these six are under the supervision and jurisdiction of industrial commissions which administer the funds. In some of the competitive States—for example, in Montana—the fund is an integral part of the commission; in other States the fund is practically independent, as it is in California. In States in the latter class the commission formulates the general policies of the fund and then appoints the manager and grants him relatively complete control of the fund; in the former the commission retains greater administrative control over the fund. Two State funds (Idaho and Michigan) are under the jurisdiction of insurance departments. The Pennsylvania State fund is under a specially created board, which appoints the manager and has charge of the fund.

A statement should be made as regards the amount of business written by the several State funds. The stock companies in general wrote about $91,000,000 in premiums during 1919. This figure was arrived at by Prof. Whitney, of the National Workmen's Compensation Service Bureau. It does not include quite all of the stock companies, but approximately $91,000,000 was written by them last year. The mutual companies wrote $27,000,000,[21] and the State funds wrote $33,000,000. The premium income of the State funds, if written at the stock-company rates, would be larger than that, because their premium rates are usually lower than the stock company rates. The stock companies, therefore, wrote 60 per cent of the business; the mutuals, 18 per cent; and the State funds—taking them as a whole, competitive and exclusive—22 per cent.

The amount of business written by the competitive State fund varies in the different States. It ranges from 4 per cent in Michigan to about 49 per cent in Montana. The average of all the competitive State funds is 13.2 per cent; i. e., they write 13. 2 per cent of the insurance business in the competitive States. California wrote about 35 or 36 per cent last year, and I understand it has gone up to about 40 per cent. Pennsylvania and New York, the next largest funds, write about 12 per cent. These figures are only approximate but are sufficiently accurate for present purposes of comparison.

Two or three of the State funds have very considerably increased their premium income since their establishment. The California fund

[21] Data furnished by Mr. E. S. Coggswell, manager National Association of Mutual Casualty Companies.

has grown very much, and so has the Montana fund. The New York and Pennsylvania funds have increased somewhat, but the others have remained about stationary. The fact that some of these write very little of the compensation business is due to various causes. One reason is that they have not sufficient employees to go out and get business. Among some State funds, it is the avowed policy of those in charge not to solicit business, but simply to take whatever comes to them. They would have the State fund function as a sort of last resort to take the business not wanted by the other companies, and consequently they have no particular interest in increasing the size of the fund. In one State, from all available evidence, it seems that those in control of the fund are more interested in its failure than in its success. Then, too, in most of the States the fund must meet the continual hostility of private insurance carriers. These are some of the reasons which account for the lack of progress of some of the State funds.

GENERAL COMPARISON OF STATE FUNDS WITH PRIVATE INSURANCE.

I wish next to compare in a general way State funds with private insurance carriers. But in order that the comparisons between different States and between different types of insurance may be accurate, it is necessary to take into account several factors. Among the more important of these are the following: Variations in the provisions in the various laws; methods of procedure; methods of wage payments in the different localities; the size or area of the State; and the nature of the industries.

Moreover, it is practically impossible to compare State funds as a whole with stock companies as a whole, with mutual companies as a whole, or with self-insurers as a whole, for the reason that there are such great variations within each type of insurance. Some of the State funds are more efficiently managed and give better service than any other type of insurance carrier. On the other hand, some of the State funds are badly managed and give poorer service than other types of insurance. As examples of the best funds, I would cite California for the competitive fund, and Oregon, Nevada, and British Columbia for the exclusive State funds. At the other end of the line I would cite Idaho and Michigan for the competitive fund and West Virginia for the exclusive fund. The same variations, however, exist within the stock companies. I find some stock companies performing very good service, but there are others that do not. The same may be said of the mutuals and the self-insurers. There are self-insurers who pay full wages, even giving more than the law specifies. Other self-insurers do not. So it is difficult to compare one type with another type. I would say, however, that on the whole, comparing the best State funds with the best insurance carriers, the State funds are superior. They are certainly superior as regards cost; they are equal as regards financial security; and they are a little better as regards service. I shall take up those points more in detail later on, but before doing so I wish to present a few general impressions received as a result of my investigation.

Problems peculiar to competitive system.—Certain problems confront commissions in competitive insurance States which do not exist under an exclusive State fund system. In the last analysis a comparison of different types of insurance carriers resolves itself

into a comparison of exclusive with competitive systems. From an administrative standpoint a competitive State fund is not much different from a private insurance company. Under an exclusive fund system the commission *does* things. There are no technicalities to nurse, no interminable squabbles, no long delays waiting for the insurance companies to report on a case, no wasting of the commission's time in long drawn out hearings. The commission simply ascertains the facts from reports and investigations and then awards compensation. In a competitive State the commission, instead of doing things, sees to it that somebody else does the work. The commission supervises, follows up, and checks up the insurance carriers who are supposed to make the payments. It takes almost as much time and costs as much money and requires as many employees to do the follow-up work, if it is to be done adequately, as it does to do the work originally.

Under a competitive system the commissions are inclined to govern their administrative practices and to propose statutory amendments to suit the convenience of insurance carriers and employers rather than the interests of the injured workers. For example, you heard Mr. Pillsbury say, in discussing the California partial disability schedule, that the schedule must be definite; otherwise, the insurance companies would not know what rates to charge. You see that emphasizes that point. We are inclined to forget that a compensation law is a *workmen's* compensation law. It is not an employers' compensation law, nor a physicians' compensation law, nor an insurance companies' compensation law, nor a compensation law for the benefit of those who administer the law. It is for the employee, and the interests of everyone else should be subordinated. Yet these questions continue to crop out, "How will this affect the insurance company? If we don't have a definite provision in the law, we can't do this or that." Under the exclusive State fund it does not make any difference. Rates can be increased or decreased to meet contingencies as they arise and nobody is seriously affected. As an illustration, Oregon this year increased its benefits 30 per cent. This was a flat increase, retroactive, and applied to all persons receiving compensation benefits at the time. The additional cost was met, I believe, out of the surplus of the fund. But had there been no surplus the commission might have increased its rates. This could not be done under a competitive system, because the premiums were collected on the basis of the former benefits.

Again, under the competitive plan you have a dual system of administration. In an exclusive fund State, accidents are reported to the commission only; under a competitive system, accidents are reported by the employer to the insurance company and also to the commission. Furthermore, under the latter system both the insurance company and the commission must receive and investigate compensation claims, which results in unnecessary duplication of effort. In discussing the question of getting prompt and uniform accident reports, compensation commissioners argue somewhat as follows: "The insurance company wants its accident report first. We don't need it right away. We can't expect the employer to make reports to two different bodies or at two different times; therefore, we don't require it." Again, you see it is the idea of serving the employer or the insurance company. The interests of the workman

are subordinated. These problems—these difficulties of administration—do not exist under an exclusive State fund system. While the exclusive State fund systems have their problems, which they have by no means solved, they do not have this additional insurance problem which the competitive States have.

State's assumption of liability.—Another point to bring out is that in some of the exclusive fund States, especially the Canadian Provinces and Washington, the State assumes responsibility for compensation payments in case of accident. If an accident occurs within the industry covered by the law, the State pays. It gets its premium later or in advance. The workman does not lose out because the employer has not paid his premium. Of course, in most States, if the employer has not insured, the employee can bring suit for damages, but in many cases a judgment is valueless.

Public-service ideal.—Another thing which impressed me was the public-service ideal that I found in so many of the States. We may talk of the evils of politics in State administration, but nevertheless one finds a large proportion of State officials and employees imbued with a high sense of public service. The commissions may not always do their work properly; they may be inefficient—some of them are; but, after all, there is an ideal to follow, to serve one's fellow man, to serve the employee. I was impressed with that, in spite of all the inefficiencies, or many of the inefficiencies, I found.

Politics.—One of the factors which militates against efficiency of administration in industrial commissions is our system of partisan political appointments. The personnel of commissions is constantly changing with the change of political administration. In the State of Washington, for example, there have been 17 commissioners since the creation of the commission in 1911. This continual change in personnel prevents a continuity of policy. Commissioners frequently hesitate to undertake important and constructive policies when their probable tenure of office is only three or four years. Furthermore, this change in personnel affects not merely the commissioners themselves but the entire staff of the commission. Another manifestation of this political system is the interference on the part of large and influential employers with the duties and policies of the commission; for example, the employer in order to prevent the commission from carrying out its policy will appeal to the governor or other political authorities, who, in turn, will diplomatically suggest to the commission to go a little slow in taking drastic action against the employer. As a result the commission, because it is a part of the political administration, will hesitate to antagonize influential employers.

Membership of industrial commissions.—An industrial commission or board should be composed of at least three members representing both employers and employees. The single commissioner in my opinion is undesirable. Every person has certain idiosyncrasies and pet theories or "hobbies," and it is undesirable to subject interpretations of important legislation and the rights of citizens to such individual peculiarities. In case of a board—say three members—the idiosyncrasies of individual members are ironed out and more substantial justice secured.

Judicial review.—It is desirable, on the whole, that the commission's decision in compensation cases should be subject to limited review by the courts. Such judicial review will have a tend-

ency to check the assumption of autocratic methods on the part of a commission or commissioner. Especially is it desirable to have a judicial review where the commissioners have long term or life appointments.

Inadequate appropriations and salaries.—Probably the greatest handicap suffered by State funds and industrial commissions is inadequate appropriations and salaries. An industrial commission can not perform its functions properly nor furnish adequate service if it does not have sufficient appropriation to carry out its work and if the salaries provided are so low that high-grade employees can not be retained. The Industrial Commission of Ohio and the State Insurance Fund of New York have been particularly handicapped in this respect. In fact most of the State commissions serve as recruiting ground for private employers and especially the private insurance companies. Great credit is due those employees who, because of their interest in the successful and efficient administration of the fund or commission, remain in the public service although able to command double their salary in private employment.

COST.

As already noted, State funds as well as private insurance companies, vary greatly among themselves as regards efficiency in management. However, certain legitimate comparisons can be made between the two types of insurance. I shall first take up the question of cost—cost to the State, to the employee, and to the employer. In order to obtain accurate comparisons, however, it is necessary to distinguish between the accident cost, on the one hand, and the compensation cost of those accidents, on the other. One must also distinguish between cost of administration, cost of insurance, and cost of compensation benefits. We must say what we mean by cost.

Cost to State.—The total cost to the State depends on two factors—the amount of the benefits and the cost of administration, i. e., how much it costs to put those benefits into effect. Ordinarily when we speak of cost to the State, we mean administrative cost. In comparing the administrative cost of one State with another, we must, of course, take into account the number and variety of functions performed, since some State commissions are engaged in more activities than others. It is also necessary to have all the items of expense included. For example, in some States the reported administrative expenses include rent; in others, they do not. Then, too, if we wish to compare the total administrative expense of one State with another, we must take into account the administrative expenses of insurance carriers, including the State funds. Suppose, for illustration, we wish to compare the administrative cost of the exclusive States of Ohio, Ontario, or Oregon with the competitive States of, say, Pennsylvania or California. In the first group of States the total cost will be shown by the expenses of the commission; but in the second group of States the total expenses of administering the compensation act will be the administrative expenses of the commission, plus the administrative expenses of the State fund, plus the expenses of the insurance companies, to say nothing about the expenses of the self-insurers. The difference between the two totals represents the difference in administration costs under exclusive and competitive systems.

In order to bring out forcefully the difference in the cost of administering a compensation act under the two systems I have

prepared the following table which shows for specified States the administration expenses of the industrial commissions, the State funds, and the stock insurance companies. The purpose of column 1, showing approximately the number of employees subject to the compensation acts, is to indicate the volume of business performed in each State. Column 2 shows the actual expenses of the commission for administering the compensation law; column 3 shows the actual administrative expenses of the State funds; column 4 shows approximately the administrative cost to the stock insurance companies. The stock-company figures were obtained by applying an average expense ratio of 37½ per cent to the earned premiums as reported by the National Workmen's Compensation Service Bureau for the year 1919. Although the stock expense ratio varies in the several States, ranging from 35 to 40 per cent, the application of a flat 37½ per cent will give results sufficiently accurate for the present purpose. In fact, for the total expenses of all private insurance carriers these figures are an understatement, since they do not include the expenses of mutual and reciprocal companies, which were not available, nor do they include the expenses incurred by self-insured employers. The administration expenses for the commissions and State funds are all for the year 1919, except for the following, which are for 1918: Ohio commission, Ontario commission, Idaho fund, Pennsylvania commission and fund.

EXPENSES OF COMPENSATION ADMINISTRATION IN SPECIFIED STATES.

State.	Estimated number of employees subject to act.	Commission. [1]	Fund. [1]	Stock companies. [2]	Total.
	1	2	3	4	5
Exclusive fund States:					
Washington	191,458	$172,816.93	.....	.....	$172,816.93
Oregon	98,910	138,902.31	.....	.....	138,902.31
Nevada	24,746	32,778.66	.....	.....	32,778.66
Ohio	1,008,813	279,596.00	.....	.....	279,596.00
West Virginia	212,812	80,422.64	.....	.....	80,422.64
British Columbia	90,000	70,705.53	.....	.....	70,705.53
Ontario	390,000	152,235.82	.....	.....	152,235.82
Competitive fund States:					
California	611,941	175,270.10	$319,125.11	$2,088,426.43	2,582,821.64
Idaho	50,119	15,542.06	21,160.45	108,522.50	145,225.01
Montana	56,826	[3] 27,000.00	.....	69,855.25	96,855.25
Colorado	137,157	[3] 56,598.19	.....	280,493.09	337,091.28
Michigan	597,585	61,550.94	29,936.60	1,246,371.32	1,337,858.86
Pennsylvania	2,149,867	239,587.95	242,170.56	4,384,702.17	4,866,460.68
New York	2,503,020	422,447.07	213,800.40	8,750,610.47	9,386,857.94
Maryland	188,433	[3] 63,914.99	.....	753,168.21	817,083.20
Private insurance States:					
Massachusetts	1,109,134	159,854.95	.....	2,642,602.31	2,802,457.26
Indiana	502,729	27,928.62	.....	1,166,299.23	1,194,227.85
Illinois	871,890	[4] 119,296.85	.....	2,757,497.28	2,876,794.13
Wisconsin	405,009	36,855.11	.....	880,825.02	917,680.13

[1] Figures do not include expenditures for accident prevention, except New York State fund.
[2] Figures include expenditures for accident prevention. Inspection expenses about 2 per cent of earned premiums.
[3] Includes expenses of State fund.
[4] Includes expenses for administering the conciliation and arbitration act (approximately $10,000).

A glance at the foregoing table shows the enormous difference in administrative costs between the exclusive and competitive insurance systems. The former are stated in thousands of dollars, whereas the latter run into millions. For example, compare the exclusive State fund of Ontario ($152,000) with the competitive insurance

State of California ($2,582,000) or the exclusive State fund of Ohio ($279,000) with the competitive insurance State of Pennsylvania ($4,866,000) and the private insurance State of Illinois ($2,876,000).

A comparison of the number of State employees required to administer the compensation act under the different insurance systems may also be of interest. The following tabular statement shows the number of employees in specified exclusive fund States, competitive fund States, and States having no State funds. The figures are for the year 1920, except for Pennsylvania and Illinois, which are for 1919.

NUMBER OF STATE EMPLOYEES ENGAGED IN ADMINISTRATION OF COMPENSATION ACTS IN SPECIFIED STATES.

State.	Commission employees.	Fund employees.	Total.
Exclusive fund States:			
Ohio	214	.....	214
Oregon	119	.....	119
Washington	89	.....	89
West Virginia	42	.....	42
Competitive fund States:			
California	67	237	304
Pennsylvania	126	85	211
Michigan	28	16	44
New York	263	173	436
Private insurance States:			
Illinois	57	.....	57
Massachusetts	83	.....	83
Wisconsin	22	.....	22

It will be seen that the number of employees in States having exclusive State funds is relatively smaller than in the competitive fund States. This is the logical thing to expect because the former States do not have a dual system of administration. Furthermore, it requires nearly as many employees to administer the compensation act in States having no State funds whatever, if the work is to be done adequately, as it does in the exclusive fund States.

Cost to workmen.—Let us take up the cost to the workman. In the first place, we must distinguish between the *accident* cost and the *compensation* cost. By accident cost I mean the wage loss resulting from the accident. How much of this accident cost does the employee bear and how much does the industry or the employer bear? Most of the laws, as you know, provide that the compensation shall equal a certain percentage of the employee's wage received at the time of the injury. This percentage ranges from 50 to 66⅔. No one, however, should for one moment believe that the injured workman actually receives 50 per cent or 66⅔ per cent of his wages. Practically all of the States, in addition to the percentages, have weekly maximums beyond which the amount of compensation can not go. This not only limits the amount of compensation still further but virtually vitiates and nullifies the percentages. For example, it is absurd to speak of a State paying 66⅔ per cent of wages, as is the case in New Jersey, when the same law also provides a weekly maximum of $12. Therefore, instead of receiving 60, 65, or 66⅔ per cent the injured workman actually receives only 20, 25, 30, or 35 per cent of his wages. These weekly maximums are unjust to the workers and should be wiped off the statute books or at least raised to a sufficient level to enable the workman to sustain himself while incapacitated.

I have compiled a series of four tables which show, for several specified occupations, the effect of the weekly maximum in reducing the statutory percentages in the several compensation States.

Table 1 shows the weekly maximum for each of the more important industrial States. It also shows the standard union wages, as of May 15, 1920, received in the following occupations: Bricklayers, carpenters, machinists, molders, painters, plasterers, sheet-metal workers, and structural-iron workers. These weekly wages are computed from the union wage scales as regularly published by the Bureau of Labor Statistics of the United States Department of Labor. Most of these occupations are in the building trades. Moreover, the figures show wage rates rather than earnings, and can be criticized for this reason. I do not know what the actual earnings are. The weekly figures given were derived by multiplying the standard minimum hourly rates by the minimum hours per week. It has been assumed that the workers were employed on full time the whole year, which of course is not true for the building trades. On the other hand, the actual hours worked per week and the actual wage rates were probably greater than the minima upon which the computed weekly wages were based.

TABLE 1.—COMPARISON OF STATUTORY WEEKLY MAXIMUM COMPENSATION AND STANDARD WAGES RECEIVED IN 1920 BY SPECIFIED OCCUPATIONS.

State and city	Statutory weekly maximum.	Standard wages received in 1920.							
		Bricklayers.	Carpenters.	Machinists, manufacturing shops.	Molders, iron.	Painters.	Plasterers.	Sheet-metal workers.	Structural-iron workers.
Alabama (Birmingham)	[1] $12.00 [2] 15.00	$44.00	$33.00	$37.68	$38.40	$38.50	$33.00	$44.00	$44.00
California (San Francisco)	20.83	55.00	46.77	39.60	38.72	46.77	50.00	49.50	49.50
Colorado (Denver)	10.00	55.00	49.50	34.56	38.40	55.00	55.00	44.00	44.00
Connecticut (New Haven)	14.00	44.00	44.00	38.40	[3]	38.50	44.00	38.50	46.77
Illinois (Chicago)	[1] 12.00 [2] 15.00	55.00	55.00	44.00	50.40	55.00	55.00	55.00	55.00
Indiana (Indianapolis)	13.20	55.00	45.00	36.00	43.20	40.00	38.50	44.00	55.00
Kentucky (Louisville)	15.00	50.60	35.20	[3]	39.84	33.00	44.00	35.20	44.00
Louisiana (New Orleans)	18.00	44.00	36.00	38.40	38.40	33.00	45.00	44.00	44.00
Maryland (Baltimore)	18.00	56.25	39.60	36.00	45.02	39.60	49.50	35.20	55.00
Massachusetts (Boston)	16.00	44.00	40.00	43.20	43.20	40.00	40.00	44.00	44.00
Michigan (Detroit)	14.00	55.00	44.00	52.80	48.00	55.00	55.00	55.00	55.00
Minnesota (Minneapolis)	15.00	55.00	44.00	39.60	47.25	44.00	49.50	44.00	38.50
Nebraska (Omaha)	15.00	55.00	49.50	40.80	40.80	44.00	49.50	44.00	50.60
New Hampshire (Manchester)	10.00	49.50	49.50	24.00	34.80	35.20	49.50	20.99	44.00
New Jersey (Newark)	12.00	55.00	44.00	36.00	42.24	44.00	55.00	44.00	49.50
New York (New York)	20.00	55.00	49.50	43.20	42.24	45.00	52.27	49.50	49.50
Ohio (Cleveland)	15.00	55.00	55.00	37.50	43.20	49.50	55.00	55.00	55.00
Oregon (Portland)	[1] 13.49 [2] 22.50	55.00	44.00	38.72	41.27	44.00	49.50	44.00	49.50
Pennsylvania (Pittsburgh)	12.00	49.50	39.60	[3]	45.02	49.50	50.60	39.60	44.00
Rhode Island (Providence)	14.00	50.60	44.00	[3]	[3]	39.60	40.00	44.00	44.00
Tennessee (Memphis)	11.00	55.00	44.00	48.00	44.28	44.00	44.00	44.00	44.00
Texas (Dallas)	15.00	49.50	44.00	38.40	[3]	44.00	49.41	44.00	44.00
Utah (Salt Lake City)	16.00	55.00	49.50	42.00	42.00	44.00	55.00	44.00	49.50
Virginia (Richmond)	12.00	45.00	34.08	36.00	38.40	31.20	33.00	42.24	44.00
Washington (Seattle)	[1] 6.92 [2] 12.12	55.00	44.00	38.72	38.72	40.00	50.00	44.00	49.50
Wisconsin (Milwaukee)	14.63	55.00	37.40	36.00	[3]	37.40	38.50	32.40	44.00

[1] With no dependents. [2] Maximum with dependents. [3] No scale given.

In Table 2 is shown a comparison of the statutory and actual percentages of wages received for 1920 in the occupations enumerated above.

TABLE 2.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION, FOR 1920, BY SPECIFIED OCCUPATIONS.

State and city.	Statutory percentage.	Actual percentage weekly maximum compensation is of wages.							
		Bricklayers.	Carpenters.	Machinists, manufacturing shops.	Molders, iron.	Painters.	Plasterers.	Sheet-metal workers.	Structural-iron workers.
Alabama (Birmingham)	[1] 50.0	[1] 27.3	[1] 36.4	[1] 31.8	[1] 31.2	[1] 31.2	[1] 36.4	[1] 27.3	[1] 27.3
	[2] 60.0	[2] 34.1	[2] 45.5	[2] 39.8	[2] 39.1	[2] 39.0	[2] 45.5	[2] 34.1	[2] 34.1
California (San Francisco)	65.0	37.9	44.5	52.6	53.8	44.5	41.7	42.1	42.1
Colorado (Denver)	50.0	18.2	20.2	28.9	26.0	18.2	18.2	22.7	22.7
Connecticut (New Haven)	50.0	31.8	31.8	36.5	[3]	36.4	31.8	36.4	29.9
Illinois (Chicago)	[1] 50.0	[1] 21.8	[1] 21.8	[1] 27.3	[1] 23.8	[1] 21.8	[1] 21.8	[1] 21.8	[1] 21.8
	[2] 65.0	[2] 27.3	[2] 27.3	[2] 34.1	[2] 29.8	[2] 27.3	[2] 27.3	[2] 27.3	[2] 27.3
Indiana (Indianapolis)	55.0	24.0	29.3	36.7	30.5	33.0	34.3	30.0	24.0
Kentucky (Louisville)	65.0	29.6	42.6	[3]	37.6	45.5	34.1	42.6	34.1
Louisiana (New Orleans)	60.0	40.9	50.0	46.9	46.9	54.5	40.0	40.9	40.9
Maryland (Baltimore)	66.7	32.0	45.5	50.0	40.0	45.5	36.4	51.1	32.7
Massachusetts (Boston)	66.7	36.4	40.0	37.0	37.0	40.0	40.0	36.4	36.4
Michigan (Detroit)	60.0	25.5	31.8	26.5	29.2	25.5	25.5	25.5	25.5
Minnesota (Minneapolis)	66.7	27.3	34.1	37.9	31.7	34.1	30.3	34.1	39.0
Nebraska (Omaha)	66.7	27.3	30.3	36.8	36.8	34.1	39.3	34.1	29.6
New Hampshire (Manchester)	50.0	20.2	20.2	41.7	28.7	28.4	20.2	47.6	22.7
New Jersey (Newark)	66.7	21.8	27.3	33.3	28.4	27.3	21.8	27.3	24.2
New York (New York)	66.7	36.3	40.4	46.3	47.3	44.4	38.3	40.4	40.4
Ohio (Cleveland)	66.7	27.3	27.3	40.0	34.7	30.3	27.3	27.3	27.3
Oregon (Portland)	[4]	[1] 24.5	[1] 30.7	[1] 34.8	[1] 32.7	[1] 30.7	[1] 27.3	[1] 30.7	[1] 27.3
		[2] 40.9	[2] 51.1	[2] 58.1	[2] 54.5	[2] 51.1	[2] 45.5	[2] 51.1	[2] 45.5
Pennsylvania (Pittsburgh)	60.0	24.2	30.3	[3]	26.7	24.2	23.7	30.2	27.3
Rhode Island (Providence)	50.0	27.7	31.8	[3]	[3]	35.4	35.0	31.8	31.8
Tennessee (Memphis)	50.0	20.0	25.0	22.9	24.8	25.0	25.0	25.0	25.0
Texas (Dallas)	60.0	30.3	34.1	39.1	[3]	34.1	30.4	34.1	34.1
Utah (Salt Lake City)	60.0	29.1	32.3	38.1	38.1	36.4	29.1	36.4	32.3
Virginia (Richmond)	50.0	26.7	35.2	33.3	31.3	38.5	36.4	28.4	27.3
Washington (Seattle)	[4]	[1] 12.6	[1] 15.7	[1] 17.8	[1] 17.8	[1] 17.3	[1] 13.8	[1] 15.7	[1] 14.0
		[2] 22.0	[2] 27.5	[2] 31.0	[2] 31.0	[2] 30.3	[2] 24.2	[2] 27.5	[2] 24.5
Wisconsin (Milwaukee)	65.0	26.6	39.1	40.6	[3]	39.1	38.0	45.1	33.3

[1] With no dependents.
[2] Maximum with dependents.
[3] No scale given.
[4] A flat monthly pension not based on wages.

In Table 3 is shown a comparison of statutory and actual percentages of wages received by structural-iron workers for specified years. It also shows the increase, if any, in the weekly maximum from 1916 to 1920, and the increase, if any, in the statutory percentage between 1916 and 1920. It also shows, after applying the weekly maximum, the percentage of wages actually received as compensation in the years 1916, 1917, 1919, and 1920.

TABLE 3.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION BY STRUCTURAL-IRON WORKERS FOR SPECIFIED YEARS.

State and city.	Weekly maximum compensation.		Statutory percentage of compensation.		Per cent of wages actually received as compensation.			
	1916	1920	1916	1920	1916	1917	1919	1920
Alabama (Birmingham)	(1)	[2] $12.00 [3] 15.00	(1)	[2] 50.0 [3] 60.0	(1)	(1)	(1)	[2] 27.3 [3] 34.1
California (San Francisco)	$20.83	20.83	65.0	65.0	63.1	63.1	47.3	42.1
Colorado (Denver)	8.60	10.00	50.0	50.0	29.1	25.9	26.0	22.7
Connecticut (New Haven)	10.00	14.00	50.0	50.0	36.4	50.0	34.4	29.9
Illinois (Chicago)	12.00	[2] 12.00 [3] 15.00	50.0	[2] 50.0 [3] 65.0	40.1	[2] 39.5 [3] 49.4	[2] 31.2 [3] 39.0	[2] 21.8 [3] 27.3
Indiana (Indianapolis)	13.20	13.20	55.0	55.0	42.9	40.0	35.3	24.0
Kentucky (Louisville)	12.00	15.00	65.0	65.0	54.5	45.5	34.1	34.1
Louisiana (New Orleans)	10.00	18.00	50.0	60.0	36.4	36.4	54.5	40.9
Maryland (Baltimore)	12.00	18.00	50.0	66.7	43.6	43.6	27.3	32.7
Massachusetts (Boston)	10.00	16.00	66.7	66.7	36.4	46.3	45.4	36.4
Michigan (Detroit)	10.00	14.00	50.0	60.0	35.0	35.0	35.4	25.5
Minnesota (Minneapolis)	11.00	15.00	50.0	66.7	40.0	43.6	39.0	39.0
Nebraska (Omaha)	10.00	15.00	50.0	66.7	35.0	39.6	37.9	29.6
New Hampshire (Manchester)	10.00	10.00	50.0	50.0	(4)	(4)	(4)	22.7
New Jersey (Newark)	10.00	12.00	50.0	66.7	33.0	31.3	31.2	24.2
New York (New York)	15.00	20.00	66.7	66.7	51.4	49.6	39.0	40.4
Ohio (Cleveland)	12.00	15.00	66.7	66.7	39.0	34.1	34.1	27.3
Oregon (Portland)	[2] 10.38 [3] 17.31	[2] 13.49 [3] 22.50	(5)	(5)	[2] 37.7 [3] 60.0	[2] 33.7 [3] 56.2	[2] 23.6 [3] 39.3	[2] 27.3 [3] 45.5
Pennsylvania (Pittsburgh)	10.00	12.00	50.0	60.0	36.4	32.5	27.3	27.3
Rhode Island (Providence)	10.00	14.00	50.0	50.0	36.4	33.0	34.4	31.8
Tennessee (Memphis)	(1)	11.00	(1)	50.0	(1)	(1)	28.6	25.0
Texas (Dallas)	15.00	15.00	60.0	60.0	50.5	59.5	45.5	34.1
Utah (Salt Lake City)	(1)	16.00	(1)	60.0	(1)	39.6	38.4	32.3
Virginia (Richmond)	(1)	12.00	(1)	50.0	(1)	(1)	24.6	27.3
Washington (Seattle)	[2] 6.92 [3] 12.12	[2] 6.92 [3] 12.12	(5)	(5)	[2] 25.2 [3] 44.1	[2] 21.0 [3] 36.7	[2] 15.7 [3] 27.5	[2] 14.0 [3] 24.5
Wisconsin (Milwaukee)	9.75	14.63	65.0	65.0	35.5	35.5	41.6	33.3

[1] No law.
[2] With no dependents.
[3] Maximum with dependents.
[4] No scale given.
[5] A flat monthly pension not based on wages.

In Table 4 is shown a comparison of statutory and actual percentages of wages received under each compensation act in 1920 for weekly earnings of $25, $30, $35, and $40.

TABLE 4.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION UNDER STATE COMPENSATION ACTS FOR SPECIFIED WEEKLY EARNINGS IN 1920.

State.	Per cent provided for in law.	Per cent actually received by man earning per week—			
		$25	$30	$35	$40
Alabama	[1] 50.0 [2] 60.0	[1] 48.0 [2] 60.0	[1] 40.0 [2] 50.0	[1] 34.3 [2] 42.6	[1] 30.0 [2] 37.5
Alaska	50.0	50.0	50.0	50.0	50.0
Arizona	50.0	50.0	50.0	50.0	50.0
California	65.0	65.0	65.0	59.5	52.1
Colorado	50.0	40.0	33.3	28.6	25.0
Connecticut	50.0	50.0	46.7	40.0	35.0
Delaware	50.0	50.0	50.0	42.6	37.5
Georgia	50.0	48.0	40.0	34.3	30.0
Hawaii	60.0	60.0	60.0	51.4	45.0
Idaho	55.0	48.0	40.0	34.3	30.0
Illinois	[1] 50.0 [2] 65.0	[1] 48.0 [2] 60.0	[1] 40.0 [2] 50.0	[1] 34.3 [2] 42.6	[1] 30.0 [2] 37.5
Indiana	55.0	52.8	44.0	37.7	33.0
Iowa	60.0	60.0	50.0	42.6	37.5
Kansas	60.0	60.0	50.0	42.6	37.5
Kentucky	65.0	60.0	50.0	42.9	37.5

[1] With no dependents.
[2] Maximum with dependents.

TABLE 4.—COMPARISON OF STATUTORY AND ACTUAL PERCENTAGES OF WAGES RECEIVED AS COMPENSATION UNDER STATE COMPENSATION ACTS FOR SPECIFIED WEEKLY EARNINGS IN 1920—Concluded.

State.	Per cent provided for in law.	Per cent actually received by man earning per week—			
		$25	$30	$35	$40
Louisiana	60.0	60.0	60.0	51.4	45.0
Maine	60.0	60.0	50.0	42.6	37.5
Maryland	66.7	66.7	60.0	51.4	45.0
Massachusetts	66.7	64.0	53.3	45.7	40.0
Michigan	60.0	55.0	46.7	40.0	35.0
Minnesota	66.7	60.0	50.0	42.6	37.5
Missouri	66.7	60.0	50.0	42.6	37.5
Montana	50.0	50.0	41.7	35.7	31.3
Nebraska	66.7	60.0	50.0	42.6	37.5
Nevada	60.0	[1] 60.0 [2] 75.7	[1] 55.4 [2] 63.1	[1] 47.5 [2] 54.1	[1] 41.6 [2] 47.3
New Hampshire	50.0	40.0	33.3	28.6	25.0
New Jersey	66.7	48.0	40.0	34.3	30.0
New Mexico	50.0	48.0	40.0	34.3	30.0
New York	66.7	66.7	66.7	57.1	50.0
North Dakota	66.7	66.7	66.7	57.1	50.0
Ohio	66.7	60.0	50.0	42.6	37.5
Oklahoma	50.0	50.0	50.0	50.0	45.0
Oregon	[4]	[1] 54.0 [2] 78.0	[1] 45.0 [2] 75.0	[1] 38.6 [2] 64.3	[1] 33.7 [2] 56.3
Pennsylvania	60.0	48.0	40.0	34.3	30.0
Porto Rico	50.0	28.0	23.3	20.0	17.5
Rhode Island	50.0	50.0	46.7	40.0	35.0
South Dakota	55.0	48.0	40.0	34.3	30.0
Tennessee	50.0	44.0	36.7	31.4	27.5
Texas	60.0	60.0	50.0	42.6	37.5
Utah	60.0	60.0	53.3	45.7	40.0
Vermont	50.0	50.0	41.7	35.7	31.3
Virginia	50.0	48.0	40.0	34.3	30.0
Washington	[3]	[1] 27.7 [2] 48.5	[1] 23.1 [2] 40.4	[1] 19.8 [2] 34.6	[1] 17.3 [2] 30.3
West Virginia	50.0	48.0	40.0	34.3	30.0
Wisconsin	65.0	58.5	48.8	41.8	36.6
Wyoming	[3]	[1] 32.3 [2] 55.4	[1] 26.9 [2] 46.2	[1] 23.1 [2] 39.6	[1] 20.2 [2] 34.6
United States	66.7	61.5	51.3	43.9	38.5
British Columbia	55.0	55.0	55.0	55.0	55.0
Ontario	66.7	66.7	66.7	66.7	66.7

[1] With no dependents.
[2] Maximum with dependents.
[3] A flat monthly pension not based on wages.

An analysis of these tables shows to what extent the weekly maximums nullify the statutory percentages. Probably no other factor has been more instrumental in vitiating the beneficent purpose of workmen's compensation laws than this weekly maximum. In New Jersey, for example, a workman is supposed to receive 66⅔ per cent of his wage in case of injury. As a matter of fact, however, because of the operation of the $12 weekly maximum, instead of receiving 66⅔ per cent a bricklayer and a plasterer receive only 21.8 per cent; a structural-iron worker receives 24.2 per cent; a carpenter, a painter, and a sheet-metal worker receive 27.3 per cent; a molder, 28.4; and a machinist, 33.3. The effect of the weekly maximum in the other States can be obtained by referring to the tables.

Table 3 brings out the significant fact that although the weekly maximum and the statutory percentage have been increased in most of the States, yet because of the greater increase in wages the relative amount of compensation received in 1920 is less than it was in 1916.

The weekly maximum in New Jersey was increased from $10 to $12 and the percentage of wages was increased from 50 to 66⅔, yet the actual percentage received by structural-iron workers in 1916 in New Jersey was 33 per cent, whereas the actual percentage received in 1920 was only 24.2 per cent.

Furthermore, the percentages in the tables relate to temporary total disability accidents only. In case of permanent partial disabilities or in death cases the percentages would be still smaller.

Again, in computing the percentages the waiting periods were left out of consideration. It was assumed that compensation was paid from the date of the accident. The wage loss suffered by the injured workmen therefore is even greater than the percentages indicate. In order to show the effect of the waiting periods upon wage loss, the given wage percentages should be decreased by the following percentages: A 3-day waiting period by 2.8 per cent; a 7-day waiting period by 9.4 per cent; a 10-day waiting period by 14.4 per cent; a 14-day waiting period by 20.7 per cent.

As regards compensation cost as distinguished from accident cost, Oregon is the only State in which the workman is required to pay a portion of the compensation. In this State he is required by law to pay 1 cent for each working-day, which amounts to about 9 or 10 per cent of the total compensation costs. In all of the other States the employer at least pays the compensation provided in the law. However, in many of the Western States the employer has been able under the contract hospital system to place a large part of his compensation cost upon the workman. Under this contract system the employer enters into an agreement with a contract hospital whereby the latter is to take care of his accident cases. The workman is usually charged a dollar a month or more, which is deducted from his wages and turned over to the hospital. This dollar a month frequently pays for the entire cost of the medical service. Thus the employer is relieved of a part of his burden, which is shifted upon the workman. Another, and in my opinion unnecessary, burden which the employee must bear is the payment of attorney's fees. I believe that every injured workman should receive his compensation without any cost to him whatever. It should not be necessary for him to employ an attorney. Nor should he be required to attend a lot of hearings, wasting his time and the time of other witnesses.

Cost to employer.—A comparison of compensation costs to the employers under different insurance systems and in different jurisdictions is difficult of determination. There are two ways of approaching the problem: (1) By comparing insurance rates and (2) by comparing expense ratios. I tried to make a comparison of rates but gave it up because of the difficulties involved. There are too many complicating factors involved which affect the comparability of the result.

First. There is the difference in benefits. No reliable factor has yet been produced which will measure accurately the difference in benefits.

Second. Variations in classifications. You may say that a coal mine is a coal mine whether located in Pennsylvania, Ohio, or Washington. But a comparison of the manuals in the various States will disclose the fact that even a coal-mine classification does not mean the same thing in every State. In addition, you have

the problem of interpretation and application of the classification with which to deal.

Third. Identical industries or classifications vary considerably as to hazard in different States.

Fourth. Because of the operation of merit-rating schemes in vogue in most States the manual rates are not the rates actually charged.

Fifth. Even if the foregoing difficulties have been solved and comparable rates obtained, one does not know whether the insurance companies are actually writing business at those rates unless the State keeps strict supervision over rates. In half of the States no supervision is exercised.

Sixth. The policy of State funds and other insurance carriers differs as to dividends and reserves. Among some it is the practice to set the rates high enough to allow the return of dividends and to build up a comfortable reserve and surplus. Among others the rates are barely adequate to cover the cost of the current accidents.

Therefore, a comparison of manual rates in one State with the manual rates in another State does not get one very far.

The other method of comparing costs to employers is by means of the expense ratios of the insurance carriers. Final compensation insurance rates are the product of two factors: (1) The pure premium factor, which represents the actual loss cost, and (2) the expense loading factor, which represents the carrier's administrative expense for putting the benefits into effect. Here one can arrive at certain definite facts. The pure premium factor, i. e., the actual cost of accidents per $100 of pay roll for each industrial classification, is of course, the same for all carriers for rate-making purposes. The expense factor, however, varies with the type of insurance and reflects the difference in costs of insurance administration. The difference in the expense ratios of stock companies, mutuals, and State funds, therefore, represents the relative cost of compensation insurance to the employer under the different insurance systems. For the employer a comparison of costs under a stock company, a mutual, or a State fund becomes then a simple mathematical calculation.

The expense ratios of stock companies vary from 35 to 40 per cent, the average being about 37½; i. e., for every dollar of premiums collected by stock insurance companies 37½ cents goes for expenses and profits. The expense ratio of the mutuals ranges from 15 to 20 per cent. The competitive funds average about 12½ per cent, ranging from 6 and 7 to about 15 per cent. The exclusive State funds range from 3 per cent—less than 3 in Ohio—to about 7 or 8 per cent. Using one figure only, the average expense ratios are as follows: Stock companies, 37½ per cent; mutual companies, 20 per cent; competitive State funds, 12½ per cent; and exclusive State funds, 7½ per cent. Applying these percentages to the premium income you will get a comparison of the cost to the employer. I should say that, had every compensation State possessed an exclusive State fund and had all employers carrying compensation insurance insured therein, it would have saved these employers in the year 1919 at least $30,000,000. In other words, it costs the insured employers of the United States an extra $30,000,000 to

insure in stock and mutual companies. These figures are obtained simply by applying the difference in expense ratios to the total premium income. Of course, I have been assuming that they have the same type of service. Now, I want to take up—Mr. Chairman, how much time have I left?

The CHAIRMAN. You have already spoken an hour. I hope I will be forgiven for not having checked Mr. Hookstadt. He has been letting the light in on all of us in a way that I am sure has been appreciated, and I hope there is unanimous consent to let him go on with what he has to say.

Mr. HOOKSTADT. I will be brief. I had no idea that I had spoken an hour. I have spoken of cost. Now I shall take up service.

SERVICE.

A second factor in the comparison of compensation insurance systems is service. However, it is difficult to measure service because it does not easily lend itself to statistical proof. Three tests, however, may be applied: (1) Promptness of payment; (2) adequacy or liberality of payments, including liberality in interpreting the laws; and (3) accident prevention.

PROMPTNESS OF PAYMENTS.

The data showing promptness of payment were taken from the actual cases taken from the files of various industrial commissions for the years 1917, 1918, and 1919, being distributed as evenly as possible among the three years. The information recorded included date of the accident, date of receipt of accident by commission or fund, date of doctor's report and workman's claim and date such reports were received, date of agreement or award, and date of first payment. The results were tabulated and comparisons made by State and type of insurance. In some of the States I was unable to obtain the date of first payment because the commissions kept no record thereof. In such States I tried to obtain, if possible, the date of the compensation agreement or the date of the commission's award. However, in most States the date of first payment was available.

In order that accurate comparisons may be drawn from the data it will be necessary to take certain factors into consideration.

(1) The length of the waiting period must be taken into account. No payment is due until one week after the expiration of the waiting period. It is not fair, however, to subtract the entire waiting period from the average time between the date of accident and date of first payment, as shown in the tables. No payments can be made until the necessary reports of the accident have been filed with the commission or insurance carrier, and this takes a certain length of time. In fact, a study of the promptness with which accidents are reported in the several States shows that the length of the waiting period seems to be a negligible factor. For example, in Massachusetts, which has a 10-day period, accidents are reported more promptly than in any other State.

(2) A second factor to be taken into account is the practice in the several States as regards frequency of wage payments. In the Far West it is customary among many employers to pay monthly; in the

Middle West, biweekly; and in the East, weekly. Since compensation is supposed to be in lieu of wages, the first payment ordinarily is not made until the next regular pay day. Thus the frequency of wage payments will to a certain extent affect the promptness of compensation payments as shown in the table.

(3) A third factor is the size or area of the States compared. In the East the States are small, the population compact, and communication easy and rapid; whereas in the Far West the States are large and the population sparse. Other things being equal, one should expect more prompt payments in Massachusetts or Ohio than in California, Nevada, or British Columbia.

(4) A fourth factor to be considered is the nature of the industry. In the East, where manufacturing predominates, the industries are usually large, compact, and within easy reach of postal and telephone communication. In the Far West, again, many of the industries, such as lumbering or mining, are located in out-of-the-way places where communication is difficult.

The number of cases upon which the averages were based should also be taken into consideration. In some of the States I examined 1,000 or more, while in others the number was less than 100. The number of cases taken depended upon the accessibility of the records and also upon the type of State. In the competitive-fund States a larger number of cases was necessary in order to compare the different types of insurance in the State. In the exclusive-fund States such comparison was not necessary and consequently the number of cases was smaller. The averages of States in which the number of cases is under 100 should be used cautiously; deductions drawn therefrom are by no means conclusive, but are indicative in the light of other information.

Bearing in mind the foregoing factors, let us see how the several insurance systems in various States compare.

The following table shows the promptness of compensation payments by different insurance carriers in certain States arranged in ascending order. This table is a summary of a more detailed table (facing p. 210). The table includes only those States in which data as to first payments were obtainable; whereas the larger table contains also the States in which only data regarding promptness of awards and agreements were available. Column 2 shows the number of cases examined. Column 3 shows the waiting period for each State as of the year 1919. Column 4 shows the average (median) number of days elapsing between the date of accident and date of first payment. That is, in one-half of the cases the first payment was made before the number of days specified, and in the other half of the cases the first payment was made after that date. Columns 5 and 6 show the percentage of cases in which the first payment was made within 4 weeks and 7 weeks, respectively, from the date of the accident. Columns 7 and 8 show the percentage of cases in which no payment had been made at the end of 11 and 13 weeks, respectively, after the accident. In the case of Illinois and Michigan, the commissions had made an independent investigation, and their results are incorporated in the table. In all other cases the figures are based upon records as found in the files of the commissions.

PROMPTNESS OF COMPENSATION PAYMENTS BY DIFFERENT INSURANCE CARRIERS IN CERTAIN STATES, ARRANGED IN ASCENDING ORDER.

Insurance carrier.	Number of cases.	Waiting period (days).	Average interval (median) between date of accident and date of first payment (days).	Per cent of cases in which first payment was made within —		Per cent of cases in which no payments had been made at end of —	
				4 weeks after accident.	7 weeks after accident.	11 weeks after accident.	13 weeks after accident.
1	2	3	4	5	6	7	8
California (State fund)	404	7	26	58.1	83.8	6.3	4.1
Idaho (self-insurers)	190	7	26	54.2	81.0	6.7	5.7
Oregon (State fund)	403	0	28	54.1	87.1	2.7	1.7
Michigan (stock companies)	187	7	34	40.6	78.6	7.4	5.8
Michigan (self-insurers)	153	7	34	30.1	67.3	11.8	7.2
Maryland (State fund)	172	14	35	38.3	69.7	13.8	9.6
Indiana (insurance companies)	90	7	35	43.3	66.7	13.2	8.8
Nevada (State fund)	204	7	36	29.9	77.5	4.4	3.4
Utah (State fund)	49	3	38	36.8	75.5	12.2	10.2
British Columbia (State fund)	118	3	41	15.2	76.2	8.4	5.1
Idaho (insurance companies)	446	7	41	28.4	62.7	17.5	12.6
Illinois (stock companies) [1]	.....	7	44	.....	.....	.....	.....
Montana (self-insurers)	704	14	45	13.3	60.1	11.8	8.4
Montana (State fund)	355	14	46	7.9	61.2	10.6	8.2
Michigan (State fund)	30	7	48	13.3	53.2	33.4	33.4
Washington (State fund)	308	7	49	9.1	51.3	17.4	12.9
Colorado (insurance companies)	82	10	49	12.2	51.2	23.2	14.6
Illinois (mutual companies) [1]	.....	7	51	.....	.....	.....	.....
Illinois (interinsurers) [1]	.....	7	52	.....	.....	.....	.....
Colorado (self-insurers)	41	10	54	9.8	44.2	24.4	19.5
Illinois (self-insurers) [1]	.....	7	54	.....	.....	.....	.....
Colorado (State fund)	21	10	54	19.1	42.9	19.2	9.6
Ohio (State fund)	1,000	7	55	8.1	44.7	25.7	17.8
West Virginia (State fund)	184	7	59	7.6	35.8	32.6	21.1
Montana (stock companies)	207	14	65	6.7	31.0	36.2	26.1
Idaho (State fund)	176	7	80	4.5	24.9	50.4	38.0
Michigan (State fund) [2]	16	7	84	0.0	18.7	56.2	50.0

[1] Arithmetic average. Includes all cases for 1919. Computations made by Illinois Industrial Commission.
[2] Computation based upon investigation by Michigan Industrial Accident Board.

An examination of the above table shows that State funds have the best record and also the worst. Second, it shows great variations in each type of insurance carrier. Third, it shows that self-insurers, whom one would naturally expect to pay promptly, are just as slow in paying compensation as the casualty companies or State funds. Fourth, it shows an unconscionably long delay on the part of all carriers. Fifth, it effectively answers the argument of the insurance companies that they are more prompt in making compensation payments than the State funds.

Of the six exclusive State funds, three (Oregon, Nevada, and British Columbia) have a better record as regards promptness of payment than the average private insurance company. In the other three States (Ohio, Washington, and West Virginia) the reverse is true. In most of the competitive-fund States payments are made and claims handled more promptly by the State fund than by other insurance carriers. Moreover, it should be noted that the two competitive funds having the poorest records are not under the jurisdiction of compensation commissions, but are under the supervision of insurance departments.

Mr. LEE. Can you tell us why that is? Give us a reason. That is, what I am primarily interested in is the way in which you would correct that.

Mr. HOOKSTADT. Yes, I can give you my ideas on that, and I will eventually, but not to-day. It will take too much time. At present I am only stating the facts as I found them. Later on I hope to have some remedial suggestions to offer.

Probably the fairest and most convincing method of comparing State funds with private carriers would be to compare the best in each class. Let us, then, compare the competitive fund of California and the exclusive fund of Oregon with the Liberty Mutual Co. of Massachusetts. I am sorry Mr. Black is not here to read his paper. The company Mr. Black represents (the Liberty Mutual) is generally conceded to be one of the best managed companies in the United States. Mr. Black in his paper compares the Liberty Mutual with the Ohio fund as regards promptness of payments. In this comparison Ohio appears at a disadvantage. At the time no other comparative data were available. But now let us compare the Liberty Mutual, as shown by Mr. Black's own figures, with California and Oregon. Please bear in mind that the area of Massachusetts is small and the industries compact. Both California and Oregon are large States, and in each State lumbering is one of the principal industries. It takes a longer time to obtain reports and to make payments. Under the circumstances one would expect to find much better results in Massachusetts. But what are the facts? The percentage of cases in which the first payment had not been made within 6 weeks [22] are as follows: Liberty Mutual, 20 per cent; Oregon State fund 18.9 per cent; California State fund 22.1 per cent. Oregon, in spite of its large area, had a better record and California almost as good as the Liberty Mutual. Now take the percentage of cases where the first payment had not been made within 10 weeks: The Liberty Mutual, 6.3 per cent; the Oregon fund, 3.9 per cent; the California fund, 6.5 per cent. Again Oregon has a much better record and California equally as good as the Liberty. There you have a fair test, it seems to me, and it shows that the best State fund has a better record as to promptness of payment than the very best insurance company.

This long delay in making payments is due, at least so far as the State funds are concerned, to a number of causes. In the first place employers and physicians are not always prompt in reporting accidents. It is more difficult still to get the workmen to report their cases. In fact much of the delay is the direct result of the failure of the workmen to make claims. Then, too, the commissions must partially share the blame because they have inadequate follow-up methods or because their procedure is too complicated. Furthermore, several of the funds whose record is bad make no attempt to pay compensation promptly. Many of the commissions and funds are also handicapped in that they have an insufficient force to handle the claims properly and to make the necessary investigations.

[22] In case of the Liberty Mutual 40 days should be substituted for 6 weeks.

ADEQUACY OR LIBERALITY OF PAYMENTS.

A second test of service is the adequacy or liberality of compensation payments, including liberality of interpretation of the acts. Are the benefits as provided in the laws actually being paid or is there a tendency among insurance carriers to fight compensation claims, to resort to technicalities, to make settlements for less than the law provides, to make understatements as to the severity of injuries, or to make no offer of payment, hoping the injured workman will neglect to press his claim? These questions do not readily lend themselves to statistical proof. The most reliable method of attacking the problem would be to make an investigation of a certain number of actual cases in each State and ascertain just what was done. Because of limited means such a study was not made by the bureau. Several States, however, have made such investigations. Among these are the Connor investigation in New York and a study of insurance companies made by the Industrial Commission of Illinois.

First let us take up the State funds. In most of the State fund States it is the policy of the commission to be liberal in making awards to claimants. Where the State fund is under the jurisdiction and supervision of the industrial commission, the latter seldom allows a State fund to appeal from the decision of the commission to the courts, whereas self-insurers and private insurance companies, of course, have such right of appeal. Again, the commissions are inclined to disregard legal technicalities and even to resort to extra legal means to award compensation in meritorious cases—practices which are estopped when the insurance carrier is a party in the case. As so well said by Commissioner Pillsbury, State funds are warm-blooded financial institutions whereas private insurance carriers are cold-blooded institutions.

Not all of the State funds, however, have adopted the policy of liberal interpretation. Three State funds (West Virginia, Washington, and Michigan) seem to have interpreted the compensation law more in the interest of the employer than of the injured workman. In Washington the commission in rendering decisions against the workman has been repeatedly overruled by the courts. Moreover, in this State the procedure relative to claim payments is so hedged about with formalities, many of which seem unnecessary, that the injured workmen suffer as a consequence. In West Virginia, of 183 cases selected at random I found that 19 per cent received only the weekly minimum of $5, 28 per cent received less than $7, 40 per cent received less than $9, and only 32 per cent received the maximum of $12. Most of these cases represented coal miners and were for the year 1919. These absurdly low weekly compensation amounts were due to two causes: (1) To the peculiar interpretation the commissioner has placed upon this provision of the law, and (2) to the fact that in many cases no thorough attempt was made to obtain the actual wages of the worker. The commissioner determines the weekly wages by dividing the actual earnings for stated periods of 2, 4, 6, or 12 months by the number of weeks actually worked in those periods. For example, if an employee worked only five days in a two months' period his earnings for these five days would be considered his earnings for two months. Only wages earned from other employers in the same or similar industries are taken into account. The com-

missioner requests the last employer to furnish the workman's wages from other employers, stating in his form request that unless such wage data are received the workman will be given the minimum compensation. In Michigan the State fund is under the supervision of the insurance department and of a board of directors representing the policyholders of the fund. The fund is not only exceedingly slow in making compensation payments, but is constantly at odds with the industrial commission over the proper handling of its claims.

So much for State funds. It is a practice of insurance companies, when criticizing State funds, tacitly to assume that private carriers, if not altogether perfect, at least can not be charged with the faults which they attribute to State funds. Such an assumption is contrary to the facts. In practically every State investigated the commissioners expressed dissatisfaction with the practices of the private insurance companies. They charged many of the companies with taking advantage of technicalities, with unnecessary delay in reporting accidents and in making payments, and with making incorrect reports and evading payments. In fact, in one competitive fund State the chairman of the commission stated that if all the insurance carriers were like the State fund the commission with its present staff of employees could administer the compensation acts of three States as easily as it now does one State.

Two important investigations—one in New York and one in Illinois—have brought out certain facts regarding the practices of insurance companies. In New York, at the request of the governor, Mr. J. F. Connor last year made an exhaustive investigation into the management and affairs of the New York Industrial Commission. This investigation made public several highly significant facts. Among the most important of these was the large number of underpayments of compensation claims on the part of the employers and insurance carriers, particularly self-insurers and stock companies. Of 1,000 unselected cases of direct settlements 114 were found to have been underpaid. This underpayment amounted to $52,279.84, or $459 per case. The total underpayments on the basis of the 1,000 cases would amount to $1,400,000 annually. An analysis of the 114 cases shows that the private stock companies and the self-insured employers were especially guilty of this "short-changing" practice. The following table shows the average amount originally paid by direct settlement and the additional amount awarded after investigation and rehearing, classified by type of insurance:

AVERAGE AMOUNT ORIGINALLY PAID BY DIRECT SETTLEMENT IN 114 COMPENSATION CASES AND AVERAGE ADDITIONAL COMPENSATION AWARDED ON REHEARING.

Type of insurance.	Number of underpaid cases.	Average amount originally paid by direct settlement.	Average additional compensation awarded on rehearing.
Stock insurance companies	79	$114	$383
Mutual insurance companies	6	29	61
Self-insurers	29	157	747
Total	114	120	459

The Illinois Industrial Commission has legal authority to examine into the operation of casualty insurance companies doing business in the State. Under this authority the commission has investigated seven or eight companies. Some were found to be all right. Others—four companies in particular—were found to be very bad. One of these companies was a reciprocal, one was a mutual, and two were stock companies. The following is a summary of the reports of the commission's investigator. Permission to make use of these reports, which are in typewritten form, was granted to the bureau by the industrial commission.

Reciprocal company.—The commission found that the total working staff of one reciprocal company consisted of an attorney in fact and one part-time female employee. The books had not been posted for six months. The company had a deficit of $19,578. Lump-sum settlements had been made without the approval of the industrial commission. The rates charged were too low for safety. No accident prevention work had been done. Of 27 unpaid claims 12 were over three months due and some six or eight months. The investigator found 110 cases of underpayment, the maximum underpayment being $102.50. One hundred and eighty-one cases needed investigation; most of these were either permanent partial disability or indeterminate temporary disability cases. Nothing had been paid in most of these 181 cases.

Stock company A.—After examining into the conditions of this company the investigator reported to the commission as follows:

> I find that where compensation has been paid injured employees there has been no picayunish shaving of the amount provided by the workmen's compensation act, but there have been numerous cases where compensation was due and not paid. * * * You will note in most of them a disposition not to play fair with the injured employee and to take advantage of technicalities and avoid payment on the flimsiest of excuses.
>
> In justice to the present claim manager it should be stated that since July 1, when he assumed charge of claim settlements, there has been a decided improvement in the handling of these matters, but his predecessor seemed to think that it was all right to avoid paying compensation if he could "get away with it." The home office of the company was aware of this state of affairs and in some cases complimented him for his ingenuity in avoiding payment.
>
> In several cases settlement contracts have been drawn up and signed by the injured employees and payment made in a lump sum without any order from the commission and without filing the settlement contract with this office. The usual excuse given in these cases to the home office was that the local claim manager knew that the commission would not approve such a settlement. The home office acquiesced in the handling of such cases, and not once did they advise the claim agent that such a procedure was wrong, both from the legal and moral viewpoint.

The following cases were taken from the investigator's report as exemplifying the practice of this company as regards its settlement of claims:

> Case No. 1. A boy had lost four fingers by amputation. "The only reason given for not paying compensation was that no written claim was made within six months."
>
> Case No. 2. "Della H—— was employed by the D—— Lunch Co. Dr. W——, in his report to the insurance company, states that this employee has lost the use of the first phalange and offers the gratuitous advice that after she goes back to work she would forget all about the compensation for loss of use, and, further, he believed that the industrial commission would undoubtedly award her for such loss of use if the case was brought before it." Therefore nothing was paid her except for temporary total disability.
>
> Case No. 3. The claim agent of the insurance company had required the injured employee to sign a receipt for $120 but paid him only $100, "and advised the home office that he saved the expense of an arbitration and, in addition, $20 by not going before the commission with this settlement."

Stock company B.—With respect to this company the commission's investigator reports that the local adjuster was overzealous to serve the company's interests. The investigator discovered 64 cases of underpayment, the maximum underpayment being $330. The insurance company had not been reporting its accidents or filing compensation receipts. The following two cases were taken from the investigator's report:

Case No. 1. An injured employee had lost an eye on which a cataract had formed. The local adjuster wrote to the home office as follows: "I will endeavor to dispose of it in the best manner possible without letting it go to the industrial board if we can arrange to keep it from doing so." The home office replied as follows: "I note that the injured probably had a small percentage of vision before this accident. This may be a dangerous case to permit to go to the board."

Case No. 2. The following letter was sent by the adjuster to the home office: "For your information would state that this injured did not return to work for the assured, and we are not tracing him up to see if he is working at the present time, as we do not wish to stir up a claim."

Mutual company.—In its investigation of one mutual company the commission reports that said company was unduly technical in the settlement of claims; furthermore, that the company sought the assistance of its assured employers in hushing up cases. Average wages were found to be incorrectly determined. There were found 17 cases of underpayment, the maximum underpayment being $21. Twenty-six cases were questionable and needed investigation. In many of these 26 cases the company denied liability. In one case involving concussion of the brain the insurance company doctor wrote to the company as follows: "I would again suggest that if it were possible for B—— & Co. to discharge him after he had worked awhile I am sure it would be advisable."

In view of the foregoing facts it is difficult to regard seriously the contentions of private insurance companies that they furnish better service than do the State funds. Nor are the above conditions peculiar to Illinois and New York. Similar investigations in other States would undoubtedly disclose a similar condition.

Prof. Whitney states that "the stock and mutual companies both spend about 7 per cent of the premium for claim adjustment, the monopolistic State funds spend only 1 or 2 per cent," while some of the competitive funds spend 3 or 4 per cent. Prof. Whitney further states that "the greater economy of monopoly can not explain the whole discrepancy between the cost of adjustment under private insurance and under a monopolistic State fund. The balance of the difference is explained by the fact that proper claim adjustment can not be made for 1 per cent or anything like it. * * * The workman should not only get what he is entitled to but he should get it promptly." All of which is very true. But the conclusions Prof. Whitney draws from the foregoing premises are hardly justified by the facts. He says:

However, I do not know of any reason for thinking that any part of the 7 per cent that is spent by the stock companies and mutual companies is wasted. I am inclined to think that these are the very carriers which can be trusted to give exactly the proper emphasis to this part of the work. With them the tendencies toward economy on the one side and toward thoroughness on the other are better balanced than under monopolistic State control, where the tendencies are strongly in the direction of narrow economy and perfunctory treatment.

From the insurance company's point of view the expenditure of 7 per cent for claim adjustment may not be wasted. But from the

social or employee's standpoint the amount expended is not necessarily a true test of service performed. How much of this 7 per cent is spent in the interest of the employee and how much is spent to defeat the employee's interests? The Illinois and New York investigations show that as far as some insurance companies are concerned the inclination to dispense justice is not particularly strong.

ACCIDENT PREVENTION.

The third test of service is the quantity and quality of effective accident prevention work performed by the different types of insurance carrier. In this department of compensation administration both industrial commissions and State funds are weak. Most of the compensation commissions are not authorized by law to do safety work. Moreover, unfortunately, many commissioners take no interest in accident prevention, holding that their functions are primarily judicial. As regards competitive State funds New York is the only State in which one of the regular functions of the fund is accident prevention. California performs excellent safety work, but this work is done by the industrial commission apart from the State fund. In some of the exclusive State funds the industrial commissions have undertaken comprehensive safety campaigns. In most of the compensation States, however, the accident prevention work—such as it is—is done by other State departments, usually the factory inspection department.

On the other hand, many of the private insurance companies have well-organized safety departments and are doing excellent safety work. However, it is difficult to measure the effectiveness of the safety work actually performed because there are few reliable statistical data showing reduction in accident severity rates. Frequently the inspection work of the insurance companies is done for competitive purposes. That is, much of their inspection is done to get or keep business irrespective of whether or not it results in actual reduction of accidents.

SECURITY.

The third test for comparing compensation insurance systems is security—security to both employer and employee. When an employer in good faith insures his risk in a responsible authorized insurance company he should be protected against further liability. But, on the other hand, the employee should not be deprived of his compensation benefits through or because of the insolvency of the employer or the insurance carrier. The employees' interests are paramount and should be given first consideration.

Stock insurance companies.—The security or solvency of private stock companies depends first upon adequate insurance rates and second upon sufficient reserves. Both should be under the strict supervision and regulation of the State. No company can long maintain its solvency with inadequate rates. Under stress of cutthroat competition the temptation to reduce rates below the safety level becomes too great to resist. State regulation is necessary to maintain the solvency of the insurance carrier and to protect the compensation rights of injured employees. But notwithstanding these obvious facts nearly one-half of the compensation States make no provision for rate regulation. Small

wonder then that such a state of affairs has resulted in several disastrous failures during the past three or four years. The failure of such companies as the Guardian Casualty & Guaranty Co. of Utah, the Casualty Co. of America, and the Commonwealth Bonding & Insurance Co. of Texas resulted in thousands of dollars of unpaid compensation claims. In those States in which the law held both the employer and insurer individually liable these losses had to be met by the employers. In other States, in which employers are relieved of further liability when insured, the injured claimants were the sufferers. The Legislature of California appropriated between $60,000 and $70,000 of public money to pay in full the larger claims of injured employees because of the bankruptcy of the Commonwealth Bonding & Insurance Co. of Texas. Many smaller claims have not yet been taken care of. Whether the State should, as maintained by some, either guarantee the solvency of insurance companies authorized to do business or make good the losses directly out of the State treasury where such insolvency is due to lax insurance laws or their administration is not here discussed. By no means, however, should the injured employee be permitted to suffer.

Mutual companies.—The provisions as to the adequacy of rates and reserves for stock companies should apply also to mutuals. In certain States, however, mutual companies, because of their lower expense ratio, are allowed to issue rates lower than those demanded of stock companies. As to the advisability of this practice insurance actuaries differ. Employers insured in mutual companies, however, are subject to assessment in the event that the losses exceed the premiums. The mutual plan, therefore, seems to offer a greater degree of security to the employee and a less degree to the employer than stock companies. No large mutual company has failed as yet.

State funds.—Not a single injured employee has lost one cent of compensation through the financial failure of State funds, either competitive or exclusive. The nearest approach to this condition was in Washington in the case of a powder explosion, the first year the act became operative. One large powder manufacturer questioned the constitutionality of the act and refused to pay his premium into the fund. Until the constitutional question was decided this one classification was temporarily insolvent, with the result that the dependents of the workmen killed in the explosion were delayed in receiving their compensation benefits.

The question of failure or insolvency is practically inconceivable as far as the exclusive State funds are concerned. If the premium income is insufficient to meet the year's losses it is only necessary to increase the rates. This is also true as regards the funds in some of the competitive fund States. In other competitive fund States, New York for example, the employer when insured in the fund is relieved of all further liability. The fund therefore becomes the employee's sole protection. Nor does any State having such a fund assume liability in case of the fund's insolvency. On the contrary, some of the States specifically disclaim liability beyond the amount of the fund. Since no State fund has as yet become insolvent the policy of the State as regards compensation claims in the event of the fund's insolvency can not be ascertained. However, its probable attitude may be seen from the experience in California where, as already noted, the legislature of the State appropriated over $60,000 to pay

claims resulting from the bankruptcy of a private stock insurance company.

Some of the competitive funds are not required to and do not report their experience to the State insurance department as private companies must. It is maintained, moreover, that because their right to reject undesirable risks is circumscribed by law, State funds should have greater freedom than private insurance companies with respect to rates. It is further contended that the power of supervision over rates, if exercised by a hostile insurance department, could hamper if not actually put a State fund out of business.

Self-insurers.—Practically all of the compensation States except those having strictly exclusive State funds permit employers to carry their own risk subject to such safeguards as the law may prescribe. About one-half of the compensation laws require self-insured employers either to furnish proof of solvency or to deposit such security as is required by the compensation commission or insurance department. In other States they must deposit security in addition to furnishing proof of solvency. Few of the State commissions, however, require deposit of security in every case. They hold that it is not necessary in the case of large companies with unquestioned assets. The filing of mere financial statements, however, showing the assets and liabilities, is an insufficient guaranty of ability to meet long-continuing payments or to withstand a catastrophe successfully. The financial statement of a Wisconsin self-insurer showed net assets of $5,000,000, yet the concern shortly afterwards went into the hands of a receiver.

Experience as to self-insurance has been reported to the bureau by the compensation commissions of 21 States. In 15 of these States no self-insured employer has failed or gone into the hands of a receiver; 3 States reported one failure each and 1 State reported two failures, but in all these cases the compensation claims were paid either by the receiver or through security which had been deposited. Only 2 States reported failures—1 small concern in each State—which resulted in several claims being unpaid.

While the security record of self-insurers has been excellent, this favorable experience may be due in part to good fortune or pure chance. It is also quite possible that compensation commissions are not always cognizant of every failure of self-insured employers, because such failures may not be reported to them. This was actually the case in Illinois. In such cases the injured claimant usually consults an attorney, who takes the matter before a bankruptcy court and the commission remains in ignorance of the facts.

SELF-INSURANCE.

Most of the comparisons made heretofore were principally between private casualty companies and State funds. I wish now to review briefly the self-insurers, i. e., those employers who under certain conditions are permitted to carry their own risks. The self-insurance privilege is usually limited to the larger employers.

Probably the greatest social benefit derivable from self-insurance is the impetus it gives to accident prevention. Self-insured employers at least have a strong incentive to prevent accidents because there exists a more direct relationship between their accidents and com-

pensation costs. They are also in a position to pay compensation promptly but, strange as it may seem, their record in this respect is no better than either the State funds or private companies.

One important objection to self-insurance is that it introduces the incentive to deny or pare compensation claims, since the total accident cost to the employer is dependent not only upon the number and severity of his accidents but also upon the cost of those accidents. Consequently, if he can evade payment or reduce the amount he will thereby reduce his total accident cost. Many self-insured employers do not resort to such practices. They pay not only what the law specifies but some even pay full wages during disability and furnish unlimited medical service. However, I am informed by a number of industrial commissions that many self-insured employers take advantage of their peculiar position under the law to evade their just compensation obligations. Some of these employers will make a great show of generosity as regards temporary disabilities, but suddenly develop a niggardly or technical spirit in case of major permanent disabilities or other costly injuries.

Probably the most important objection to self-insurance is that it makes the employer practically the final arbiter in the settlement of compensation cases. The unwillingness of the employees to antagonize their employer through fear of losing their jobs will many times prevent them from appealing to the industrial commission. This latent power of intimidation possessed by self-insured employers, though they may be entirely just, effectively inhibits injured workmen from seeking redress from the commission. The commission, moreover, since it obtains its information from the accident reports of the employer, is not in a position to judge the merits of the case unless the injured employee brings the matter to its attention.

SUMMARY CONCLUSIONS.

Cost.—The cost of compensation insurance to employers under different insurance systems may be indicated by their expense ratios. The average expense ratio of stock companies is approximately 37½ per cent; of mutual companies, about 20 per cent; of competitive State funds, about 12½ per cent; and of exclusive State funds, from 5 to 7½ per cent. Under an exclusive State fund, therefore, the cost to employers would be 30 per cent less than under stock insurance and 12½ per cent less than under mutual insurance. The total saving to insured employers of the United States, if all were insured in exclusive State funds, would be over $30,000,000 annually. This figure is obtained by applying the differences between the expense ratios of the exclusive State fund and stock and mutual companies to their respective annual premiums.

Service.—As regards service comparisons are difficult because of the great variations among different insurance systems. As to promptness of payments there is little to choose among the different types of insurance carriers. Some of the State funds have the best record while some have the poorest. The same thing may be said with respect to stock and mutual companies. However, a comparison of the best managed State fund with one of the best managed private companies shows that the best State fund is more prompt in its payments than the best private company. Another significant

COMPARISON OF COMPENSATION INSURANCE SYSTEMS AS TO PROMPTNESS IN CLAIM PAYMENTS AND PROCEDURE.

Period (in days).	STATES HAVING EXCLUSIVE STATE FUNDS.						STATES HAVING COMPETITIVE STATE FUNDS.																														PRIVATE INSURANCE STATES.			Period (in days).
	Oregon.	Nevada.	British Columbia.	Washington.	Ohio.	West Virginia.	Montana.			Utah.	Colorado.			Maryland.				Idaho.			California.	New York.			Pennsylvania.[1]							Michigan.										Massachusetts.	Indiana.	Illinois.[1]	
	Interval between date of accident and date of approval of award.[2]	Interval between date of accident and date of approval of award.[2]	Interval between date of accident and date check mailed.	Interval between date of accident and date of first payment.	Interval between date of accident and date of hearing.[2]	Interval between date of accident and date of voucher.[3]	Interval between date of accident and date of first payment.			Interval between date of accident and date of voucher.[3]	Interval between date of accident and date of receipt of first payment.			Interval between date of accident and date of first payment.	Interval between date of accident and date of award.			Interval between date of accident and date of first payment.			Interval between date of accident and date of first payment.	Interval between date of accident and date of hearing.			Interval between date of accident and date of approval of agreement.[2]							Interval between date of accident and date of first payment.	Interval between date of accident and date agreement received.[1]				Interval between date of accident and date of receipt of first payment.[1]			Interval between date of accident and date agreement received.	Interval between date of accident and date receipt made out.	Interval between date of accident and date of first payment.	
	403 cases.	204 cases.	118 cases.	308 cases.	1,000 cases.	184 cases.	355 cases.	207 cases.	704 cases.	49 cases.	21 cases.	82 cases.	41 cases.	172 cases.	15 cases.	90 cases.	37 cases.	176 cases.	446 cases.	190 cases.	404 cases.	12 cases.	125 cases.	18 cases.	4,093 cases.	3,587 cases.	478 cases	840 cases.	335 cases.	334 cases.	414 cases.	30 cases.	29 cases.	212 cases.	133 cases.	160 cases.	16 cases.	187 cases.	153 cases.	186 cases.	90 cases.		
	Fund.	Fund.	Stock.	Self.	Fund.	Fund.	Private.	Self.	Fund.	Fund.	Private.	Self.	Fund.	Private.	Self.	Fund.	Fund.	Private.	Self.	Fund.	Fund.	Private.	Self.	All insurance carriers.	All self-insurers.	Fund.	First largest stock company.	Second largest stock company.	Third largest stock company.	Largest mutual company.	Fund.	Fund.	Stock.	Mutual.	Self.	Fund.	Stock.	Self.				
	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.	Per ct.		
1 to 7	1.2						1.4	0.5	1.3					2.9	6.7		2.7	0.6	3.1	16.8	11.4				0.2	0.1		0.1	0.3		0.2	3.3		0.5	0.7	1.2		0.5	0.7	1.1		1 to 7.
8 to 14	13.4	2.0	0.8				4.1			4.1				11.6	6.7	3.3		2.8	12.3	21.1	25.2				1.8	1.3	2.9	1.3	3.0	0.9	.2		13.7	7.5	3.6	9.4		12.3	7.8	17.7	25.6	8 to 14.
15 to 21	18.9	10.3	5.9	4.2	1.1	0.5	1.7	1.9	3.8	14.3	4.8	3.7	4.9	23.8	33.3	11.1	2.7	1.1	13.0	16.3	21.5			5.6	7.0	6.0	9.0	8.3	5.7	6.3	3.6	10.0	17.2	19.3	13.0	20.0		24.6	18.3	27.4	12.2	15 to 21.
22 to 28	20.6	17.6	8.5	4.9	7.0	7.1	4.8	4.3	8.2	18.4	14.3	8.5	4.9	12.8	20.0	26.7	29.7	5.1	12.6	12.6	10.9		2.4		12.6	11.0	12.8	11.8	9.6	11.7	15.5	13.3	6.9	19.8	14.5	12.5		16.6	19.6	23.1	6.7	22 to 28.
29 to 35	16.6	21.1	21.2	14.0	13.1	11.4	6.5	5.3	14.3	12.2	9.5	12.2	10.0	9.3	13.3	20.0	27.0	6.8	13.0	6.8	8.9	8.3	4.8		12.8	15.5	14.4	13.3	9.0	9.0	21.0	13.3	10.3	9.4	15.2	13.7	6.2	13.9	6.5	5.9	6.7	29 to 35.
36 to 42	10.4	16.7	16.9	15.9	13.3	9.2	25.1	10.0	18.6	18.4	14.3	12.2	4.9	9.3	13.3	20.0	27.0	6.8	13.0	6.8	8.9	8.3	4.8		12.8	15.5	14.4	13.3	9.0	9.0	21.0	13.3	10.3	9.4	15.2	13.7	6.2	13.9	6.5	5.9	6.7	36 to 42.
43 to 49	6.0	9.8	22.9	12.3	10.2	7.6	21.7	9.0	13.9	8.1		14.6	19.5	9.3	13.3	16.6	16.2	8.5	8.7	7.4	5.9	16.7	8.8	5.6	12.5	13.8	13.4	11.4	12.2	16.2	17.6	13.3	3.4	9.0	9.4	8.1	12.5	7.5	11.1	4.8	10.0	43 to 49.
50 to 56	4.5	8.8	4.2	11.7	9.3	8.7	9.9	7.7	11.9		14.3	6.1	10.0	5.2		5.6	2.7	5.1	7.4	5.8	5.4	8.3	8.0	5.6	11.3	11.0	10.9	10.0	13.1	10.5	15.9		3.4	5.7	12.3	8.7	18.7	4.8	9.8	6.5	7.8	50 to 56.
57 to 63	3.7	3.9	5.9	8.1	7.5	6.0	9.0	9.2	5.8	2.0		10.0	7.3	7.0	6.7	2.2		9.1	5.4	3.2	2.2	16.7	14.4		8.2	9.2	6.5	8.6	9.3	7.5	7.5	3.3	3.4	5.2	5.1	3.7		1.6	4.6	2.2	4.4	57 to 63.
64 to 70	.7	3.4	3.4	5.8	12.8	6.5	6.5	10.6	6.5	2.0		6.1	12.2	3.5		6.7	2.7	6.8	4.9	2.6	1.7	16.7	8.8	11.1	7.2	6.2	5.9	7.7	6.0	7.8	5.1	6.7	6.9	2.4	5.1	3.7		5.9	3.3	2.2	4.4	64 to 70.
71 to 77	1.2	2.0	1.7	4.5		10.3	2.8	5.8	3.7	5.1	23.8	3.7	2.4	.6		2.2	2.7	3.4	2.0	.5	.5	16.7	10.4	38.9	4.8	5.5	4.6	5.6	5.1	4.8	3.4	3.3	13.7	3.8	4.3	3.1	6.2	2.1	3.3	.5	5.3	71 to 77.
78 to 84	.5		.8	3.6		8.2	1.1	4.8	2.0	2.0	4.8	3.7	4.9	1.7			2.7	6.2	1.8	.5	1.7		9.6		4.1	3.5	2.9	4.4	4.5	4.8	2.4			1.9	2.9	3.1	6.2	.5	3.3	.5	2.2	78 to 84.
85 to 91	.5	1.0	2.5	1.9	7.9	3.3	1.4	5.3	1.4		4.8	4.9		2.3		1.1	2.7	6.2	3.1	.5	.5	16.7	8.0		3.2	2.9	4.6	2.9	5.7	4.2	1.7		3.4	1.4	1.4	3.1		1.1	1.3	.5	2.2	85 to 91.
92 to 121	3.4	3.4	7.8	10.1	10.3	3.9	12.1	4.4	6.1	4.8	6.1	14.6	5.2		2.2	2.7	15.3	5.4	2.6	2.7		13.6	22.2	12.3	12.0	10.9	12.7	14.3	12.6	4.8	16.7	10.3	4.7	4.3	2.5	25.0	2.1	2.0	2.7	3.3	92 to 121.
122 to 151	1.7		1.7	1.9	4.1	8.5	2.0	3.9	1.7		4.8	7.3	4.9	1.7		1.1		9.1	3.4	2.1	.2		1.6									10.0		2.8	.7	1.2	12.5	.5	2.6	.5		122 to 151.
152 to 182				1.9	1.5	3.8	.6	1.4	1.0					1.2		2.7		6.8	1.8	.5	1.0		5.6	5.6									3.4		2.2	1.2	12.5			1.1	2.2	152 to 182.
183 and over				1.3	2.1	.5	1.7	8.7	1.3	4.1		1.2		1.7		1.1	2.7	6.8	2.0	.5	.2		4.0	5.6	2.0	2.0	1.3	1.8	2.4	3.9	1.0	6.7	3.4	3.8	3.6	1.2		3.2	2.6	1.1	3.3	183 and over.
Total	99.9	100.0	99.8	99.8	100.0	99.9	100.1	100.5	99.8	99.8	100.2	100.3	100.5	99.8	100.0	99.9	99.9	99.7	99.9	99.8	99.6	100.1	100.0	100.2	100.0	100.0	100.1	99.9	100.2	100.2	99.9	99.9	99.4	100.0	99.7	99.5	99.8	100.4	100.1	99.9	99.8		Total.
Median (in days)	28	36	41	49	55	59	46	65	45	38	54	49	54	35	31	40	40	80	41	26	26	63	73	74	59	60	55	59	64	63	50	48	49	35	43	35	84	34	34	29	35	Stock,[4] 44 Mutual,[4] 51 Self,[4] 54 Reciprocals,[4] 52	Median (in days).
Claims paid or settlements made within—																																											Claims paid or settlements made within—
2 weeks	14.6	2.0	0.8			0.5	1.4	0.5	1.3	4.1				2.9	6.7		2.7	0.6	3.1	16.8	11.4				0.2	0.1		0.1	0.3		0.2	3.3		3.3	2.1	4.3		3.7	4.0	3.2	5.5	2 weeks.
3 weeks	33.5	12.3	6.7	4.2	1.1	0.5	3.1	2.4	5.1	18.4	4.8	3.7	4.9	14.5	13.4	3.3		3.4	15.4	37.9	36.6				2.0	1.4	2.9	1.4	3.3	0.9	.4	3.3	13.7	10.8	5.7	1.7		16.0	11.8	20.9	31.1	3 weeks.
4 weeks	54.1	29.9	15.2	9.1	8.1	7.6	7.9	6.7	13.3	36.8	19.1	12.2	9.8	33.3	46.7	14.4	5.4	4.5	28.4	54.2	58.1			5.6	9.0	7.4	11.9	9.7	9.0	7.2	4.0	13.3	30.9	30.1	19.7	33.7		40.6	30.1	48.3	43.3	4 weeks.
5 weeks	70.7	51.0	36.4	23.1	21.2	19.0	14.4	12.0	27.6	49.0	28.6	24.4	19.8	51.1	66.7	41.1	35.1	9.6	41.0	66.8	69.0		2.4	5.6	21.6	18.4	24.7	21.5	18.6	18.9	19.5	26.6	37.8	49.9	33.2	46.2		57.2	49.7	71.4	50.0	5 weeks.
6 weeks	81.1	67.7	53.3	39.0	34.5	28.2	39.5	22.0	46.2	67.4	42.9	36.6	24.7	60.4	80.0	61.1	62.1	16.4	54.0	73.6	77.9	8.3	7.2	5.6	34.4	33.9	39.1	34.8	27.6	27.9	40.5	39.9	48.1	59.3	48.4	59.9	6.2	71.1	56.2	77.3	56.7	6 weeks.
7 weeks	87.1	77.5	76.2	51.3	44.7	35.8	61.2	31.0	60.1	75.5	42.9	51.2	44.2	69.7	93.3	77.7	78.3	24.9	62.7	81.0	83.8	25.0	16.0	11.2	46.9	47.7	52.5	46.2	39.8	44.1	58.1	53.2	51.5	68.3	57.8	68.0	13.7	75.6	67.3	82.1	66.7	7 weeks.
8 weeks	91.6	86.3	80.4	63.0	54.0	44.5	71.1	38.7	72.0	75.5	57.2	57.3	51.2	74.9	93.3	83.3	81.0	30.0	70.1	86.8	89.2	33.3	24.0	16.8	58.2	58.7	63.4	56.2	52.9	54.6	71.0	53.2	54.9	74.0	70.1	76.7	37.4	83.4	77.1	88.6	74.5	8 weeks.
9 weeks	95.3	90.2	86.3	71.1	61.5	50.5	80.1	47.9	77.8	77.5	57.2	67.3	61.5	81.9	100.0	85.5	81.0	39.1	75.5	90.0	91.4	50.0	33.4	16.8	66.4	67.9	69.9	64.8	62.2	62.1	81.5	56.5	58.3	79.2	75.2	80.4	37.4	85.0	81.7	90.8	78.9	9 weeks.
Claims unpaid or settlements not made at end of—																																											Claims unpaid or settlements not made at end of—
13 weeks	1.7	3.4	5.1	12.9	17.8	21.1	8.2	26.1	8.4	10.2	9.6	14.6	19.5	9.6		4.4	8.1	38.0	12.6	5.7	4.1		24.8	33.4	14.3	14.0	12.2	14.5	16.7	16.5	5.8	33.4	17.1	11.3	10.8	6.1	50.0	5.8	7.2	5.4	8.8	13 weeks.
12 weeks	2.2	4.4	7.6	14.8	25.7	24.4	9.6	31.4	9.8	10.2	14.4	19.5	19.5	12.1		5.5	10.8	44.2	15.7	6.2	4.6	16.7	32.8	33.4	17.5	16.9	16.8	17.4	22.4	20.7	7.5	33.4	20.5	12.7	12.2	9.2	50.0	6.9	8.5	5.9	11.0	12 weeks.
11 weeks	2.7	4.4	8.4	18.4	25.7	32.6	10.7	36.2	11.8	12.2	19.2	23.2	24.4	13.8		5.5	13.5	50.4	17.5	6.7	6.2	16.7	42.4	33.4	21.6	20.4	19.7	21.8	26.9	25.5	9.9	33.4	20.5	14.6	15.1	12.3	56.2	7.4	11.8	6.4	13.2	11 weeks.
10 weeks	3.9	6.4	10.1	22.9	38.5	42.9	13.5	42.0	15.5	20.3	43.0	26.9	26.8	14.4		7.7	16.2	53.8	19.5	7.2	6.5	33.4	52.8	72.3	26.4	25.9	24.3	27.4	32.0	30.3	13.3	36.7	34.2	18.4	19.4	15.4	62.4	9.5	15.1	6.9	16.5	10 weeks.
9 weeks	4.6	9.8	13.5	28.7	38.5	49.4	20.0	52.6	22.0	22.3	43.0	33.0	39.0	17.9		14.4	18.9	60.6	24.4	9.8	8.2	50.1	61.6	83.4	33.6	32.1	30.2	35.1	38.0	38.1	18.4	43.4	41.1	20.8	24.5	19.1	62.4	15.4	18.4	9.1	20.9	9 weeks.

[1] Data compiled by State industrial commission.

[2] Check mailed 2 days later. These 2 days have been added to the median.

[3] The periods are 1 day less than those given in the margin. For example, 1 to 14 days should read 1 to 13 days; 15 to 21 days should read 14 to 20 days, etc.

[4] Arithmetic average.

fact developed by the investigation is that self-insured employers, whom one would expect to pay promptly, are no more prompt in this respect than either State funds or private carriers. As regards liberality of payment most of the State funds are more liberal in this respect than either stock or mutual companies. As regards accident prevention some of the private companies are doing excellent safety work whereas few of the State funds have done any effective safety work.

Security.—Thus far no injured workman has lost one cent of compensation because of the insolvency of State insurance funds, nor has any large mutual company become insolvent. On the other hand, there have been several disastrous failures of private stock companies during the last three or four years. These failures have resulted in hundreds of thousands of dollars in unpaid claims. As regards self-insurance, the experience of 21 States has been reported to the United States Bureau of Labor Statistics. In 15 of these States no self-insured employer has failed or gone into the hands of a receiver; 3 States reported one failure each and 1 State reported two failures, but in all these cases the compensation claims were paid either by the receiver or through security which had been deposited. Only two States reported failures—one small concern in each State—which resulted in several claims being unpaid.

The CHAIRMAN. I think you will agree that if we got nothing else from coming to this convention, it has been worth while to come here and learn what Mr. Hookstadt has told us as to our various failings in his very excellent talk this morning. We look forward with a good deal of interest to receiving the written report which I understand will follow, embodying what he has said and the statistical proof of these statements.

The next item on the program this morning is a paper by Prof. Whitney, manager of the National Workmen's Compensation Service Bureau, of New York.

COST, SERVICE, AND SECURITY UNDER VARIOUS SYSTEMS OF INSURANCE.

BY ALBERT W. WHITNEY, GENERAL MANAGER, NATIONAL WORKMEN'S COMPENSATION SERVICE BUREAU.

I assume that we are trying to discover what form of insurance carrier has the greatest social value—that is, what carrier can give the greatest service at the least cost. The matter must therefore be discussed wholly from the standpoint of the public.

The subject is a difficult one at best, but much that has been said and written on it has certainly only added to the confusion. I do not believe, for instance, that anything is to be gained by a direct comparison of rates. The conditions under which the rates are applied are so different that such comparison is misleading. Furthermore it goes without saying that any figures based on income and outgo are wholly misleading.

As a basis for a comparison that will have a value we must analyze the cost into its elements. Here we are met by the fact that the figures of most of the State funds are not obtainable, partly because no separation of the elements of cost has been made, and partly because the expenses are intermingled with the expenses of the commissions. Figures are obtainable for the stock companies and for the mutuals, and for such of the State funds as report their experience to the State insurance departments.

There is one element of the cost that can be dismissed with the least possible mention; that is the pure premium cost. The last word has been said for the immediate present on this subject in the revision of rates that has just been completed by the National Council on Workmen's Compensation Insurance; this revision has been made on the basis of twelve and a half billion dollars of pay-roll exposure. The experience of many carriers in many States has been reduced to a common basis, and combined. The results, representing the combined judgment of so many carriers and so many commissions, may be taken to be a true picture of pure premium cost.

Any variation from this standard pure premium cost must be due to (*a*) insufficient exposure; (*b*) differing local conditions; (*c*) selection of risks; (*d*) improvement of risks; or (*e*) inequitable settlement of claims.

The mutuals have in general had a loss-ratio experience that is more favorable than the average. This is doubtless due, for the most part, to selection; they have been able to attract risks that showed a favorable experience.

State funds can scarcely take advantage of selection; certainly the monopolistic State funds can not do so, and as their accident prevention service is weak or nonexistent, a loss-cost, in their case, that is consistently less than normal must presumably imply unfair settlements, unless it can be shown to be due in some legitimate way to their

peculiar way of doing business; similarly, an abnormally high loss-cost must indicate an excessive liberality. Briefly, my contention is that loss-cost is something that should be the same for all carriers, and where it is not so the situation calls for an explanation, an explanation, however, that should not be difficult to find.

The really difficult and actually disputatious part of the problem has to do with that part of the premium that goes for expense—that is, for cost other than loss-cost.

I am able to give herewith through the courtesy of the New York Insurance Department advance figures for the premiums and expenses on the country-wide experience for calendar year 1919, of the stock companies and mutual companies entered in New York State; these are from official Schedule W figures; the figures have not been audited, however.

For the stock companies the earned premiums were $85,599,230, the expenses incurred $33,107,541; expressed in percentages, the total expense ratio was 38.68, of which the claim expense was 7.22, the inspection expense 2.08, taxes 3.63, home-office expense 8.72, and acquisition expense 17.03; for the mutuals the earned premiums were $18,649,005, the expenses incurred $3,672,010; the total expense ratio was 19.69, of which the claim expense was 7.11, the inspection expense 2.25, taxes 2.06, home-office expense 5.10, and acquisition expense 3.17.

The expense ratio varies from apparently less than 3 per cent in the case of the Ohio State fund to an average of 39 per cent in the case of the stock companies. This startling difference needs explanation.

I should like to be able to take the expense items up one by one and determine what each ought to be in order to secure the most satisfactory results from the workmen's compensation system. Unfortunately the problem is so involved that such definite, categorical results can not be expected. I believe, however, that this is the proper line of attack, and I shall make an attempt at such an analysis, even though the results may be inconclusive and otherwise open to criticism.

First, the distinction must be recognized between conditions under monopoly and conditions under competition. In general, the expense of operation under a monopoly should be less than under competition; this applies to certain elements at least of the cost of workmen's compensation. The stock and mutual companies both spend about 7 per cent of the premium for claim adjustment; the monopolistic State funds, on the other hand, spend only 1 or 2 per cent. Aside from the partial, but I believe significant, explanation of this which I shall offer, this is to be accounted for by the greater economies in adjustment which can be effected by having all the business under a single control. Competition costs money.

The greater economy of monopoly can not explain the whole of the discrepancy between the cost of adjustment under private insurance and under a monopolistic State fund. The balance of the difference is explained by the fact that proper claim adjustment can not be made for 1 per cent of the premium or for anything like it.

The claim adjusting of the Ohio State fund is done mostly by correspondence, under which a high degree of justice can not be produced; furthermore, the delay in making settlements has been very great. A niggardliness that fails to provide for thorough and

prompt claim adjustment can not be defended. The workman should not only get what he is entitled to, but he should get it promptly. Every day of delay in the payment of compensation counts up as a heavy discount against its value.

It is not strange that claim adjustment should be expensive. Claim adjustment is the act of dispensing justice. The cases that are to be adjudicated are multitudinous and technical. Justice can not be done without thorough and expert investigation. It is not discreditable that money should be spent for this; it is discreditable that it should not. It is even better that some money should be wasted than that the injured man should not receive what is due him.

However, I do not know of any reason for thinking that any part of the 7 per cent that is spent by the stock companies and mutual companies is wasted. I am inclined to think that these are the very carriers which can be trusted to give exactly the proper emphasis to this part of the work. With them the tendencies toward economy on the one side and toward thoroughness on the other are better balanced than under monopolistic State control, where the tendencies are strongly in the direction of narrow economy and perfunctory treatment.

I notice that the California State fund has spent over 4 per cent and the New York State fund has spent 3½ per cent in adjustment. I understand, however, that its adjustments are not satisfactory to the New York State fund itself and that the expense for this item will be increased. We seem justified in saying that at least 6 per cent should be spent for adjustment under the conditions that obtain in general if it is to be done properly; this is under competition; under monopoly the amount should be less.

The second element of expense is the expense of inspection, including the expense of rating bureaus. For both stock and mutual companies this is about 2 per cent. Every cent of this money is well spent and not only brings its return in lowered rates to the assured, but, in what is more important, saves lives and limbs for the worker. This element of insurance cost should be increased rather than diminished; it might be made twice as great and still have the highest social value. This is the field in which the monopolistic State funds are most notably weak. So far as I know their service is negligible.

In the matter of taxes the stock companies pay 3½ per cent and the mutuals 2. The only State fund, so far as I know, to pay taxes is the California State fund, to which the credit is due of having voluntarily put itself upon a tax-paying basis for the sake of equity and competitive equality.

It is an injustice to the taxpayers of a State to have its State fund exempted from paying taxes; it means only that the burden which the State fund's policyholders should bear along with all others is shifted to the shoulders of the general taxpayer. There may well be some difference between the tax rate of the stock company and the mutual, to represent a levy upon stock-company profits. If the figures are right, however, the difference indicated above is too great.

The home office expense of the stock companies is nearly 9 per cent and of the mutuals 5. This difference is accounted for partly by the fact that the stock companies are more careful in their audits and partly by the expense to the stock companies of keeping track of commissions and other agency matters. This latter element prob-

ably amounts to as much as 3 per cent. The home office expense of the competitive State funds is comparable with that of the mutuals. I can not see why the home office expense of a monopolistic State fund should be appreciably less if its business is to be handled with efficiency.

We now come to the item of acquisition cost, that element of cost that differentiates the carriers operating through agents from those that deal directly with the assured. The difference in acquisition cost between the stock companies and the mutuals is about 14 per cent. To this should be added the 3 per cent difference in home office expense, which is due to the cost of the agency system. This makes a difference of 17 per cent in all that arises out of the agency system.

The mutuals have some acquisition expense, as do also the competitive State funds; I understand that the New York State fund is planning to spend more for acquisition by inaugurating a system under which its auditors are made use of for solicitation purposes.

From the foregoing analysis it is evident that there are two outstanding lines of cleavage between insurance carriers. Each of these differences needs discussion, not only from the standpoint of expense but from the standpoint of service.

First, there is the question of monopoly versus competition. On one side are the monopolistic State funds, on the other the stock companies, the mutuals, and the reciprocals.

Second, there is the question of agency versus nonagency. Here the line is not drawn quite sharply, but in general we have the stock companies against the rest of the field.

The more fundamental and the more important of these questions is that of the relative advantages of competition and of monopoly. The monopolistic State funds are operating at a lower expense than either the stock companies, the mutual companies, or the competitive State funds. Is this sufficient justification for monopoly?

This part of the question breaks up into two parts: First, a comparison of competition with monopoly as it actually works out in existing State funds and, second, a discussion of competition versus monopoly under the best conditions. My belief is that in actual practice the present monopolistic State funds are seriously sacrificing not only justice, but social well-being in general, in the desire for economy. The State funds are not doing justice to the injured, either in the matter of correct distribution or prompt distribution of compensation; they are not doing justice to the assured, either in correctly determining his rate or in helping him to improve his hazard; they are not doing justice to the taxpayer, for they are saddling him not only with the expense of taxes which their assured do not pay, but with the expense of the industrial commission, which in some other States, such as New York, is borne by the companies, and hence indirectly by the assured.

If a monopolistic State fund were to undertake prompt and thorough claim settlement, inspection of risks, payment of taxes, effective auditing and equitable determination of rates, it would greatly increase its expense, but it would also greatly increase the value of its service to the assured and to the public.

So much for things as they are. Now let us deal with a hypothetical State fund which has not sacrificed social efficiency to economy. Such a State fund should be able to operate more eco-

nomically under monopoly than under competition. Is competition still worth while under such circumstances? Competition is admitted to be an expense; is it an expense that is justified? We must be able to show concrete results or competition is condemned on the ground of its cost.

The determination of this question depends upon the matter that is to be the subject of monopoly. I suppose none of us would desire to see the mail service as a whole handled competitively, although competition governs minor contracts even here. Nor should we desire to see the taxes collected by private enterprise. On the other hand, only the most thoroughgoing socialists would desire to see such a business as selling shoes taken over by the State. The proponents of State monopoly in the field of workmen's compensation base their case upon the contention that workmen's compensation insurance is closely analogous to a tax, particularly in view of its compulsory character. If this contention could be substantiated the argument for a State monopoly would be strong.

The supporters of State monopoly have been led into the error of thinking that workmen's compensation insurance is a simple thing involving only an elementary type of fiduciary relation. This appears not only in their general attitude as aforesaid but in the naive actuarial principles that they have embodied in their laws. Nothing could be further from the truth. Workmen's compensation is not simple; it is not simple either in the conception of social justice upon which it is based, nor in its practical implications, nor in its latent possibilities. The development of these implications and possibilities should not be left to bureaucratic control; there is needed the clash of many minds; methods should be tested in the crucible of competition.

Insurance is not a simple idea; it is not only complicated in actual practice but it is complicated in its possibilities as a social force. It is a system by means of which the solidarity of interests that is found in socialism can be secured without the evils of socialism and without a sacrifice of the benefits of individualism. Is it desirable that the development and use of such an instrument should be put under the control of a State monopoly or of any kind of monopoly?

Workmen's compensation itself is based upon a new theory of justice, a revolutionary theory of justice that substitutes actual social need for an academic theory of individual fault. Need we be surprised if in cutting ourselves loose from the old justice we find implications that we had not foreseen? Can we, in fact, stop with a conception of a justice of restitution—must we not entertain the larger conception of a justice of prevention? It is not enough for justice to work out an amelioration of the past; it must make a better future. This thought has been developed by Mr. Louis Bartlett, the mayor of Berkeley, in an article on "The newer justice" in the September Atlantic Monthly, in which he says: "* * * Justice is not merely the enforcement of rights by the courts. It is not a matter of merely remedying past conduct or redressing wrongs that have been committed. It should consist also in ordering life so that injuries do not occur."

All this is latent in the concept of workmen's compensation. But is this imaginative field, teeming with possibilities of the highest social

significance, to be turned over for development to the stupidity of a bureaucratic control? It is precisely this larger requirement that has made workmen's compensation not a fit subject for a monopoly. It is precisely here as a matter of actual practice that the monopolistic State funds have made their most signal failure. They have visualized workmen's compensation in its most matter-of-fact, unimaginative form, as purely a problem of collection and distribution. Even in this field they have dispensed a poor type of justice both to the assured and to the injured. The tendencies in the monopolistic system are all toward narrow economies which quite fail to see the requirements of the larger and finer justice. The monopolistic State funds have totally overlooked the opportunities for the development of workmen's compensation on its preventive side.

There is nothing of greater importance in the field of practical social philosophy than the imaginative will to develop all the possibilities that are latent in our institutions. We want not merely the direct effect; we want the indirect effects. We want not merely the undertone; we want the overtones as well. We want not merely the primary product; we want the by-products, so far as they are good.

I doubt if we realize how many of the most important elements of our life are secondary. Happiness itself is not primary; it can not be had by striving for it; it is a by-product of work. The modern development of industry has shown that the best results can not be secured unless industry is looked at as only a part of life in general. The solution of the industrial problem brings with it safety, sanitation, good housing, clinics, playgrounds, vocational education, entertainment; in fact, almost all the elements of life.

As a matter of fact, it has been the interest in safety that has to a considerable extent opened up this field; and to a considerable extent the development of safety as a by-product of workmen's compensation has been due to the insurance companies.

The private insurance carriers with some of the competitive State funds are spending more than a million dollars a year in the development of the larger idea of justice. I refer particularly to the development and administration by bureaus of a rating system that shall do supreme justice to the assured, and that shall at the same time operate to reduce the hazard. They are spending far more in their own offices in developing the statistical, actuarial and engineering background.

I presume you may all be familiar with the merit-rating systems that have been developed by the private insurance companies, but, as a matter of record, may I briefly explain them? John Jones desires a rate upon his machine shop. It is not sufficient to predicate his rate solely upon the hazard of the class. That must be the basis, to be sure, but there are good machine shops and bad machine shops. Partly as a matter of pure justice, partly as an incentive to improve conditions, partly as a sheer competitive necessity, it is necessary to develop a system by which John Jones shall obtain a rate that will measure his own individual hazard. This has been done by the successive application of two plans, first, a modification of the rate by a schedule of credits and debits upon the result of the physical inspection of the individual plant, and, second, by a still further modification on the basis of the actual experience of the risk. These plans

are called schedule rating and experience rating. They were originated by the stock companies (and later developed by the National Council) as a competitive necessity. It was necessary to make right rates, for otherwise the business could not be held against the competition of carriers that were free to charge any rates they pleased and against the tendency to self-insure. It is safe to say that no such system would have been developed under a monopolistic State fund. The nearest approach is a crude experience rating which is used in Ohio, but which is far from producing equitable results. Merit rating is an example of expert technical work which is the product of competition.

I scarcely need to point out the important effect of merit rating upon accident prevention. A tangible economic incentive is given to the assured to improve his risk; and the practical effect has been the spending of millions of dollars by the assured in accident prevention, all of which and more too is returned to him in the form of lowered rates; society is the gainer by the saving of thousands of lives and limbs.

This is only one of various opportunities for social betterment, which an imaginative treatment of insurance will discover. Another such field, which has been scarcely touched, is rehabilitation. I wish that this association might take the initiative in bringing about a conference between its members and the insurance carriers in order to discover how to amend the compensation laws so as to offer an economic inducement for the development of rehabilitation. If there is an opportunity under the law—that is, if the return of the injured man to work is recognized in a reduction in compensation to be paid—the insurance companies will bring the force of rehabilitation into action and produce an economic gain to the worker, to the assured, and to society. Under a monopoly there is little incentive for this.

With the second general question, the relative merits of agency versus nonagency, and the relative merits of the various forms of carrier in particular, I have much less concern with. In common with every other good citizen, I am desirous of seeing those institutions develop and flourish that will produce the greatest social well-being. I do not presume to know what those are; I do not presume to know the needs of the world. I not only prefer to leave this matter to be decided by competition, but I suspect that this way of deciding it has the advantage of being a fundamental social process.

The stock companies have at present, and have always had, the great bulk of workmen's compensation business. The mutual companies and the competitive State funds are, however, making a signal advance and an interesting and significant competitive situation has arisen. In this I have every reason to believe that the public is competent to decide what it wants if it is given the opportunity to exercise its choice.

The question as between the stock companies and the mutuals is perfectly clean-cut. It is simply this: Is there a difference of 19 points between the value of stock insurance and the value of mutual insurance?

It is highly desirable that these two types of insurance should coexist, for they represent two opposite tendencies and their competitive influence each upon the other is wholesome. With all due con-

sideration for the fact that some mutuals are operating more expensively than others, and that some are giving better service than others, and for the fact that some stock companies are giving poorer service than others, the fundamental distinction nevertheless between stock insurance and mutual insurance is as follows: Mutual insurance makes its appeal to the desire for economy; it is essentially a cheap insurance and is sold to those who are willing for the sake of making a saving to accept a somewhat inferior grade of protection. Stock insurance is sold, or should be sold, on the basis of its quality. Its protection is not only superior but it is carried directly to the assured through an agent; it should carry with it in every way a superior service. It is wholly desirable that the tendency toward cheapness and the tendency toward high quality should be continually holding each other in check. The tendency on both sides should be in the direction of producing sound insurance and good service at a reasonable price. Insurance must not be made so good that the price is excessive; it must not be made so cheap as seriously to affect its quality. It is the function of the employer by the free exercise of his choice to decide where the balance shall lie, and he should be aided in this choice by having the advantage of the fullest opportunity to ascertain the facts.

The competitive problem for the mutual is whether its dividend will offset the lower quality of its protection and service; the competitive problem for the stock company is whether its superior protection and service will offset its increased cost.

Insurance in general can not be sold without solicitation, and the agency system is the concrete recognition of that fact. The situation in the field of workmen's compensation is, however, peculiar because of the fact that this form of insurance is virtually compulsory. To a very considerable extent, however, even here the solicitation by the agent is a social asset, and even a necessity if insurance is to be made universal; but yet in this field particularly the agent is left with the serious problem of showing that he can give a service that will represent the difference in cost arising out of the agency system. The competitive problem for the agent is therefore one of service. Can he so impregnate his business with service that it is worth the difference in cost? The verdict is to be given by the public. If the verdict is against the agent he will either lose his business or he will have to accept a lower fee.

In closing, and at the risk of seeming academic, may I say a few words of a more general nature? I venture to say that the world is more in need of right processes than of results. The world is full of actual accomplishment; much of it is bad. Wealth is being piled up by processes, many of which do not stand up under the test of social justice; nor can all the accomplishments of labor be justified on the grounds of social right.

Germany built up a wonderful system of social and industrial prosperity, including the most elaborate system of social insurance that has ever been developed, but her life and culture was founded on a false basis and the structure has fallen. There is one way to avoid revolution and that is by giving free opportunity for evolution. Evolution is that gradual growth that is controlled by a perpetual contact with reality; that is, the actual needs of the world;

revolution is that sudden and cataclysmic adjustment that becomes necessary when the forces that normally control are prevented from acting.

Competition is one of these forces. Competition is an ever-acting force, which selects what is worth keeping and eliminates the rest. When this force is not allowed to act systems grow up which are out of line with the world's needs. They must then be gotten rid of, but this can be done only by the exercise of other forces of a disruptive nature. Economic force is slow but it is more sure than political force. If under fair and open competition one particular type of insurance can drive the others from the field or if under such conditions a balance is found, the result has significance and permanence. The creation of a State monopoly means little; an institution that has come in through political action can also go out through political action.

Competition is not wholly good; for instance, it is expensive, but any expense or loss of efficiency that is the result of stopping to plumb up our work with the world's needs is not a loss in the long run.

Some of the other effects of competition are evil; these must be eliminated; the regulation of competition should be one of the important functions of the State.

This brings me to the question of competitive State funds. A State fund can be run well; I have the greatest admiration for the best of them, the California State fund. Every citizen must rejoice at the fact that a State has been able to administer a trust with such intelligence and integrity. Few States, however, under existing political conditions could be so successful.

I can not believe it desirable that States in general should enter this field, provided proper results can be otherwise secured. I believe it is in general better for the State to act as regulator rather than as competitor. My own feeling in this matter goes far back to the springs of human life. Surely the essence of life is not wholly or even mostly in concrete, tangible accomplishment; it lies rather in the experience and character that are wrought out of living. That State is doing the best for its citizens which gives them not the most highly perfected world in which to live but the richest opportunity for work. To be specific, I believe that, unless there is some very good reason to the contrary, the work of developing such a business as workmen's compensation belongs to the citizen and not to the State, not alone because he should be able to do it better, but because he has a right to play the game for its own sake; is not this the essence of democracy?

The CHAIRMAN. The next item on the morning program is a paper by Mr. S. Bruce Black, of the Liberty Mutual Insurance Co., of Boston, Mass. Mr. Black is not here, but his paper is available, and I am afraid we will not have time to have it read this morning. With your permission I will direct that it be embodied in the records of the convention.

MUTUAL INSURANCE.

BY S. BRUCE BLACK, VICE PRESIDENT AND ACTUARY, LIBERTY MUTUAL INSURANCE CO., BOSTON, MASS.

[This paper was submitted but not read.]

Mutual insurance is the oldest form of insurance. In 1696 the "Hand in Hand," a mutual fire insurance company, was organized in England. It prospered as such continuously until 1905, when, with assets of $15,000,000, it combined with another insurance company. In 1752 the first American insurance company, "Philadelphia Contributionship," was organized, with Benjamin Franklin as a director, to write fire insurance on the mutual plan. In 1759 the first life insurance company in America was formed, also on the mutual plan. These two companies are still doing business. In 1887 the first American liability insurance company was formed, and on the mutual plan, and it is still doing business successfully. It was not by accident that the earliest insurance business was done on the mutual plan. Insurance is mutual in principle. It is cooperation among individuals or corporations for protection against losses from happenings unpredictable as to time or extent, or both.

Early in the development of commerce there was the need of protection from losses of the sea. Then there developed the need of protection against losses by fire; and so on. Very naturally, individuals and firms cooperated to achieve mutual protection. To-day, as always in the past, individuals and corporations are cooperating through countless associations for a variety of purposes. It was when mutual insurance companies had demonstrated that insurance could be conducted as a business that persons with money to risk saw in insurance a chance for profit and stock companies came into the field, and, let it be added, with entire propriety.

Mutual insurance is not an experiment, neither from the standpoint of age nor size. As everyone knows, the great bulk of life insurance is written by mutual companies. The giants in the insurance business, such as the New York Life, Metropolitan, the Equitable, the Prudential, and the Northwestern, are all mutual companies. Who has not heard of the factory mutual fire insurance companies of New England, which have been for three-quarters of a century an essential part of the manufacturing development of New England, and which have extended their operations throughout the East and Middle West until it is said that 90 per cent of the improved factory risks east of the Mississippi are insured in these so-called "factory mutuals"? These companies are noted for their direct savings to policyholders through economical administration, but much more noted as leaders in the elimination of fire hazards.

You are particularly interested in compensation insurance. Most of the mutual companies writing this class have been organized since the passage of the compensation acts, while most of the stock companies now writing this class had been previously writing employers' liability insurance, or so-called negligence insurance, for many years.

In spite of this, and in spite of very restrictive laws in many States, restrictive as compared with the laws regulating stock companies, mutual companies have been extraordinarily successful. In 1913 something like 12 mutual companies wrote less than $2,500,000 in compensation premiums; in 1916 there were about 40 such companies writing around $7,500,000, while in 1919 the same number wrote over $26,000,000 in compensation premiums.

In States where mutual companies began with the beginning of compensation insurance they now write a large share of the total business. For example, in Massachusetts out of a total of $13,500,000 premiums written in 1919, six mutual companies wrote $6,500,000, while the balance was divided among 21 stock companies. In percentage the mutuals wrote in 1919 47 per cent of the total business of the State, as compared with 26 per cent in 1916 and 19 per cent in 1913.

Time has tested the principle of mutuality in insurance. That it has been found to be sound is proven in the success of mutual companies in all lines of insurance. The success of mutual compensation carriers would indicate that in this field mutual companies are to become as prominent as in life insurance. The efficacy of any form of compensation insurance carrier is tested by three criteria:

1. The certainty and promptness with which it gets to the injured employee the benefits to which he is entitled by law.

2. The ability of the company to reduce the likelihood of injuries to employees of its assureds and to mitigate the serious results of injuries when suffered.

3. The accomplishment of these results as economically as is possible without in any way lessening the ability of the carrier to produce such results.

The certainty of payments, assuming, of course, a willingness to pay, depends primarily upon the financial security back of the contract that the insurance carrier has to sell. The laws of our States and the administrators of those laws presume that any carrier licensed to do business is financially able to fulfill its contracted obligations, for it is upon this assumption that a license is given. But, unfortunately, not all companies, even though licensed, have been able to pay their just claims, and in many States there are injured employees and dependents of injured employees who have failed to get all, or even a part sometimes, of the benefits to which they are entitled; and in many States employers are paying benefits to injured employees which insurance carriers had contracted to pay, but have been unable to fulfill their obligations. Do not think for a moment that these failures have been mutual companies, as stock companies would have you infer.

So it is that the injured employee and the employer are vitally interested in the security behind the insurance contract. Among mutual companies, as among stock companies or among State funds, or among interinsurers, some companies are much larger and stronger than others. But as a class, size for size, mutual companies offer greater security than the other kinds of carriers. Mutual carriers of compensation insurance are almost without exception possessed of substantial surpluses for the meeting of unusual losses; they operate on a basis whereby they return dividends up to 30 per cent of the annual premiums-earned largely from savings in the cost of adminis-

tration, and this margin is available, if needed, to pay losses. Then, almost without exception, mutual companies reinsure themselves against catastrophic losses. The maximum insurance retained by the company does not as a rule exceed $50,000.

Let us illustrate by an example: The Liberty Mutual of Boston had net premiums in 1919 of over $5,000,000 and a surplus of over $800,000. It has regularly returned a 30 per cent dividend to its policyholders, and this dividend is largely savings in the cost of administration, money spent and not saved by stock companies. In addition it carried reinsurance against any catastrophe over $50,000, so that the largest catastrophe could have added but 1 per cent of its premium to the loss ratio. Supposing during that year, due to inadequate rates, a very high accident rate, or for any other conceivable reason, the losses of the company should have doubled. What resources would have been available to pay such losses? We would have, first, our surplus of $800,000, and, second, we would have had 30 per cent of our premiums, or $1,500,000 which we returned as dividends, which we could have used to pay losses, making available $2,300,000 with which to pay the unheard of and inconceivable thing in so large a company—a doubling of the losses; and we would have paid the losses and still have had some surplus. If, with the same surplus, we had had $10,000,000 in premiums, we would have had available for increased losses $3,800,000, and with $25,000,000 in premiums we would have had $8,300,000 for increased losses. Now, for a stock company with $5,000,000 of premiums to have an equal amount available to pay losses would require a capital and surplus of $2,300,000, and of 35 stock companies writing compensation insurance reported in the Spectator Handy Chart for 1920, only eight companies have a combined capital and surplus of this amount. Now, if this stock company with such a capital and surplus of $2,300,000 writes $10,000,000 in premiums, it would still have only $2,300,000 available, while the mutual used as an illustration would have $3,800,000. The margin of saving that a mutual company makes over the cost of stock companies and returns in the form of dividends is with its surplus a very real guaranty to the injured employee that he will get the money to which he is entitled.

It should be added that in most States mutual and stock companies are required by law to maintain reserves on the same basis, and all States should require companies of whatever kind to be on the same reserve basis. There is another feature of mutual insurance that should be discussed in this connection, and that is the liability to assessment. State laws require a certain capital—often less than $200,000—before a stock company can write workmen's compensation insurance. With this capital the company may proceed to write any volume of premiums, no matter how large. On the other hand, mutual compensation carriers frequently have surpluses many times the capital required of a stock company, and in addition have the protection of the dividend margin, and an assessment liability usually equal to once the annual premium.

The Liberty Mutual, to illustrate, with over $5,000,000 in premiums in 1919 and a surplus of $800,000, and dividends of 30 per cent of the premiums, has in addition $5,000,000, which, if ever needed, which is inconceivable, could be made available. There is no stock company that has behind it for each dollar of premium, which represents the

exposure to loss, the ability to pay that this mutual has. And as the company grows the dividend margin over the assessment liability increases in like proportion. Some of the States have enacted legislation which would permit a mutual having a surplus equal to the capital and surplus required of a stock company to eliminate the assessment liability. There is no reason why a mutual company maintaining the same reserve as stock companies should be required by law to be much stronger financially than stock companies. Is there any reason why all companies, stock or mutual, or any other kind, should not be placed upon the same footing? Finally, mutual and stock companies have been writing compensation insurance for eight or nine years. What is the record of certainty of payment of losses? The record fails to show a single instance where a mutual company has not been able to pay every compensation claim in full. There is, it is true, the case of a very small mutual company which was poorly managed and discontinued business after a year or so, but every injured employee received his full compensation from the insurance company.

Unfortunately the same can not be said of stock companies. In Massachusetts alone two large stock companies have failed in the past five years and have been forced to go out of business entirely. Fortunately the many injured employees of one of these companies have been protected by the bond which that company was required by law to furnish the State of Massachusetts as a condition precedent to doing business. In other States, however, without this protection, either the employers insured by this company have been paying the claims or the employees have lost out entirely. In the case of the other company there was not the protection of a bond, and to this day the many claimants have received only a percentage of the benefits provided by law.

Thus far the comparison has been chiefly of mutual with stock companies. There are two other forms of insurance that may be briefly touched upon. Interinsurers are writing compensation insurance in some sections of the country. Interinsurance exchanges are not corporations, but individual employers who insure each other by employing a manager on a commission basis. The surplus of the exchange, ordinarily much smaller than the surplus of mutual companies of equal size, is substantially the only protection offered outside of the premiums themselves. There is a limited liability to assessment, but the exchange itself is not liable, and the claimant must sue each individual member of the exchange for his share of what is due the claimant.

There are two kinds of State funds—competing and monopolistic. Ordinarily they charge rates less than other carriers and return very small or no dividends; besides the State usually assumes no liability whatever, so that the usual State fund does not equal in security the usual mutual company. It must be granted that a monopolistic State fund does give a substantial guaranty of payment of all claims of injured employees. It may be insolvent to-day, but because it has a monopoly it may next year collect enough more in premiums to make up this year's losses. So long as it has a monopoly it is in a position to charge whatever premiums it may find necessary, and the employers must pay. Of course, this is hardly equitable, for employers of to-day may pay less than their just premium, and other

employers in the future may pay excessive premiums to make up such deficiencies. Some fraternal life-insurance societies have found it necessary to do this, but having no monopoly they can not compel to-day's policyholders to pay the premiums that should have been paid by other policyholders in years gone by. There is no guaranty that the States will continue such monopolistic funds, but if they are discontinued it is reasonable to assume that suitable provision will be made, if necessary from the general taxes, to insure all claimants getting their compensation.

Much time has been devoted to this discussion of the certainty of payment, for the first requirement of any form of insurance is that it insures, and I believe that no form of insurance meets this test better than mutual insurance. Accident boards and commissions, representing as they do both employer and employee, are also interested in prompt paying of compensation benefits—payment of the benefits that the law contemplates without undue litigation and all that that implies. There are several ways of payment of compensation benefits. One way is to assume that an accident is not a compensation case until a claim is made, by waiting for the injured to come for the benefits to which he is entitled. Another way is to assume that every accident constitutes a compensation case until it is known that the man is no longer disabled, or that the injury is not covered by the act; to search out the injured party and take the benefits of the act to him. The carrier of insurance can await a medical report on the degree of injury, can mail a compensation agreement to the injured employee, and then forget him until the signed agreement is returned. In this way it may be weeks after the injury before any compensation is paid; and this is a cheap way of doing business. It requires few claim investigators—a small claim organization. It enables the carrier to maintain a very low administration cost, one that looks good in comparison with other carriers; but does it give the kind of service to which the injured employee is entitled? Is it the kind of service accident boards and commissions want?

On the other hand, the carrier upon receipt of notice of injury, if the indications are that the injury is a disabling one, can send a representative to visit the employee at once to see that the proper medical treatment is available, perhaps arrange to transfer him to a hospital or arrange for a visit by a specialist, and the compensation agreement can be explained and signed, and then when the compensation becomes payable it can be paid. This method may be more expensive than the other method, but the Liberty Mutual Insurance Co. believes it is worth the difference. Stock companies have said of mutual companies that service costs money; therefore how can mutuals give claim service and make the large savings they do in administration costs?

The answer is that the saving is not made at the expense of claim service. The tabulated returns of substantially all carriers to the National Council on Workmen's Compensation during 1919 indicate that mutual companies spend on the average 7.05 per cent of their premiums for claim service and the stock companies 6.90 per cent.

State funds are particularly open to attack for their failure to give the kind of claim service that produces promptness of payment. Dr. Downey, than whom there is no more competent or impartial

authority, states in the report of his examination of the Ohio State fund, the largest and best known of State funds, that 40 per cent of the compensable accidents that occurred in May and 25 per cent of those that occurred in April were still pending first adjudication, with no compensation paid on the 23d of June. This bespeaks unreasonable delay in the initial steps of compensation payments. Unfortunately, figures of this kind are not available for all States. A study of the accidents reported to the Liberty Mutual Insurance Co., from Massachusetts only, during the last six months of 1919 showed a total of 2,857 compensable cases. Of these 20 per cent had not been adjusted and payments begun 40 days after the date of injury, and 70 days after the date of injury 6 per cent had not been adjusted and payments begun. These percentages are believed to be fairly comparable with the percentages reported for the Ohio State fund, if we assume that the dates of the accidents referred to in the report on the Ohio State fund are distributed uniformly throughout the months of April and May.

Another matter of interest is that during 1919 the Liberty Mutual Insurance Co. received a total of 49,932 compensation reports of injury to Massachusetts employees, and of this total only 75, or fifteen one hundredths of 1 per cent, went to hearing before the industrial accident board, and only 2 cases were appealed to the courts, and both of these were decided in favor of the insurance company. There is a very real reason why mutual companies are able to give good claim service. These companies are associations of employers. Employers have become very much interested in seeing that their employees are paid promptly the benefits to which they are entitled and there is the fullest cooperation with the company in accomplishing this.

It is this cooperation of employers that has been an important factor in the success of mutual companies in accident-prevention work. The recent report of the committee on industrial betterment, health, and safety, of the National Association of Manufactures states:

> The participating company appears to be able to obtain the cooperation of the employer in accident prevention to a greater extent than does the stock company. By that cooperation the manufacturer is not alone lowering the net cost to himself but to his fellow manufacturers, and he is reducing the time lost by his employees to an extent that can not help but reflect itself in his production cost.

Like the factory fire mutuals of New England, the Liberty Mutual and other mutuals have always believed the prevention of loss of importance second only to the payment for losses that could not be prevented.

In the Ohio State fund "the safety division is nonexistent," Dr. Downey states in his report. That employers are interested in accident prevention and are willing to pay for it is demonstrated by Mr. Jeremiah F. Connor's report on the New York State fund, in which it is stated that certain employers insured in the State fund subscribed to an outside specialized engineering service, for which they paid an amount equal to 20 per cent of the premiums paid to the State fund.

Perhaps it were better in analyzing the extent and character of mutual service to present to you the features of the service rendered its policyholders by the company with which I am most familiar. We have developed a plan of accident control which emphasizes the

extent to which a mutual company can obtain the cooperation of its policyholders in practical accident prevention. It is not necessary to give the details of the plan here to establish the value and efficiency of the service; it is only necessary to point out the results obtained. In Table 1 are shown 10 typical risks in as many different classes of business. The accident rate is given in terms of the number of accidents per 100 employees per year. The percentages show the reductions effected. In nearly every case the accident rate has been reduced below the normal for the industry. In some cases the reduction in accident frequency has been from 50 to 85 per cent. For instance, one of our plants, not included in the table, making wire products, recently went nearly three months without a single lost-time accident to the more than 2,000 employees; and over a period of five months the only lost-time accidents reported were from hernia due to lifting, or other causes which were not controllable by the company. All serious injuries, including even those commonly attributed to carelessness, had been completely eliminated, although a fair average for that plant during the first three months in question would have been about 50 lost-time accidents. These instances, of course, are exceptional. While we do not expect to eliminate accidents entirely, by our plan of accident control we do expect to reach the "irreducible minimum." Our safety engineering division fully expects to bring down the accident frequency in all our plants below the normal average for the industry. Mr. David S. Beyer, vice president and chief engineer of our company, estimates that this plan of accident control has brought about the total reduction of about 10,000 accidents per year in the plants insured by the Liberty Mutual. Now, naturally, accident prevention is highly profitable for the insurance company because it reduces the loss cost.

TABLE 1.—REDUCTION IN ACCIDENT RATE.

Period.	Wooden box manufacturing.		Machine shop.	
	Accident rate per 100 employees per year.	Per cent of reduction, compared with first period.	Accident rate per 100 employees per year.	Per cent of reduction, compared with first period.
First period	33.3		12.7	
Second period	27.2	18.3	8.8	30.7
Third period	10.4	68.8	2.8	78.0
	Paper manufacturing.		Textile manufacturing.	
First period	12.3		7.0	
Second period	5.6	54.5	6.4	8.6
Third period	3.3	73.1	3.2	54.3
	Metal goods manufacturing.		Wire rope manufacturing.	
First period	18.8		48.0	
Second period	9.4	50.0	18.9	60.6
Third period	9.4	50.0	5.6	88.4

TABLE 1.—REDUCTION IN ACCIDENT RATE—Concluded.

Period.	Rolling mill.		Textile manufacturing.	
	Accident rate per 100 employees per year.	Per cent of reduction, compared with first period.	Accident rate per 100 employees per year.	Per cent of reduction, compared with first period.
First period	30.3		8.8	
Second period	18.8	38.0	9.6	[1] 9.1
Third period	5.6	81.5	6.3	28.4
Fourth period	2.1	93.1	5.4	38.6
Fifth period	2.1	93.1	1.3	85.3
	Magneto manufacturing.		Boot and shoe manufacturing.	
First period	12.7		6.7	
Second period	5.0	60.6	4.8	28.4
Third period	4.8	62.2	4.0	40.3
Fourth period	7.1	44.1	3.3	50.8
Fifth period	2.5	80.3	1.1	83.6
Sixth period	2.4	81.2	1.0	85.0

[1] Per cent of increase.

How does the employer benefit? You have got to satisfy him that accident prevention is profitable. Our service is designed, broadly, to (1) create an efficient, stable body of workmen; (2) keep them on the job continuously and permanently; (3) make plant conditions inviting and livable; (4) reduce accident frequency, thereby helping to maintain a normal labor turnover. The employer profits:

(1) Through increased efficiency resulting from the elimination of accident waste by retaining the full-time service of his employees.

(2) Through our employment, welfare, and sanitation service, which assists employers to reduce labor turnover.

(3) Through the improvement in the basic insurance rate for his industry, which results from a reduction in the accident cost.

(4) Through the direct reduction in insurance premium of his plant which he secures under the individual rating plan—(*a*) by the installation of safeguards, for which a credit is given, under the rating schedule; (*b*) by improving the accident experience of his plant, which gives a lower rate under the experience rating plan.

(5) Through the saving being returned to him in the form of dividends if he is insured in a company such as the Liberty Mutual.

Concretely, what has been the saving in premium cost, considered from that angle alone? The Liberty Mutual in 1919 saved its policyholders over half a million dollars in premiums alone through schedule and experience rating reduction. This was in addition to $1,300,000 returned in dividends. This gives some idea of the possibilities of accident prevention work.

As for individual risks, note Table 2. Here are shown five representative plants, taken from different types of industries, characteristic of the policyholders of the Liberty Mutual. In each case is shown the per cent reduction in accident frequency and the per cent reduction in the basic or so-called manual rate—what is actually the average rate for the particular industry. As you will note, the

premium cost has been cut from 10 to 50 per cent of the average rate for the industry. Translating this into actual dollars, take the cost of the wire-goods manufacturer. His premium, at the average rate for the industry, is about $200,000 annually. Merit rating, because of the splendid safety work that has been done, cuts the collected premium to $100,000 annually. We believe these results very much more than justify the cost of our accident-prevention work. We believe these results can be very largely attributed to the cooperation which we, as a mutual company, receive from our members, who own and control their company—cooperation which other kinds of insurance carriers do not receive in like degree.

TABLE 2.—REDUCTIONS IN ACCIDENT FREQUENCY AND REDUCTIONS IN PREMIUM RATES IN FIVE REPRESENTATIVE PLANTS.

Industry.	Per cent of reduction in accident frequency compared with first period.				Per cent of reduction in insurance rate.
	Second period.	Third period.	Fourth period.	Fifth period.	
Textile machinery manufacturing	18.5	45.7	.....	.....	20.7
Machine shop	57.4	67.4	59.0	.....	11.2
Textile manufacturing	[1] 9.1	28.4	38.6	.....	21.2
Dyeing and finishing	[1] 2.2	6.5	32.6	.....	34.6
Rolling mill	38.0	81.5	93.1	93.1	50.8

[1] Per cent of increase.

In spite of accident-prevention work accidents happen. Mutual companies in general and my own company in particular have long appreciated that prompt and efficient medical and surgical service reduces very materially the seriousness of the results of injuries. With the beginning of our company we opened in Boston a surgical department and put in charge of it the best surgeons available. To-day we have surgical departments in important industrial centers where we write business.

During the first seven months of 1920 over 35,000 treatments were given in these surgical departments operated directly by the company. We learned very early in our compensation experience that the very best surgical service is much the cheapest in the end from all standpoints. We have found that through our own surgical departments we can give better and prompter service to injured workers than through outside agencies. In addition to the surgical departments operated directly by the company, it has installed, in over 250 of the larger plants insured by it, first-aid rooms in charge of registered nurses, with doctors on call, or calling regularly, or continuously on the job, depending on the size of the plant. Through this medical and surgical service we are also able to assist disabled employees in returning to profitable employment. This is humanitarian work, but it is also good business. Although the initial cost is high and it may increase the administration costs, it reduces the aggregate cost of accidents and results in a saving to the employer and to the employee, through reduced insurance costs.

We now come to the final criterion—economy of administration. The high cost of private insurance constitutes the sole argument for State insurance, whether competing or monopolistic. It is

well known that stock companies require approximately 40 per cent of the compensation premium to pay the administration cost. With the high commissions paid to the managers of interinsurance exchanges this form of insurance does not have a materially lower administration cost. Mutual companies operate on an entirely different basis than stock companies and have a very much lower overhead cost. In Massachusetts compensation insurance has been written for over eight years and stock and mutual companies are now well established. The average ratio of expenses, including taxes, to earned premiums in 1919, was 38.5 per cent for stock companies and 15.1 per cent for mutual companies.

An analysis of the various items of expense indicates that during 1919 the stock companies spent 7.3 per cent of their premiums for claims service and for safety service; 14.6 per cent for general home office expenses, including State and Federal tax; and 16.6 per cent for acquisition of business. Mutual companies, on the other hand, spent 6.9 per cent for claims service and for safety service; 6.4 per cent for general home office expenses, including State and Federal tax; and 1.8 per cent for acquisition of business. The Liberty Mutual during the year 1919 spent 9.5 per cent for claims and safety service. You will note that mutuals are spending about as much for claims and safety service as stock companies, but much less for home office overhead, and only a fraction as much in the acquisition of business. Here is the essential difference between the mutual companies' plan of doing business and the stock companies' plan. We pay no commissions to agents for soliciting business. We do all our business direct with the employers through our full-time salaried representatives. Our saving is not at the expense of service, but chiefly through the elimination of the broker and agent. And because we are mutual companies all the savings made through the reduction of losses and economy in administration belong to our policyholders, and are distributed to our policyholders in dividends. Thus the Liberty Mutual Insurance Co. and at least one other mutual company have regularly returned 30 per cent dividends, which represents a saving under stock-company costs of from 23 to 30 per cent, this variation being due to the fact that in some States we charge 5 or 10 per cent more than stock-company rates. Mutual insurance does, therefore, offer to the employer the opportunity of buying insurance *at cost* and without the high administration costs of stock insurance. But how does mutual insurance compare with State insurance? Unfortunately, analyzed expense figures for many of the State funds are not available. The Pennsylvania State fund, on all business excluding coal mining, had, according to the report of the Pennsylvania insurance department, an expense ratio of 12.5 per cent in 1919. This is no doubt typical of similar funds. The difference in the cost of such State funds and well-managed mutual companies is accounted for in expenses of taxes and in claim and accident prevention expense.

No doubt the administrative cost of the monopolistic Ohio State fund is low, but this economy may be at the expense of the workmen of the State of Ohio if the fund is unable promptly to pay its claims and is unable actively to engage in safety work. Any saving in administrative cost may be much more than offset by higher insurance costs due to losses that might be reduced by more comprehensive service. I firmly believe that if the actual cost of administration of

State funds is lower than that of well-managed mutuals it is chiefly because mutual companies are spending larger sums of money to obtain prompt payment of claims and the reduction of losses through accident prevention work. Dr. Downey states in his report of the Ohio State fund:

> Economical management, however, is not simply a matter of expense incurred; account must be taken as well of the service performed. Viewed from this broader standpoint, it is past question that the expenses of the Ohio fund have been kept below the level of reasonable efficiency. Bona fide economies in the elimination of selling costs and of competitive duplication account for much the greater part of the saving above referred to; but there have been also some fictitious savings at the sacrifice of legitimate and necessary services. Some of the functions properly pertaining to compensation insurance are neglected altogether; others are inadequately performed.

Mutual carriers of compensation, by their nature and as demonstrated by experience, offer security unexcelled by any other class of carriers. Because mutual companies are in themselves an expression of cooperation among employers, they are able, as is demonstrated by results accomplished, materially to reduce the number of accidents through accident-prevention work, and to minimize the effects of injuries that are suffered through prompt and effective surgical service, and then to get to the injured worker the compensation to which he is entitled with a minimum of delay and litigation.

Finally, mutual insurance is conducted at cost, and through direct dealing between the company and its members the cost is a fraction of stock insurance cost, but the low cost is not accomplished at the expense of service. For those who desire such service, and we believe all employers do, mutual insurance offers real protection at the lowest cost consistent with such service, and it retains that fundamental of progress and efficiency—competition.

The CHAIRMAN. We come, now, to Mr. Fellows' paper—Mr. C. W. Fellows, manager of the California Compensation Insurance Fund.

COMPENSATION COSTS.

BY C. W. FELLOWS, MANAGER, CALIFORNIA COMPENSATION INSURANCE FUND.

In the assignment sent by Dr. Meeker the writer is directed "to prepare a paper on the general subject of compensation costs, giving clearly, completely, and concisely the leading features of the California State compensation insurance fund, also full information as to its operation and results as to service, security, and cost."

That is a rather large order. The general subject has had the attention of students of economics, of logicians, theorists, actuaries, and public investigating bodies, the results being very marked differences in final opinions and conclusions as to *comparative* costs under the various plans for compensation and for insuring compensation risks. That many of these conclusions have been influenced by personal interest is quite apparent. Political expediency also has had its part in some of the deliberations. The most intelligent studies seem to demonstrate beyond the question of a doubt that in pure cost of collecting and disbursing compensation benefits the monopolistic State insurance funds have much the best of the argument as to economy. Whether or not there is a final saving which justifies so radical a departure from older established methods of meeting adversity through insurance, and what dangers in bureaucratic control may lie beyond our immediate horizon, are questions which may not be susceptible of any unalterable conclusion from our comparatively short compensation history in this country. It must be admitted, also, that a mere comparison of cost for collecting through insurance and disbursing through indemnity does not go the full length in establishing comparative actual costs to employers or to communities. No simple comparison of overhead percentages to premiums or to benefits paid can be a true index to relative costs. That the State insurance fund of New York has been able to operate upon an approximate overhead of 7.5 per cent of premiums loses its significance when it is frankly admitted that its service has been sadly handicapped through inadequate appropriations for office and field staff.

There is one point in connection with differences in costs which seems so apparent as to defy illusion, i. e., that there is no justification whatever for the wide variation in costs between nonparticipating corporate insurance companies and mutuals and competitive State funds which provide equally satisfactory, if not superior, claim and inspection service. From even a most cursory examination of the figures, the economic waste involved in the competitive system of acquiring premiums through agents and brokers on commission is glaringly evident, especially in States where insurance against compensation risk is compulsory. A closer examination will show that the system referred to also promotes misclassification of risks, rank discrimination in adjustment of claims, favoritism toward large premium payers, and unreliable statistics upon which to compute rates for the future. That these abuses will be present to some extent under any competitive system goes without saying, but

they are surely multiplied under agency and brokerage practice. No matter how much beyond reproach the intentions of a company and its officers may be, the system means divided control of these elements with agents and brokers and a multiplication of the abuses.

In a paper covering the history of the California State compensation insurance fund entitled "An adventure in State insurance," Hon. A. J. Pillsbury, of the California Industrial Accident Commission, refers in the following words to the repeated claim of insurance company representatives that the companies could conduct the business more cheaply than the State: "The writer is inclined to agree with the proposition that private enterprise *can* do business more cheaply than the State, but that it will not do it as cheaply as the State if it can avoid it." The records show that the companies have not operated as economically as the State funds, and perhaps the natural growth in premium volume through increasing pay rolls has blinded them to the need for retrenchment.

Without claim to the possession of any second sight, the writer long ago predicted that unless corporate insurance companies changed their method of operation materially they could not continue indefinitely to compete in the field of workmen's compensation insurance. The inroads made by the mutuals and competitive State funds upon what these companies have considered their exclusive and rightful "heritage" are an unmistakable sign that this is true.

Conservatively estimated, the State compensation insurance fund of California is to-day carrying 40 per cent of the insured compensation business of the State. Its net premium writings in the year 1919 were approximately 35 per cent of the total for all carriers, and the business of the fund for the current year will probably exceed $4,000,000 in premiums. The California fund is probably carrying a larger percentage of the business of its State than is carried by any other competitive State fund in this country. This may be due in a large measure to certain natural advantages in the law and in political conditions.

The insurance fund of New Zealand furnished the inspiration for a fund of the same general character in California, and provision for it was contained in an enactment by the California Legislature of 1913. Known as the workmen's compensation, insurance, and safety act, this law became effective on January 1, 1914. About October 1, 1913, the writer, then located in Los Angeles and not affiliated with any particular political party, was surprised to receive an invitation to visit San Francisco and confer with the members of the commission looking to a possible appointment to the management of this State insurance fund, then generally looked upon as a new kind of "animal" about to make its entry into the already crowded and somewhat quarrelsome insurance "pasture." Acceptance of the invitation for a conference was finally decided upon, but after considerable deliberation and with many "reservations." At the opening of the interview the commissioners (three in number) almost immediately embarked upon a sort of cross-examination with the intent (quite proper, of course) of bringing out the antecedents, business history, and qualifications of the "applicant." The "reservations" being still most strongly in mind, the "applicant" had the temerity to halt the proceedings long enough to ask a question on his own account. That question was, "What

political influences will be brought to bear, and will the manager be free to select an organization of capable insurance talent without regard to politics?" Assurance was immediately given that politics would be allowed to play no part in the operation of the fund. Keeping the faith in that particular has, in the writer's opinion, done much to insure the success of the fund. Much, of course, must continue to depend upon the attitude of mind of those making up the personnel of the commission and fund management.

The legislature having appropriated $100,000 as a working capital for the fund, and the commission having an additional sum available for preliminary expenses prior to the date the fund became a legal entity, the executive office in San Francisco and a branch in Los Angeles were ready for business on January 1, 1914. Approximately $5,000 of the preliminary expense fund was sufficient, and the original appropriation of $100,000 has never been touched, the fund having now paid interest to the State thereon for several years.

The California workmen's compensation, insurance, and safety act made provision for the industrial accident commission to assume jurisdiction over the affairs of the fund "as fully and completely as the governing body of a private insurance carrier might or could." One of the commission's primary functions was to establish the premium rates. It became apparent long before the law took effect that the only reliable statistics upon which even a reasonable guess might be made were those in possession of the Workmen's Compensation Service Bureau, accumulated from employers' liability experience. A decision was quickly reached that the fund should adopt, at the outset at least, the standard rates published by that bureau, the profits earned, if any, to be returned to insured employers through dividends.

There was no statutory provision at that time for approval of rates as to adequacy, and several carriers, which were not members of the bureau, immediately began a drive for business at material reductions from the bureau rates. Despite this competition, which continued for over two years, and the rather widespread abuses of the rate manual by the company members of the bureau, the fund adhered strictly to the published rates, and in competition with about 30 carriers it wrote approximately 11 per cent of the total business the first year, leading its nearest competitor by $144,000 in premiums. The net premiums of the fund during this first year (1914) were $547,161.24. During that year a complete organization was established, including claim, inspection, and pay-roll auditing departments, and an aggressive campaign for business was engaged in—principally through direct-by-mail solicitation, personal solicitation being at first largely confined to the large centers, i. e., San Francisco and Los Angeles. The total overhead expense of the fund for that year was 12.65 per cent of earned premiums.

The reserve law then in effect provided for setting aside for losses a reserve of 75 per cent of 1914 earned premiums, less losses and loss expenses paid, and as the estimated actual losses (using liberal estimates for outstandings) were only approximately 39 per cent, a considerable portion of the profit was tied up in reserves for the average three and one-half year period required by law. While this gave the fund an excellent bulwark to windward, it also limited the amount which could be immediately returned to policyholders and

placed in surplus. The only amount available was the difference between 100 per cent of the premiums earned plus interest and the reserve of 75 per cent plus expenses other than claims. At the end of the year a flat dividend of 15 per cent of earned premiums was declared to all policyholders except those who had paid only the minimum premium. When the reserves for that year were released four years later a second dividend was paid in cash to these same policyholders, bringing the total return to approximately 34 per cent. This arrangement for initial and final dividends has been continued for subsequent years until, for the year 1919, the initial dividend declared was increased to 17.5 per cent. Since the first year the fund has steadily increased its lead over all competitors—writing in the year 1919, $3,251,974.25 in premiums.

For security to policyholders the fund has had the original appropriation, full legal reserves, a substantial additional surplus at all times, and the added protection of hidden profit contained in the excessive loss reserve. This legal loss reserve is now 70 per cent of earned premiums, less losses and loss expenses paid. Satisfactory reinsurance not being available, the fund restricted its writings to a considerable extent the first year. Marine hazards, explosive manufacturing establishments, and other risks containing an apparent element of catastrophe possibility were refused entirely. Underground mining risks were accepted only for liability limited to $10,000 in any one disaster. With the exception of explosive manufacturing, aviation, and vessels with large crews, these restrictions were removed at the end of the first year.

Contrary to the claim of competitors that the damage-suit provision in their policies provides a needed additional protection to employers, there is not an instance on record where any California employer has been subjected to one penny of loss through having selected the fund as his insurance medium. On December 31, 1919, the fund held a surplus of $1,606,222.84 over and above legal reserves and all liabilities. In the matter of claim service and prompt compensation payments the fund must rest its case upon its showing of rapid growth in patronage, the voluntary expressions of satisfaction contained in its files, and what the recent investigation undertaken by Mr. Carl Hookstadt may have disclosed. If it has fallen short in this particular the management can not attach any blame to statutory or budgetary restrictions, as it has not been handicapped by any limit upon its expenditures for claim adjustment.

The operations of the industrial accident commission proper and those of the State compensation insurance fund are separate and distinct. All expenses of the fund are paid from premiums exactly as in the case of a private insurance carrier. These expenses include salaries, rents, travel, telephones, telegraph, postage, stationery, furniture, supplies, etc., also a tax of 2 per cent upon premiums, equivalent to the State tax upon the premiums of other carriers. The fund is exempt from Federal taxes only, and this item is easily offset by the expense entailed in the daily reports required under the preaudit system of the State board of control, the correspondence, record keeping, and reports required by the State civil service commission, and the detail involved in passing all funds through the State treasurer and controller.

The industrial accident commission carries on a continuous and comprehensive safety campaign throughout the State, employing a force of capable safety inspectors, but in that work it in no wise gives any special attention to risks covered by the fund. The fund maintains its own safety-inspection organization, and the writer confidently believes that its service in that department is equally as good, if not superior, to the best maintained by any competitor. Aside from assistance rendered insured employers through inspection to the end that maximum credits under the schedule-rating system may be obtained for physical safeguards, the inspectors of the fund pay particular attention to unsafe conditions not furnishing any part of the basis for credit and debit rating. During the year 1919, 1,740 separate-risk inspections were made and 5,589 defects were disclosed concerning which recommendations for correction were made. The inspection department has also assisted in the organization of a large number of comprehensive safety campaigns in various industrial plants and has continually kept in touch with these organizations through attendance at the safety committee meeting and with written criticisms and suggestions.

The writer believes it can be fairly said that the State compensation insurance fund of California has no natural advantages over competitors in the matter of expense which are not more than offset by disadvantages. Despite this, its total overhead for the calendar year ending December 31, 1919, amounted to only 10.64 per cent of premiums earned, or less than one-third the average overhead of corporate companies. Its commanding lead in premium volume has been attained without the competitive aid of a favorable rate differential such as enjoyed by other representative funds in open competition. Only during 1918 and a part of 1919, when company members of the National Workmen's Compensation Service Bureau arbitrarily increased their rates by 5 per cent above those legally approved, has the fund had even a temporary competitive rate advantage; nevertheless, each year of its operations has been marked by steady advance in its proportion of the total business.

It is obviously impossible to measure in dollars or percentages the inherent advantages and disadvantages referred to, but, assuming that claim and service costs should be fairly even, the difference between the 35 to 40 per cent overhead of corporate competitors and the 10 to 11 per cent expended by the fund indicates clearly that there is need for some radical movement toward economy in corporate insurance practice.

The Insurance Federation of California made a strenuous but unsuccessful attempt at the last session of the legislature to secure the passage of a bill to separate the fund from the jurisdiction of the industrial accident commission. It was strongly insinuated that the commission had favored the fund in its judicial capacity, and the slightly lower than average loss ratio of the fund was pointed to as an indication that the fund was "short changing" claimants. We know that the difference in loss ratio could be easily accounted for by the fact that the figures used included the premiums of cut-rate companies; that discriminations were generally indulged in by the companies at the instigation of agents and brokers; and that the company figures covering earned premiums were unreliable because of manual and pay-roll auditing abuses.

The abuses mentioned do not constitute all of the unfair competition to which the California fund has been subjected. Agents and brokers representing insurance companies throughout the State have been permitted and often encouraged to circulate most malicious falsehoods concerning the fund, its dividends, financial stability, service, and protection. That some of these statements are born of ignorance rather than dishonest intent does not modify the effect materially when a representative of the fund is not on the ground to disprove them. While it is impossible to measure the addition to the fund's acquisition cost chargeable to these tactics of competitors, it must be appreciable.

The difference in cost to employers between State and corporate insurance in California is a matter of some public concern, but it directly affects only employers themselves, and its extent is being constantly modified through absorption of the business by State funds and other participating carriers. Meantime, it can not be said that all of the economic waste involved is a distinct loss to the State as a whole, because a considerable part of the greater cost of nonparticipating insurance finds its way into local trade channels through expenditures of the commissions earned by agents and brokers, although more productive activities on the part of many of these agents would constitute an economic improvement.

It must be admitted that some agents perform a useful service to employers in arranging proper pay-roll segregations, policy coverage, etc., but quite as often the agent or broker, doing a compensation business as a side line, is totally unfitted intelligently to advise or assist an employer in arranging the insurance contract. This fact is plainly indicated by the record of cases wherein employers have been held liable while the insurance carriers escaped through some technical construction of the policy prepared upon erroneous data furnished by the agent. However, these conditions are rapidly correcting themselves through supervision and competition, and they are of small moment in comparison with the larger compensation problems deserving the attention of the association.

In reporting discussions and tentative conclusions of this association's committee on statistics and compensation insurance cost at a meeting in New York last fall, Dr. E. H. Downey, chairman, gives some very interesting personal observations, in addition to setting forth at some length the difficulties of making any satisfactory comparisons between the costs of various insurance systems. Quoting from Dr. Downey's report: "The most important feature in the compensation act is not its cost, but the relationship of the benefits paid thereunder to the economic loss imposed upon wage-workers and their families by reason of industrial injuries." Referring to the Pennsylvania act of 1920, Dr. Downey says, in part: "The individual wage earner and his family actually bear in this State probably four-fifths of the wage loss incident to industrial injury."

Even should Dr. Downey's estimate for Pennsylvania be a gross exaggeration, which is unlikely indeed, we know that most of our compensation laws fall far too short of fulfilling their professed design, and that some of them at least approach the point in their inadequacy where they do little more, in comparison with the old

system, than furnish protection for employers and insurance carriers against heavy damage liabilities.

Considering that the entire cost of compensation is almost negligible when added to the final product and passed on to the ultimate consumer, what a small matter of public concern indeed is this difference in cost between various forms of insurance when compared with the needs for uniformity, adequacy, and closer supervision in our compensation systems. I might say this supervision should be paid for by the insurance carriers and the self-insurers. I see no reason why self-insurers should be exempted from contributing to such supervision.

The CHAIRMAN. The next item on the program is a paper by T. J. Duffy, chairman of the Ohio Industrial Commission. Mr. Duffy is not here and has not prepared a paper, but this convention would not seem to me to be quite the convention it ought to be without some contribution from Ohio on the program. Mr. Clark, a member of the Ohio board, is here, and with your permission I am going to ask Mr. Clark to take the place on the program assigned to Mr. Duffy for a few minutes.

Mr. J. D. CLARK, commissioner, Ohio Industrial Commission. Mr. Duffy did not know that he had a paper. He said to me that he was on for some discussion. I am sorry he is not here. I should like to have had him meet the reader of the last paper. I refer to the gentleman from New York. I came on just a few moments or a few hours' notice and decision, coming to learn only and to get the viewpoint of the men who are doing the kind of work that I am doing in the best way I can.

When I heard the paper from the gentleman from Washington, the first paper of the morning, I was amply repaid for the four days crossing the continent and the four days returning. When I heard the next paper I heard the familiar note to which we are accustomed in Ohio, and such as I have heard in many of the conventions that I have attended. I saw the opposite poles and the two visions of men, the one, as I feel it, looking toward the rising sun; the other looking toward the setting sun. Mr. Whitney and I never will agree as to workmen's compensation. We certainly will not agree on that crude system of actuarial work in Ohio. I think we do agree, but he will not admit it in his paper. I think he knows Mr. Watson well, and I think if Mr. Watson had been here he would have left a paragraph or two of his paper out when he talked about the crude system we have of actuarial work in Ohio. I liked the note and the tone of the paper that tried to picture us as altruists and not as commercialists.

I have for 25 years been a member of a great fraternal body that meets annually and discusses the problems of insurance—the National Fraternal Congress of America, which deals with 9,000,000 men along another line of insurance. I believe that the people of this country have problems that are not commercial; have problems that are purely social; have problems that are to be worked out in the spirit of altruism only. I dissent from the idea that the unfortunate workmen of America are to be the subject of profit for private insurance companies—at least not longer than is necessary to work out a proper system. They should be dealt with as brethren rather

than as men from whom anyone is to profit. I certainly dissent from the idea that the Ohio commission is conducting a work that sacrifices justice to economy. I believe there is no more liberal commission in the world in its views of the rights of the workingman than you will find sitting in Ohio. I am proud of the record—and ashamed of it too—that Ohio has had to conduct its business on a cost of 2.14, because of the niggardliness of the legislature, referred to by the gentleman from the Labor Bureau. But despite that handicap, we go along. I am certain that in the work of the Ohio commission, that last year handled 167,000 claims, and a little more, will be found a smaller percentage of rejections than in most of the States. I agree with all that has been said, that there ought to result from this convention a constructive policy which will reach the legislative bodies of the States.

It seems to me, as I have listened since yesterday evening, that the great field represented by this convention eventually will be so organized as to be a real force; that we, as commissioners of the several States, will not have to act alone and dependent upon the legislature for the things that ought to be done in all of the States. I agree that we ought not have the operating costs that some of us have. I am not criticizing any commission that has spent more, provided that money has been spent for the benefit of the workman only. In Ohio we are running a commission for the workmen. Our interests are with the workmen, not with any others. In Ohio we feel that society has a certain debt. We believe the State of Ohio should pay the expenses of this commission. We believe that society is relieved of enough of the burden that it would otherwise have to carry to give a liberal appropriation for the work that we are trying to do. We are not running, and so long as the commission is constituted as at present we will never run, that commission on the niggardly plan, or on the economy plan, nor forget that justice to the workman is the highest ideal of every commission. We have had a struggle there. We have had no political interference such as some have suffered from. With the exception of two years of the history of the commission, we have had from the beginning the support of a governor under whose auspices this commission was really founded; six of the eight years of our commission we have had under one of the most loyal friends workmen's compensation ever had, and had all executives stood by their commissions as has the governor of Ohio during these years, there would be no commission complaining of political interference.

DISCUSSION.

Mr. KONOP. Mr. Clark, I would like to ask you a question or two. As I understand, you are spending so much a year.

Mr. CLARK. I have the annual report in my grip in typewritten form merely, but altogether I think our expense this year was the appropriation secured at the last session. The amount was $376,000.

Mr. KONOP. Does that include expenses of accident prevention and safety in your State? Do you conduct that department?

Mr. CLARK. A very efficient department, I will say to the gentleman from New York. I wish Mr. Leigh were here to have heard the discussion.

Mr. KONOP. You are certainly doing a whole lot for little money. We are spending over $200,000 in our State, and I dare say the insurance companies of the State are spending—I don't know how much—but close onto $1,000,000 for accident prevention, and we do very little. We can but scratch the surface. If it was not for the fact that the insurance companies, with their inspectors, cooperate with us I think we would do very little accident prevention with the money we get from the legislature; so I think for the $379,000 you are certainly doing more than I think we are doing anywhere under God's sun.

Mr. CLARK. We are not having the help of the corporations in Ohio. We are playing the game lone handed.

Reference was made here on the service question to the time of payment. That has been the great bane of our department; but the explanation of it has been—and I don't want this to be lost—the explanation of it has been very largely in the contested claims that have come under what is known in our law as section 22 cases, which are carried by the insurance companies. We have hearings on four days in the week, and we have more contests on Wednesday—section 22 day—than any other day of the week, week in and week out, the year round. So when it comes to a question of the insurance companies supporting the commission, we don't find that in Ohio, for some reason.

Another thing, we adopted a new system of blanks a few months ago, which was originated in the commission, and, as shown in the report for three months, we have reduced the time for three thousand and some claims, taken indiscriminately in testing out the blanks, of the first payment to 15 and a fraction days; so we think we have accomplished something in that line.

The CHAIRMAN. We must get on with the program. The next item is a paper by Mr. F. M. Williams, chairman of the Connecticut Board of Compensation Commissioners. Mr. Williams is not here, but his associate, Dr. Donohue, is here, and will take the place assigned to Mr. Williams on the program.

Dr. DONOHUE. It is interesting to know the stand most of us take depends very largely upon where our salary comes from. I suppose the same thing applies all around. I will say in my own case my salary does not come from any particular interest in any special form of insurance, so I suppose the position I take will be very indifferent. I haven't any speech to make. I assume Mr. Williams was to cover a period of 10 to 15 minutes. He wrote a paper which will practically cover that time, and I will read the paper which he has prepared.

SERVICE, SECURITY, AND COST UNDER DIFFERENT SYSTEMS OF COMPENSATION.

BY F. M. WILLIAMS, CHAIRMAN, CONNECTICUT BOARD OF COMPENSATION COMMISSIONERS.

[Read by Dr. James J. Donohue, Connecticut Board of Compensation Commissioners.]

Any discussion of service, security, and cost under different systems of compensation which can at all come within the limits necessary on this occasion must of necessity be a mere outline. From an examination of the program for this meeting, it is assumed that each of the six State officials requested to write on this subject will be expected to give a skeleton of the system in vogue in his State, with the reasons for its adoption and such statements as seem to him to commend that system.

The Connecticut act was passed in 1913 and has been amended in many important respects at each biennial session of the legislature since that date. It originally consisted of parts designated as A, B, and C. Part A was in substance an employers' liability act, Part B, a workmen's compensation act, and Part C dealt in detail with the formation of employers' mutual insurance companies to carry the compensation risks of its members. Various amendments relating to compensation insurance generally have been added and are now known as Part D.

As Connecticut is well known to be an insurance center and many of our manufacturers are more or less familiar with insurance, it was assumed that Part C would be an important feature, but it is notable that not one mutual company has ever been organized under its provisions. This shows emphatically that the employers of Connecticut have not felt the need of any such organizations, but have been entirely satisfied either to take policies in some one of the insurance companies licensed to do business in the State, or to become self-insurers. A great number of the larger employers of labor doing business in the State have become what is known as self-insurers. That is to say, they have satisfied the commissioner having jurisdiction of their ability to pay directly to the injured workman or his dependents the compensation provided, and received a certificate to that effect good for not to exceed one year from date and subject to be revoked at any time if changed conditions make this course seem proper. In issuing these certificates great care is used. The problem is very different from that involving credit to a retail merchant for perhaps 60 or 90 days, or the question of discounting a bank note for a like period, with the probability of one or two renewals. A death claim ordinarily calls for payments extending over 6 years, and any serious injury always involves the possibility of payments extending for 10 years. Under our district system, in a State small in geographic area personal knowledge of different concerns is possible. It has thus far resulted that only two concerns to whom this privilege has been extended have met with trouble.

There were two concerns, with a small number of employees, that went into the hands of a receiver. Neither one became bankrupt, and by commuting all claims against them and presenting them as preferred claims to the receivers they were promptly paid and no injured workman, or his dependents, has thus far been unable to collect what was due him.

The licensing of insurance companies to do a compensation business in the State is in the hands of the insurance commissioner, a department entirely distinct from the compensation commissioners, and ably and conservatively managed. Only one company so licensed to do business has gone on the rocks, and as far as the writer is informed no injured workman or his dependents have met with any loss from this source. At the present time 27 such companies are so licensed; of these 3 are Connecticut companies and 24 are either European companies or companies organized under the laws of other American States. The insurance department and the compensation department have always been in entire harmony, and an additional safeguard is given by a statute providing in substance that when any insurance company licensed to do business in the State is conducting its business improperly, is dilatory in investigating claims and making adjustment, or fails to comply with the procedure laid down for it by the compensation commissioners, they may make application to the insurance commissioner to suspend or revoke the license of the offending company, which he, after notice and hearing, is authorized to do. It has never been necessary to act under this provision; a suggestion that such action might be necessary has been made in a few instances and has always been sufficient to correct any improper conduct.

Another feature of the act producing a marked improvement on the "service" feature of the subject under discussion consists of provisions whereby solvency or amount of security put up by self-insurers are not the only factors to be considered, but the attitude of the company in question is also to be considered, and no matter how strong a company may be financially, if its conduct toward those having just claims against it is dilatory, evasive, or unfair, it may, on proper steps being taken, be deprived of its status as a self-insurer. The great majority of the self-insurers and the insurance carriers who transact the bulk of the business in the State never have to have their attention called to these provisions. They want to be fair and they want to act promptly.

In one of our earlier reports some statistics were given as to the length of time ordinarily elapsing between the date of an injury and the date of the first compensation payment. Those statistics have not been revised in any subsequent report; hence are probably quoted to-day as representing present conditions in the State. They are not, however, applicable to present conditions. The original waiting period under our act was 14 days; this was subsequently reduced to 10 days; now it is 7 days for minor injuries, and where the injury results in incapacity for over four weeks there is no waiting period.

One of the principal essentials of "service" is promptness. Whenever a man receives a severe injury, he is taken at once to a hospital; if he has a family who are suffering for want of ready

funds, either a representative of the employer makes advance payments to care for their necessities, or a member of the family or a friend will call it to the attention of the commissioner having jurisdiction, who will see that prompt action is taken.

This commission is not a statistical bureau. The commissioner of labor statistics and factory inspection is, very properly as we think, a separate department. Such statistics as we gather from time to time are contained in the reports which have been made to the governor. These are made bienially, and the last one covers the years 1917 and 1918. During these two years the self-insurers and insurance carriers paid out to injured workmen or the dependents of those who had died from industrial accidents $3,082,719.05.

What the actual cost to the employers of labor was we have no means of knowing, and it is no part of our duties to try and find out. Our duties are to administer the law and see that the injured man gets the proper treatment to restore him, and gets the sums to which the law entitles him, and, if death results, that his lawful dependents receive that to which they are entitled. The figures for 1919 and 1920 are not available; judging from the number of voluntary agreements submitted and the number of hearings held, it is probable the figures will show a very great increase over any previous term.

The records of the insurance commissioner's office show that in 1918 companies doing business in Connecticut collected as premiums $2,580,377.76; in 1919, $2,992,342.58; paid out in 1918 $1,234,674.63; in 1919, $1,436,582.93. No more significance can be attached to these figures than to recently published figures stating that something over half a million dollars was paid into the North Dakota State fund in the first year of its operation and $103,055 disbursed in the shape of awards and expenses.

Of course it is obvious to anyone having the slightest knowledge of the subject that the difference does not represent the profits of the companies. A Connecticut premium paid in 1918 may, and no doubt will, represent a series of payments spreading over each year up to and including 1928. It is to be hoped that the companies make a profit, for if they do not they can not afford safe insurance for any great length of time. It has quite recently been discovered that a railroad can not do business indefinitely and provide adequate equipment and pay good wages unless it gets an income considerably in excess of its fixed charges. It has also been discovered that when a railroad ceases to function in an adequate manner it is not alone or even principally its stockholders or bond owners who suffer, but the community generally.

It is to be hoped that the policy of unduly restricting and "regulating" insurance companies will not be carried to an extent where it will have to be discovered that the same economic principles apply to an insurance company that apply to a railroad. Free competition among insurance companies will certainly prevent any undue exactions by them in the shape of premiums. It has already been noted in this paper that 27 companies are licensed to do a compensation insurance business in this State, and that Connecticut, great insurance center that it is, is the home of only three of these companies. This is perhaps as cogent proof of the fact that competition exists as can well be offered.

A valuable feature of the service and security afforded by the system in vogue here is the careful and compulsory method for promptly reporting accidents and the preparation of standard forms on which all voluntary agreements are made. No agreement of this character is of any validity until it has been submitted to and approved by the commissioner having jurisdiction. These agreements are gone over and if not clearly correct an investigation follows and the details fully ascertained. When the agreement is approved, a copy is sent to each party, a copy is kept on file in the commissioner's office, and the original is filed with the clerk of the superior court having jurisdiction. The carrying out of the provisions of these agreements is enforceable by court order, or execution. In case of specific injuries a form is provided to be filled out by the attending surgeon. This minimizes the chance of mistake in agreements covering serious injuries. A copy of the agreement form and a copy of the surgeon's form are annexed to this paper as being of possible interest.

Connecticut has never seen any reason to adopt a so-called State insurance fund, either competitive or monopolistic. Where a competitive fund exists, insurance companies are frequently forbidden to charge less than a certain premium, because otherwise the State fund would get only the least desirable risks. This does away with competition to some extent. In the early days of compensation legislation, conservative not to say "reactionary" people who had never studied the matter were apt to bunch this class of legislation in with such fads and fancies as those whom the late, lamented Roosevelt so aptly called the "lunatic fringe" were wont to champion. To the conservative or "reactionary" anything new was undesirable. To another and numerically large class anything old was outworn and needed changing. When the constitutionality of compensation legislation came to be passed on by courts of last resort, it was the practically unanimous holding of the courts that it was a wise, just, and valid exercise of the police power.

These acts were not upheld because the system was new; neither were they rejected because they were new. No court has indicated that these laws were valid because they could be claimed to have a tendency to uphold socialistic theories. The subject of the constitutionality of compensation statutes is no longer of interest; it is settled. State funds have also been held to be legal. The question for each State to decide for itself is whether on the whole such a policy is a wise one. It has not seemed to this State that it was a wise policy for it to pursue.

A fundamental principle of compensation law is to have the industry bear the burden of the industrial loss and pass on this burden to each ultimate consumer of the product of the industry in the shape of a trifle of added cost.

The products of Connecticut industry have a practically world-wide market. The Connecticut consumers of the products of Connecticut industries are but a small fraction of the entire body of such consumers. No reason has yet been discovered why Connecticut taxpayers should be asked, by the establishment of a so-called State insurance fund, to assume this burden. To do so would add an unnecessary element to the already staggeringly high cost of living. No injured workman nor the dependent of any victim of industrial injury would be in any way benefited by such a step.

The administration and enforcement of this important branch of the law of the State is a governmental function. Our commission in the exercise of its duties in making awards and approving or disapproving agreements submitted deals directly with the payment of very large sums of money. It is, of course, necessary and proper for the State to pay the necessary expenses of such administration. So it has been for many years the settled policy of the State to provide for a department to supervise the savings banks and trust companies of the State. It has not occurred to anyone, however, that this authorized or required the taxation of our citizens to provide a fund for maintaining the solvency of these institutions. We believe that government should concern itself solely with governmental functions and leave those matters which can well be handled by individuals or private corporations unhampered by anything, except such necessary governmental regulations as are requisite for securing a square deal to all concerned.

It would be manifestly improper for a member of this commission unduly to praise its own operations, but it does seem proper to state that we have been so fortunate as to secure the favorable comment of both the representatives of the labor organizations of the State and the manufacturers' association of the State on the work of the commission since its inception. This circumstance is mentioned chiefly because the result is largely due to the way in which the board was originally constituted and has since been maintained. The five members of the board are appointed, not elected. Politics bears no more upon its work than upon the work of our judiciary. No change of our commission's membership has been made, except one made necessary by the illness and subsequent death of one of our original number.

We have our individual political preferences and they are not and never have been uniform. They do not enter into our work. While most of our members were formerly somewhat active along political lines, no one of us has made a political speech or taken an active part in party politics since his appointment. Each of the five offices has two young woman secretaries. They may be voters before this paper is read, but they are not now, and their party proclivities, if they have any, are unknown. A State fund, with the necessarily larger number of clerks and assistants, would seem to have a tendency to work into a political field. We have no quarrel with the system that anyone else sees fit to adopt, but are quite sure that for our conditions our system has thus far proved itself adequate for the interests of all concerned.

[See other side.] Form No. 11–B.

WORKMEN'S COMPENSATION COMMISSION OF CONNECTICUT.

AGREEMENT AS TO COMPENSATION.

We, _____ of _____ Street,
Post-office address _____ employer
and _____ insurer
and _____ of _____ Street,
Post-office address _____ employee
having reached an agreement in regard to compensation for an injury arising out of and in the course of employment and sustained by said employee in the

town of _____ on _____, from which incapacity resulted, beginning on _____, the nature of which is as follows:

_____

and for which said employee claims compensation under chapter 284 of the General Statutes, as amended, agree with each other as follows:

1. In case of TOTAL INCAPACITY resulting from said injury (sec. 5351, as amended) the employer is to pay and the employee is to receive the sum of $_____ per week, beginning on _____ and continuing during the *period of such incapacity*, but not for longer than the period provided by law, payments to be made at _____; Provided, if such incapacity extends beyond a period of four weeks, compensation shall begin from the day of the injury.

2. In case of PARTIAL INCAPACITY resulting from said injury (sec. 5352, as amended) the employer is to pay and the employee is to receive each week:

(*a*) Half of the difference between $_____ (the employee's average weekly earnings before the injury) and the amount which the employee is able to earn weekly after the injury, said payments to continue as long as, because of said injury, the earning power continues less than the aforesaid average weekly earnings, but in no case for longer than the period provided by law or to exceed $18 per week; or,

(*b*) The employee's earning power after the injury having been agreed upon as $_____ the employee is to receive, in lieu of the sums provided under subhead (*a*) above, the sum of $_____ weekly for a period of _____.

3. In case of SPECIFIC INJURY (sec. 5352, as amended) involving permanent-total or permanent-partial loss or loss of use of a particular part, or particular parts, of the body, resulting from said injury, the employer is to pay and the employee is to receive, in addition to and at the conclusion of the payments provided in paragraph 1 hereof, the sum of $_____ weekly for _____ weeks, said specific injuries being:

_____ _____

4. The bills for MEDICAL, SURGICAL AND HOSPITAL SERVICES (sec. 5347, as amended) are to be paid or assumed by _____

Surgeons_____ Hospitals_____

_____ _____

5. The AVERAGE WEEKLY EARNINGS AND WEEKLY COMPENSATION (sec. 5353, as amended) hereinbefore agreed to, have been figured as follows:

FORM A. (Used when employee has worked 2 full calendar weeks or more.)

Age of employee _____

$_____ ÷ _____ = $_____ ÷2= $_____

Total wages earned. | Number of weeks worked. | Average weekly wage. | Amount weekly compensation.

FORM B. (Used when employee has worked less than 2 full calendar weeks.)

Age of employee _____

$_____ ÷2= $_____

Customary wage in locality for similar work. | Amount weekly compensation.

Witness our hands and seals at _____ this _____ day of _____ 19____.

In the presence of—

Witness_____ _____ [L. S.]
Name of Employer

Witness_____ _____ [L. S.]
Name of employee

_____ [L. S.]
Name of Insurer

by_____ [L. S.]
(Indicate official position)

This agreement, having been submitted, is approved this _____ day of _____ 19__.

_____
COMPENSATION COMMISSIONER,
_____Congressional District.

[See other side.]

(Make no marks or memoranda in space above.)

EXPLANATION AND INSTRUCTIONS.

(Not a part of the contract.)

It will be noticed that the agreement on the opposite page consists of five main paragraphs covering (1) total incapacity, (2) partial incapacity, (3) specific injuries, (4) medical services, and (5) average weekly earnings and compensation. Please note:

(1) Paragraphs 4 and 5 of the agreement apply to all cases, and paragraph 1 to most cases.

(2) Paragraph 2 will also apply to a large percentage of cases, and the blank space in subhead (*a*) for inserting the employee's average earnings should always be filled in. When this is done, the ordinary case of partial incapacity is thereby automatically covered and no supplementary agreement will be required. In those cases of partial incapacity which for any reason call for a further agreement, subhead (*b*) may be used.

(3) No agreement falling under paragraph No. 3, having to do with specific injuries, will be approved unless accompanied by Form No. 42, which is the surgeon's report to the commissioner.

(4) In figuring the average weekly earnings and weekly compensation under paragraph No. 5, the following rules should be borne in mind (see sec. 5353, General Statutes):

(*a*) A "week" under the workmen's compensation act is seven successive days, not the six days of the ordinary working week.

(*b*) "Form A" is used only where the employee has been working for the employer two full calendar weeks or more, and the sum to be put over the words "Total wages earned" should cover the wages for the 26 weeks before the injury, if the employment has extended over that period of time; if not, it should, of course, cover only such a period of time as the employment has covered.

(*c*) In arriving at the figures to be put over the words "Number of weeks worked," a broken week at the beginning of employment and the week in which the injury occurred are to be left out of account. So, too, is any period of seven consecutive days of lost time to be left out.

(*d*) Pay for overtime or bonuses is to be included in the weekly wages and added to the sum placed in the space over "Total wages earned."

(*e*) In case of an injury to an employee under 18 years of age, the commissioner may add 50 per cent to the average weekly earnings in all cases of total or partial incapacity running for 52 weeks or more, and in all cases of specific injuries provided for in paragraph No. 3 of the agreement.

(5) In accordance with section 5348 of the General Statutes, as amended, "the injured employee shall be entitled to full wages for the entire day of the injury and said day shall not be counted as a day of incapacity." The waiting period begins with the first day of actual incapacity, not necessarily on the day after the injury.

Form 42.

WORKMEN'S COMPENSATION COMMISSION OF CONNECTICUT.

SURGEON'S REPORT TO COMMISSIONER.

In the case of _____, an employee of _____, injured at _____ on _____ and attended or examined by you, please fill out the following report:

1. If there was an *amputation*, or *amputations*, indicate on the diagram below with exactness the lines thereof. Give date, or dates, of same _____

2. Aside from amputations, will there be *permanent-total* loss of use of any part or parts? _____ If so, indicate, if practicable, on diagram.

3. Will there be *permanent-partial* loss of use of any part or parts? If so, to what extent, expressed in percentages? _____

_____

Give approximate date at which improvement practically ceased _____

4. Were there specific injuries to parts of the body *other than those involved in the main injury* above reported? _____ If so, how long, *taken by them-*

selves, would they have caused total incapacity? _____

5. Aside from the *specific injuries* hereinbefore reported upon, is the employee in a less sound condition, or are any of his members in a different condition, than before the injury? _____ If so, give full particulars on reverse side of the sheet.

Filled out by _____, M. D.
Address_____ Date _____
Office hours _____ Telephone number _____

The CHAIRMAN. Mr. Marshall, chairman of the Oregon State Industrial Accident Commission.

SERVICE, SECURITY, AND COST UNDER THE OREGON COMPENSATION LAW.

BY WILLIAM A. MARSHALL, CHAIRMAN, OREGON INDUSTRIAL ACCIDENT COMMISSION.

I swore that I would not come to another one of these conventions and follow the practice of blowing our own horn, as was the common practice in some of our preceding conventions, but I want to digress just to this extent. We have had a lot of theory and a considerable absence of fact, but I hope and believe the employers and the workers of this country are going to have a part in directing injured workmen's compensation and how compensation insurance is to be handled, and if some of you gentlemen ignore that possibility, you may have a sad awakening. There has been much discussion about socialism. There may be quite a difference in the conditions of these various States, but I want to say that in Oregon the employers put over the compensation law, and they excluded the casualty insurance companies from participating in the drafting of the law; it was not the socialism of Europe or the worker, it was the employers of Oregon, who decided they would lend their support to draft an act along certain lines, because they gave thought to economic waste in the system.

We have got to have more facts. The gentleman sitting next to me was disturbed and astounded by some of the revelations made by Mr. Hookstadt. Mr. Hookstadt has struck at the weakness of our whole system. We don't know the actual conditions obtaining—we don't know. And it is our place to find out, and that's true in Oregon as well as in any other State. We ought to know more of the history of these cases after they leave our hands. We ought to know how long it takes after his injury before the workman receives the money, and we ought to know how much of the total amount of the premiums paid into the insurance fund reaches the pocket of the workman, either through financial assistance or compensation benefits of other kinds.

SERVICE.

Broadly speaking, workmen subject to compensation laws are interested in (1) adequate medical aid, particularly as to injuries that may result in permanent disability; (2) the payment of compensation as promptly as is possible, with a minimum of "red tape" or expense; (3) liberal compensation during total disability and for permanent disability; (4) appropriate treatment to restore function, where possible, in cases apparently reaching the state of permanent disability; (5) rehabilitation in serious permanent injuries, either through placement or vocational reeducation, or both, or in a small proportion of cases by payment of compensation in a lump sum; and (6) adequate and certain provision for dependents in event of fatal injury.

Although the provisions of the Oregon law contain limitations as to surgical service and hospital accommodations, requiring authority from the commission for the expenditure of more than $100 in any case for either of these classes of service, in actual practice the injured worker now receives full medical aid. As originally intended, these provisions result in (1) placing before the commission, when requests are made for authority to make additional expenditure, information as to the condition of the injured worker at that time, thus affording opportunity to the commission, through its medical department, to be informed as to what further treatment is proposed and as to what surgeon proposes to do the work; and (2) these provisions also serve to safeguard the fund against exorbitant bills for services.

Physiotherapy has come to be an important factor in Oregon. The commission early recognized the need of furnishing some kind of treatment in many cases where injured workmen, having been discharged by surgeons, continued to experience pain and disability. Starting with individual cases, where the injured workmen were furnished hydrotherapy treatment at the expense of the commission, the members of our board became convinced of the need of supplementing the usual treatment by surgeons. As a result, two physiotherapy departments have been established and are being maintained at the expense of the State fund. A separate staff, consisting of a surgeon as supervisor and with trained aids, is provided by the commission for each department. The experience developed appears amply to justify the judgment of our board in entering this field.

In addition to that, we have also started the work of placing in the larger industrial establishments of the State plant nurses, responsible directly to the commission and whose salaries are paid by the insurance fund. In that connection, we also recently experimented by putting plant nurses in two of the larger construction jobs, for the purpose of securing the experience and determining whether that will be a proper course to follow.

Another part of the service is the matter of rehabilitation. When you secure legislative powers along the line of rehabilitation, it is desirable to have the language as broad as possible in order to be able to meet the different conditions obtaining in each case. Aside from this physical rehabilitation I referred to, we have three ways now in which we can aid the worker who has received a permanent disability. We have the matter of the lump sum where it is desirable. Then, of course, comes the work of reeducation, in which we have rather broad powers and apparently sufficient financial resources to carry on successfully. Third, comes the matter of placement. I might say that has resulted in strengthening, very much strengthening, the act among our citizens, among the workers and employers, because nowhere have we met anything but encouragement as to that new development. Then, of course, second injuries are taken care of by spreading the cost of extra liability caused by a second injury over an extra fund, rather than charging it to the employer.

With the possible exception of medical service, we believe delay in paying compensation to injured workmen causes more complaint than any other feature of the entire compensation system. Our efforts to secure improvement in this regard have included appeals

to employers, workmen, and physicians to send in reports more promptly, and provision for monthly studies of the time required to secure these reports and to pass claims through the department for payment.

The most important development with reference to speeding up work in our claim department came from the realization that it is absolutely essential to have each employee handle but a small number of claims before passing these claims on to the next employee or department having some duty to perform in connection with the claims. By this method we hope ultimately to arrive at our ideal, the forwarding of a check to the injured worker within 24 hours from the time of the receipt of the report that establishes the claim. We also believe the making of a study each month as to the time required in handling claims serves as a splendid check against the commission or its employees becoming lax in this important matter.

Other changes made for the purpose of expediting payment have been the securing of a revolving fund which permits the commission to issue its own checks, and the policy of paying, as soon as necessary reports are in, of one month's compensation in all serious cases and of two weeks' compensation where the reports show the disability will extend beyond that time.

Relative to the schedule of compensation, during the last year, because of the increase in the cost of living, the governor appointed a committee to consider an increase in benefits and then called a special session of the legislature last January, at which time a flat increase of 30 per cent in all benefits was made, retroactive to the first day of the preceding December and continuing until June 30, 1921. The governor's committee, consisting of employers, workmen, and taxpayers, is now considering the schedule to be put into effect on July 1, 1921, and also other amendments to be placed before the legislature next January.

One very interesting result of the increase of 30 per cent referred to was that the increase applied not only to accidents happening after action by the legislature, but also to all fatal, permanent total, permanent partial, and temporary total cases occurring during the preceding five and one-half years and where monthly payments were being made by the commission. The result was that the commission was required to set up from its surplus additional reserves for all fatal and permanent injury cases, some of which had originated as early as the year 1914.

The Oregon act differs from the laws of other States in that workmen are required to pay to the accident fund an amount equal to 1 cent for each workday, and also because the law contains no waiting period. Our experience indicates that in 39 per cent of cases disability does not extend beyond one week, and that for temporary disability 46 per cent more compensation is being paid than would be paid if the law contained an absolute waiting period of one week.

Another feature of compensation acts which has, so far as we are aware, not been considered by way of comparison is the method provided for determining the wage for the purpose of fixing compensation. In Oregon the monthly wage is ascertained by multiplying the daily wage at the time of injury by 26. In some acts the method provided to ascertain the weekly wage, for example, is

to multiply the daily wage by 300 and divide by 52. It appears that the application of this rule results in decreasing by about 4 per cent the amount of compensation to which the worker otherwise would be entitled.

In our State the employer, workman, and physician report accidents independently of each other, and experience suggests the advisability of the workman having opportunity to initiate a claim and having that claim go before the administrative body. Many accidents occur of which the employer or his representative has little or no knowledge, and in some cases antagonism exists between the worker and the person reporting for the employer.

SECURITY.

As insurance in Oregon is confined to the State fund, the security of the injured workmen or their dependents as to payment of compensation lies in the adequacy of reserves and the character of investments. The act requires the setting up of reserves in all fatal and permanent disability cases where awards have been made, and the investment of these moneys is restricted to such purchases as may be made by savings banks under the State law. In fatal and permanent total cases life expectancy is the basis for estimating liability. The fund for these cases is recomputed every other year, the liability being reestimated upon the life expectancy in each case at the time of recomputation.

In addition the commission estimates monthly, upon the basis of experience under the Oregon law, the liability in unsettled cases. To this is added a reserve of 30 per cent for fluctuation in experience, and 50 per cent of the total of these two items must also be included before the commission can credit any surplus to employers paying into the fund.

In 1919 a catastrophe fund of $50,000 was established, and to this is added monthly 1 per cent of the receipts. This fund is also available for the payment of compensation in event of the depletion of other funds. An additional fund was established early this year for vocational rehabilitation, and has increased from the original $100,000 to $134,061.05 on June 30 last. At the end of our last fiscal year, June 30, 1920, the State fund had admitted assets of $4,439,297.80, and of this amount $3,973,729.75 represents the reserves to cover all forms of liability.

COST.

In comparing the different forms of insurance, we believe the true test of cost is found by ascertaining what proportion of the premiums paid for insurance finally goes to the injured workmen or their dependents in the form of compensation benefits. If this test were applied, employers and workmen could themselves easily determine the form of insurance most favorable to their interests.

In Oregon, under an exclusive fund system, where the operations are scattered over a large area and the administrative expense is somewhat greater because of this fact, claimants and their dependents have received in compensation benefits 92 per cent of all moneys expended by the commission for every purpose.

Employers and workmen are coming to realize that under the exclusive State-fund method of handling workmen's compensation insurance (1) there is no element of profit, and therefore no incentive to discourage just claims or to be illiberal in making awards; (2) that the elimination of the economic waste of agents' commissions benefits both employers and workmen; and (3) where representatives of employers and workmen have opportunity, through conference committees, as is now the practice in our State, to determine what changes or improvements are to be made from time to time in the compensation law, it provides a splendid field of mutual interest, not only as to details of the compensation law, but also in the other important field of accident prevention.

SAFETY.

Now, the one remaining important feature, it seems to me, is the matter of safety, accident prevention preferably, and I think that work is properly divided into two parts, the physical safeguarding and engineering and the educational work. We are working now in Oregon on the theory that the best results will be accomplished by first convincing the employer that it is good business to do effective work along the lines of accident prevention. At the present time there is a committee appointed by our governor, consisting of five employers, five workmen, and five general taxpayers, which is working over the various phases of compensation. They have had three monthly meetings and will continue to meet each month until the legislature meets next January. I think there are 14 different things before them now, including what shall be the schedule of compensation after June 30 next year; whether there shall be State aid and in what form; what changes are desirable along the line of rating and along the line of merit grading; what changes shall be made along the lines of safety. That whole development is most encouraging, because men in the industrial field and other phases of life holding widely differing views are meeting monthly at the same table and are working out these problems, so that when they reach a solution, or an agreement rather, they will go before the legislature and have little difficulty in securing what they want.

The CHAIRMAN. We have one more item on the morning program. We are to hear the gentleman who has come the farthest to attend this convention. Mr. Armstrong, of Nova Scotia, has traveled over 5,000 miles from his home city of Halifax. He has attended every convention of this association since he was appointed to the Nova Scotia board, and with his address the morning program will be concluded.

SERVICE, COST, AND SECURITY UNDER DIFFERENT SYSTEMS OF COMPENSATION.

BY F. W. ARMSTRONG, VICE CHAIRMAN, NOVA SCOTIA COMPENSATION BOARD.

Workmen's compensation legislation is an evolution from two old common-law maxims: "It is the duty of everyone so to govern and regulate his own conduct that he shall not occasion injury to others," and "Everyone is responsible for the acts of his agents." These maxims had a fine ringing sound to the uninitiated, but for the workman who was temporarily or permanently disabled and rendered unable to earn a living for himself or family through the negligence of his employers' agents, or by a dangerous condition or arrangement of the machinery or working premises for which the employer was directly responsible, these maxims had no consolation whatever. Everyone was bound by these maxims except the master, and everyone was entitled to relief under them except the disabled workman. He alone was deprived of any redress under the old common-law defenses of "assumption of risk" and "common employment."

A step in advance was taken when the first employers' liability act was passed. When we reach the period of the introduction of the first compensation act in Great Britain, in 1897, we find that the idea was slowly gaining ground that the question of awarding damages for personal injuries caused by some one's misconduct or fault was not the only point to be considered, but that the industry itself should be considered responsible. The latter is now practically accepted by all students as the foundation of the compensation laws of to-day.

Most of our compensation acts provide that a workman must give up his common-law rights as well as his statutory rights when he accepts the benefits of the compensation act. The reason for the taking away of these rights is that the workman becomes entitled to a measure of certain relief from the economic loss and that relief is given him without delay. As each State enacted a compensation law the idea that this was a matter which concerned the welfare of the State seemed to be the underlying principle; and for that reason compensation payments should not be limited to a fixed period or a maximum amount but should be payable for life, and a widow should be entitled to monthly payments as long as she lived, except in case of remarriage; also that the allowance for a permanent disablement should be paid monthly during the lifetime of the workman. This would seem to indicate that the matter was looked upon as being in the best interests of the State; that persons who had suffered an economic loss through industry should not be looked upon as objects of charity, but that it was the duty of the State to make provision in some way for the loss which they had suffered.

When a legislature decided to enact a compensation act the principal question with them and with the employers and workmen was the scale of benefits which should be specified in the act. The question as to whether it was to be an exclusive State fund or State fund and stock companies competing, or stock companies only, was one with which the legislature did not concern itself very much. The employer rather favored stock companies. The idea that there was to be competition seemed to appeal to him. The workman was indifferent, but was rather inclined to want a State fund, believing he would be given fairer treatment than if he had to look to a stock company. The legislatures were guided by these different arguments, and in most cases permitted stock companies and State funds to compete, although in some cases stock companies were allowed all the business; but only in a few cases did they establish exclusive State funds, and it was only in the working out of the system in each particular State that the defects, if any, began to show themselves. In States where there are stock companies only, quite an agitation has been carried on for an exclusive State fund, and while the legislatures have been willing to grant a competitive State fund this has not been accepted. Also in States which have stock companies and State fund competing, efforts have been made, and are being made at this time, for an exclusive State fund. It would seem from this that the great question must be between an exclusive State fund and stock companies systems.

Just here I wish to state briefly and concisely the kind of a system we have in the Province of Nova Scotia:

(1) It is an exclusive State fund, being administered by a commission appointed by the State.

(2) Every employer must report, and is liable, with few exceptions, for such assessments as the board may levy for the purpose of creating a fund for payment of claims. If he does not report, or does not pay his assessments, he becomes personally liable to the board for the amount paid on account of any accident which may happen to one of his workmen.

(3) It is a monopolistic system—private companies are not allowed to do business in competition with the State board.

(4) Workmen are protected in case of accident if they are within the operation of the act, even if the employer has not reported his industry, or if he has reported his industry and has not paid his assessment.

(5) *Rates.*—The board has full power of fixing the rates for assessments on the different classifications.

(6) *Funds.*—The board collects all assessments and has full charge of investments of all funds.

(7) *Claims.*—All claims are decided and payments made by the board.

(8) *Decisions.*—The decisions of the board are final, except that an appeal, by leave of a supreme court judge, may be taken on questions of law. Questions of law are defined in the act and are considerably restricted.

(9) *Medical aid.*—Medical aid is wholly under control of the board, who pay all medical-aid accounts from the general fund collected by assessments.

This, in a few words, gives the principal features of the Nova Scotia act. It is modeled after the Ontario act, which in turn is modeled after the system in operation in the States of Ohio and Washington.

The merits or demerits of the exclusive State fund and stock companies systems must be determined by results, and these results must show that on the whole the service given, the cost of such service, and the security of payments must be better with one than with the other.

Time will allow me to touch on only a few of the comparisons which may be made between the different systems. I shall first take up the question of payment of claims. This is, in my opinion, the most important duty in connection with the administration of compensation acts, and we must bear in mind that one of the chief arguments used as to why these acts should be passed is that if the workman was entitled to compensation the money should be promptly given him, so that he or his family should not suffer. Has this been kept always in sight? We shall first see how claims are adjusted under a stock-company system.

HOW CLAIMS ARE ADJUSTED UNDER STOCK-COMPANY SYSTEM.

When an accident happens to a workman in a State where the employer is insured under a stock company, the employer usually reports the accident to the insurance carrier, and immediately the whole machinery of the company is set in motion. Having its profit-making functions always in sight, it usually devotes its energies to see that the amount paid is as small as possible. These companies are not social-service bureaus or welfare leagues, but are organized solely for the purpose of making money. They have their trained men hardened to the work, whose duty it is to see that the claims are pared down to a minimum. The workman thus finds himself at a great disadvantage, and, unless he goes to a solicitor or attorney, he has no person to take his part. The employer is brought into the case, who may be depended upon to help the insurance company, as he wishes as few cases as possible charged up against his business. The doctor is usually sent for by the employer and paid by the insurance company. In that way he is to be considered almost an employee of the company. With this array against the workman, is it any wonder that under a direct-settlement plan, or in any arrangement where the stock companies have to do with settlement of claims, he is exposed to the risk of unfair treatment and does not obtain the amount to which he is justly entitled? If the hearing is before a board or other tribunal to determine the amount that should be paid, the workman will think that he should have a lawyer or some other person to appear on his behalf as against the trained representative of the stock company. If he employs any person to take his case, it may be on a percentage basis, and, although some boards have limited the amount that should legally be paid, this is not sufficient protection. Why should the workman be placed in the position where he will have to employ any person? In many cases hearings are postponed and other delays are made by the insurance companies with the only object of putting off payments which are justly due. Can anything be done to remedy this state of affairs? I am

afraid that no improvement may be looked for as long as the State allows the stock-company system to continue.

HOW CLAIMS ARE ADJUSTED UNDER STATE FUND SYSTEM.

When an accident happens to a workman in a State where the employer is insured under a State fund, the employer is usually required by the act to report at once to the board. The procedure to be followed in making and completing claims should be as simple as possible. As soon as a report of an accident is received, giving information as to the name of the injured workman and also the name of his employer, forms should at once be sent to both parties with the object of getting them to tell the board, by answering certain questions, how the accident took place. Reports are also received from the doctor who attended the workman and who is paid by the board. These reports being sent direct to the board it will be found much easier to settle cases without delay.

There is no question that if the injured workman can be made to tell his own story about the accident, either by letter or by personal interview, to the board or its officers, who are independent and impartial, the claim can be adjusted much more quickly. In making out reports it is not necessary for employer and workman to confer; in fact, I think it would be better in the preliminary stages that they should not come together. The workman should be made to feel that he is not looking to the employer for his compensation but rather to the board. If the employer has any objection to the claim or to the amount being paid he can take the matter up with the board by letter, or can state the objection in his report. The employer should be promptly notified of any payment made to the workman, so that he can report to the board whether, in his opinion, the injured workman should return to work, or if for any reason he is not entitled to further payments.

A workman having a grievance should take it up with the board direct and not with the employer. Should he go to the employer in regard to the matter it is better for the employer to tell him that the matter is in the hands of the board. It is not necessary that the workman should seek the advice of a solicitor or attorney, or that he should employ any person to look after his interests. With the board trying to get at the facts and prepared to deal fairly with him, there is no reason why any part of the compensation to which he is justly entitled should be used to pay for advice or assistance which he does not require. This manner of settling claims commends itself for the reason that simple methods are used, and everything is done to have the matter adjusted before any controversy arises between the employer and the workman. At this time the feeling between the workman and employer is perhaps not as cordial as it should be, and for this reason any system which takes away any matter which tends to create friction should commend itself to persons interested in workmen's compensation legislation.

Under a State fund system, with workman and employer reporting directly to the board, 95 per cent of the cases are easily disposed of. The remainder may require further information in regard to date of lay-off and return to work; but not likely more than 2 per

cent of all claimants will have to appear before the board or its officers for a formal hearing.

The investigation in the State of New York showed the evils of direct settlement; and although this method has been abolished there direct settlements under stock companies are still carried on in other jurisdictions, and no doubt similar conditions exist as found by the New York investigation. But even with direct settlements done away with, can any sound argument be advanced why a system which will create friction between employer and workman, which delays payments, and which causes a workman to pay out money in order to get what he is justly entitled to should be continued; when the State has said that a workman or his dependents are entitled to certain benefits, why should it allow a company which is operating for profit to come in between the State and the workman?

COST.

Regarding the matter of cost, there is a big economic question involved and it is not clear why a stock company's losses should be about 50 per cent of its income, against anywhere from 92½ per cent to 100 per cent under a State fund, and why the expenses of stock companies are about 40 per cent of their income and State fund expenses do not usually exceed 7½ per cent. I do not see how both these systems can permanently exist side by side. Granting, for the purpose of comparison, that the service given by both systems is equally good and the service to the State can as well be performed by stock companies as by the State fund, and that workmen receive equally fair treatment, there still remains the great difference in cost. If there were no other reason than this, it would be enough to condemn it from an economic point of view to a business man.

SECURITY.

The State is the guardian of the rights of the people as defined by the constitution, and they may add to, amend, or change same as therein provided. It is also the duty of the State to protect the people by safeguarding their interests, and once laws are passed it is its duty to see that the same are enforced. The State has in many cases taken away the rights of the workman and has given him others which are on the whole, we believe, more valuable; but in some cases the security is not good.

The State has failed in its function when it has passed laws providing for the payment of certain sums to a workman or his dependents and has not secured the payment of these amounts. We know that stock companies have failed to make payments to workmen and their dependents. In some cases the employers had to pay. In others the State made good the amount due. In others the loss fell upon the workman or his widow and children. The argument has been advanced by some that it is the duty of the State to guarantee all payments provided under a workmen's compensation act. Assuming that it is the duty of the State to safeguard the interests of the employer and give security of payment to the workman and his dependents, what justification can there be for guaranteeing payments which are due by stock companies which are operating for

profit? Such a company may have paid large dividends for many years, then later find itself unable to meet its obligations. Is it proper or just that the State should then be called upon to make good these payments? No good sound reason can be advanced as to why the State should assume any obligations of these companies.

The employer is entitled to protection, and the workman and his dependents are entitled to security of payments. The State fund system offers the best solution. In Nova Scotia the power practically of a taxing body is vested in the State board, and it taxes just the same as any municipality would, but it taxes the industries, based on the pay roll. Can any better security be given by way of continued payments to women and children than the form which we have there?

The benefits of an exclusive State fund are:

(1) There is security to the workman.

(2) There is security to the employer when he has paid his assessments to the State fund.

(3) There is better feeling between employer and workman, because the State fund assumes the payment of compensation.

(4) The industries of the State benefit by paying only a maximum of about eight cents to get one dollar to the workman, against sixty-six and two-thirds cents by stock companies.

(5) The State benefits, because it will never be called upon to make good payments which should have been made by stock companies.

(6) The employer is better satisfied, because he knows that every dollar which he pays in assessments is to be used to pay claims and legitimate expenses, which will not likely exceed 7½ per cent.

(7) The employee is better satisfied, because he feels that his payments are in the hands of a board which has every reason to deal fairly with him.

Can the stock-company system offer any benefits such as these or that in any way can compare with them? The permanent system, the one that will ultimately prevail, must give all benefits mentioned here. Taking everything into consideration, can we come to any other conclusion but that the exclusive State fund must be the permanent system?

Of course, the point that I have tried to make in this paper is the personal touch that comes between the board and the injured worker. As Mr. Hookstadt has very well said, this is a *workmen's* compensation, and it is for the workman, and the workman must get fair play from the commission every time. The Nova Scotia act has all the earmarks of the worst kind of insurance in the world, monopolistic State fund, compulsory, and all the rest of it. This, of course, makes it the object of a good deal of criticism, but on account of being a long distance away from the seat of the enemy, we don't receive as many knocks as the State board of Ohio. I am very sorry that my friend, Mr. Watson, is not here. I would like to have heard Mr. Watson on the question of the State versus the stock companies. He knows much about the business and how the attacks have been made on the Ohio fund, and not only on the Ohio fund but the cowardly attack which was made by the insurance carriers against Mr. Watson personally in regard to his war record. This stands out as only one of the things that are done by the stock companies to

discredit State insurance. Now eventually, I believe, State insurance will carry. It has got to come. It has got to be monopolistic, and it must be compulsory. If, as Mr. Whitney states, this is going to be evolution, I can't see why the people in this country are prepared to spend $30,000,000 a year more than they otherwise would spend and let this evolution last for 15 or 30 years, when by competition the State funds, where there are competitive ones, will be able to drive out the others.

DISCUSSION.

The CHAIRMAN. I will ask Mr. Monson, of Utah, to open the discussion on the subject of "Service, security, and cost under different systems of compensation."

Mr. W. P. MONSON, commissioner, Utah Industrial Commission. The discussion this morning seems to hinge upon the question of private carriers or the competitive system and the monopolistic State insurance fund. I am a firm believer in the survival of the fittest, and I believe the question will solve itself.

What has seemed peculiar to me throughout the discussion was the statement or statements that a State insurance fund is administered more economically, and yet in the statistics which have been produced that the service under the system is anything but desirable or what it should be. When we talk of service we should not take into account altogether cost, or mere cost, as being the paramount feature, because the line of demarcation is drawn tightly between service and cost, and if we can eliminate the matter of cost by establishing certain fee or certain premium bases for stock and State insurance carriers, and then let the competitive field be along the line of service, there will be a withdrawal from the field of those which can not provide the service that the successful company will provide.

There is one thought that came to me to-day and it has been accentuated by the discussion with respect to the monopolistic State insurance fund. It has always been a question with me, why, if it is such a saving to the men of industry or the capitalists, they should not be the ones who are working for it, urging it. I can not see why labor organizations should be obsessed with the idea of having monopolistic State insurance funds so long as the obligations under the law are administered by a nonpartisan industrial board. If there is but one fund, a State insurance fund, it appears to me that it is apt to become a political bludgeon and be used in order to expand prices or benefits. I may be wrong, but this is an hour for discussion. I can see many advantages in monopolistic State insurance, where the State would collect the premiums and administer the benefits under the law.

Without doubt, State industrial insurance is more economical than that of stock or mutual companies. The question which is worthy to survive will answer itself in time. Between success and failure the line of demarcation, with service on one end and cost on the other, is drawn with precision. When impartial decisions are rendered by industrial accident boards, making the benefits under all forms of contracts uniform, a long stride has been made in solving the industrial insurance service problems. There remains only the cost to be

considered, and if established uniformly among carriers, competition in service only will result, which is more desirable than competition in cost. Scarcely would an employer, through aristocratic pride, pay higher premiums to a stock company than to a State insurance fund, all else being equal. Competitive systems of industrial insurance based on service will prove the law of the survival of the fittest. In the last analysis that system which brings to the unfortunate workman in case of accident, or the unfortunate workman's dependents in case of death, the larger portion of premium assessments is bound to survive. It must survive. Often a premium, with its ornate overhead decorations, is to the benefits paid what the prince is to the pauper—they are not on speaking terms.

In considering a subject so vital to those engaged in industry it is well to view the other side of the issue. What legislative measures should be adopted to protect the employer and the public against the malingerer—the artist at feigning injury—and the one who accentuates his misfortune? True, this is left largely to the decision and discretion of accident boards and industrial commissions. Were penalties provided by law against such, just as penalties are provided against employers and surgeons who fail to respond to the requirements of the statutes, there would be less time and money wasted on such unworthy cases, and a more economic standard attendant upon administering the law would obtain. Silence of legislative acts in this particular is often considered the open door through which industrial leeches enter, who suck the lifeblood of industry.

If there is anything I abhor it is a leech, and there have been cases come before the Industrial Commission of Utah where the board has been united in disallowing the claim. One case, for instance, was that of a man who had been suffering, before he ever left Poland, from a disease resulting in cysts under his tongue, and who had the misfortune of rolling down a bank, of a 45-degree incline, perhaps 50 feet. No bones were broken, but coming on simultaneously with this accident was the acute stage of this cystic condition under his tongue. Do you think we could get that man to go back to work? Why, he thought the United States owed him a living. I believe this is a problem of education of the foreigner rather than of imposition upon the business men of our community, and, of course, I believe the business men must educate them, just as I believe it is the part of the insurance carrier to sympathize with them in their misfortune, but to impose the burden upon industry in every instance we hardly think it is fair. We sometimes hear men say, "Well, I stand for the under dog." If we would stop to analyze that I believe there would not be one here who would hold tenaciously to that principle in all cases. I want to say that as long as the Almighty gives me the breath of life I hope to stand for the under dog as long as the under dog is right, and when he isn't right, I won't stand for him.

I would like to say a word about self-insurance. If there must be self-insurers, specific regulations touching this class should be provided by law, just as certain exactions are laid upon stock and mutual carriers under competitive systems. The method in vogue in Connecticut, requiring a yearly application for the issuance of self-insurance certificate, is to be highly commended. Such measure reduces overdeveloped self-interest to a minimum. Certain evils, now

prevalent, must be abolished. To illustrate: A is killed at the plant of B, a self-insurer. C, who is B's adjuster and wants to render service to justify his ample salary, negotiates a deal wherein the widow of A enters suit against B, who confesses judgment in a sum hardly approximating the commuted weekly benefits allowed her under the compensation act. A's widow feels suddenly enriched and invests in oil stocks or some other wildcat scheme, and before six months have passed she is a ward of the State. Thus the very purpose of the compensation act is subverted. Unless the opportunities for such conduct are removed, there can be no good reason for the self-insuring feature existing in any law. Under strict legal regulation and the yearly certificate plan such abuses or other violations would bring revocation of the self-insuring privilege.

Reform is needed everywhere in speeding up adjustments and making prompt payments of compensation at regular intervals. While failure to elect, on the part of dependents in cases of death, to take compensation under the law often delays first payments, there is still much room for improvement in this regard. Less hesitation to accept statutory benefits would obtain if prompt settlements were offered by insurance carriers and if the workman and his dependents were made acquainted with their rights under the law, a duty incumbent upon the employer. At the next election we will vote for a constitutional amendment providing that all deaths in industry shall be settled for under the industrial commission's supervision, instead of leaving it open for the claimants to take a settlement in court.

The suggested use of the triplicate uniform agreement in all injury cases will, in all probability, reduce the number of cases that now go to a formal hearing. That I take from the supplement to the paper read by our friend from Connecticut. When an agreement between employer and employee is required, the psychological aspect of the situation changes, producing fewer disputes. The educational value of such agreement can not be overlooked. The next factor in the field of service after the securing of reasonable compensation at a time most needed is the matter of rehabilitation and reeducation. Certain injuries, with proper surgical care, can be remedied with a minimum of time lost. In this matter the service of the specialist is the most economical, to secure which and to provide proper and close attention reasonable fees should be provided. Utah had a medical fee schedule which was absurdly low, and on the 1st of July a new fee schedule, which was the result of cooperative labor on the part of the industrial commission and the Salt Lake County Medical Society, was sent out. We took the minimum of their fee schedule in most instances. In some it was even reduced. For instance, for small wounds not requiring anæsthetization in the first treatment a fee of $5 to $15 was provided. A case which came to our notice was that of a man who was struck by an object on the forehead, necessitating three stitches, and the bill came in for $15, which the new schedule specifically provided for, and then there was a $2 treatment, 12 of them, subsequently, making $24 for treatments besides the $15, $39 in all. The medical society voted to join with us to establish better relations for the benefit of the injured workmen, and a committee was appointed by the medical society, consisting of three of the foremost industrial surgeons, who spend an hour or two of their time whenever called upon by the industrial commission, without charge. Just before I

left Salt Lake City we had about 18 bills that exceeded the new schedule, and we called the doctors in, to go over each bill separately, and where possible we would ask the doctor whose bill we were considering to be present. I remember there was one bill came from one of the committee. It was the one I mentioned. When we asked what should be done with the bill, he said, "Cut it to $15," and then we passed it over to him to get his signature on it. He said, "This will never happen again."

A most healthy condition is disclosed in any State where compensation payments are few and the medical fees sufficiently high to secure the best treatment for injuries. I don't mean by that there should be a medical compensation law, but we believe the greatest benefits are coming to a workman when he is placed under the charge of a specialist who is paid a reasonable fee to give the proper treatment.

Reeducation, the placing of one whose injuries wholly incapacitate him to continue in the vocation to which he is accustomed in a new and gainful employment, is a service to humanity. Instead of relegating him to the human scrap heap, make him useful to society by fitting him for the struggle of life through teaching him to do pleasurable as well as profitable work. The United States Government has initiated a lead worthy of being followed by every State. Helping one to help himself is the most charitable act possible. To this end all legislative bodies, accident boards, and industrial commissions are, or should be, vigorously working. Safety engineering should be conducted under the supervision of the State industrial commissions. They see the need for such service more clearly than is possible by members of separate boards. Steps to remedy any unnecessary hazard can be taken immediately as reports of accidents are received.

A new field, I am sure, will be opened in the future for social engineering. It will be the right, aye, the duty, of captains of industry to place individuals of capacity for such work in charge of social welfare organizations to reduce to a minimum local feuds and to establish domestic tranquillity where discord and bitter feelings abound. The president of a very large railway corporation is credited with saying that 85 per cent of the accidents occurring among its employees are traceable to some domestic discord or worry. A little attention diplomatically directed along the lines of social supervision will result in a reduced accident list.

Here is an open field for the operation of women in industries where women's influence has hitherto been unknown. Her possibilities are unlimited. She could instruct in home sanitation, in social behavior, and attend upon and provide necessary care in sickness. The workman would leave for work in the morning knowing all was well at home. Worries would be dispelled and he himself would have 100 per cent of his mental and bodily capacity for service.

Mr. PILLSBURY. We started in the first place under the old Roseberry act. We studied all the insurance systems. Down in New Zealand we found an idea, and we adopted the idea. The idea was this, that an industrial accident commission could maintain a competitive fund, just to set an example to the other insurance carriers, which they would have to follow or else the fund would get the business; and I may say to you that no other than an industrial accident

commission, which is daily engaged with settling controversies, with its finger on the pulse of the public, can know just what a modern insurance carrier needs to be. Now, there is a tendency with the stock company to become a cold-blooded financial institution. But a commission having under its control a competitive fund, and seeing the needs as they come daily before it at its hearings, knows that a warm-blooded financial institution is necessary in order to make compensation a success.

Now, we have made the California fund a warm-blooded financial institution. It is a financial institution. It doesn't give away or throw away any money of the assured. It is careful of that. But it does not stand upon every technicality. It meets the requirements as they come, without very definite regard to strict legality. If a man has been lulled along and the statute of limitations has run without any serious fault on his part, it is not pleaded. There are a good many things we can not compel the other insurance carriers to do directly that we do compel them to do indirectly, because the fund does it, and if they don't do the things the fund does the fund gets the business. It took the other insurance carriers about four months to get the idea, and their salvation, I believe, dates from about that time. They began to do things in a better way.

There have been lots of times when I wished we had a monopoly, when I wished the other fellows were out of the game, because nearly all of our litigation has come from that source, which would thus be avoided.

Now, anyone will tell you that private enterprise can do business cheaper than the State. I believe it, but I also believe it won't do it if it can help it, and it hasn't done it in this State. I think it will have to. I was much impressed by the remark of the gentleman just before that this thing will work out its own salvation. I have told these insurance men time and again—they are bright young salesmen: "You are talking and using your influence to get business for your companies and are getting 60 per cent of it; you can not go up permanently against a proposition of the State compensation insurance fund, which is furnishing identically the same coverage for 33⅓ per cent less." Of course, I think privately these young men are wasting time selling insurance that costs money when they could sell blue sky that does not, but they are selling it. But mark my word, our policies are all participating. At the end of the year we return a certain definite amount that was not needed. Dividends in insurance mean you have paid that much too much for insurance. No man is wise enough to know at the beginning of the year what the premium ought to be. We haven't had enough experience and won't have for years to come, but any bookkeeper can tell at the end of the year what it ought to have been, and then we return as much as need be, as much as we can and be consistent with the law, which requires us to keep reserves. So we have returned some 33⅓ per cent right straight along, going on now for the seventh year. The State gave us $100,000 to begin with. That is still invested in bonds. The only money it ever cost the State was about $5,000 to equip the commission to start with, before the law went into effect. That is the only money it ever cost, and yet while returning over 30 per cent in the first six years we have made 207 per cent per annum on

the $100,000 capital the State gave us. If we had not returned anything we would have made 338 per cent per annum on the $100,000 that the State gave us, and yet during that time a number of insurance companies went out of business because they could not stand the competition. All they have to do is to have a house cleaning, get down to bedrock, cut themselves loose from the agencies, let one another's business alone.

As I stated a little while ago, employers, thickheaded as they are, will not permanently pay these private insurance companies 30 to 33⅓ per cent more than our State compensation insurance fund stands ready to furnish identically the same coverage for. Now, I can not see any reason why we should change our policy. I feel like persisting that we are maintaining a model insurance carrier—model in its treatment of the injured man, model in its treatment of the employer, model as affects its financial integrity—to which the other insurance carriers must accommodate themselves, approximate themselves, or we get the business. The destiny of the stock companies is in their own hands. We are not driving them out of business. I hope the insurance companies have their housecleaning and stay with us. I don't like a monopoly. It is the deadest thing in the world. I don't like a monopoly of any kind. I want the competition of the good old companies, which will make our men sit up and take notice, keep alive, and they need our competition to make them good. Their salvation, I think, depends on our maintaining a State compensation insurance fund to set them a model, which they must follow or we get the business. Now, that is the whole problem.

Mr. T. NORMAN DEAN, Ontario Workmen's Compensation Board. In the paper of Mr. Whitney I noticed a few points I would like to discuss. First, there was an exposition of monopoly versus competition. The second point is "Workmen's compensation itself is based upon a new theory of justice, a revolutionary theory of justice, that substitutes actual social need for an academic theory of individual fault." The third one is, "The tendencies in the monopolistic system are all toward narrow economies which quite fail to see the requirements of the larger and finer justice." Using the third excerpt, it might be said, conversely, "Individually the tendencies in the competitive system are toward wide economies that do see the requirements of the larger and finer justice." Prof. Whitney himself stated this as an argument in favor of competition. The fourth quotation is this: "This is only one of various opportunities for social betterment, which an imaginative treatment of insurance will discover. Another such field, which has been scarcely touched, is rehabilitation. I wish that this association might take the initiative in bringing about a conference between its members and the insurance carriers in order to discover how to amend the compensation laws so as to offer an economic inducement for the development of rehabilitation."

Please notice the next sentence. "If there is an opportunity under the law—that is, if the return of the injured man to work is recognized in a reduction in compensation to be paid—the insurance companies will bring the force of rehabilitation into action." Commercialized rehabilitation! If the compensation is reduced the insurance companies *will* aid in rehabilitation.

I fail to be convinced by the specious reasoning in the second page of this treatise, in view of the Downey-Dawson report on the Ohio State fund and the Connor report in New York, that justice was secured to New York and was not secured to Ohio. I recommend to the gentlemen prejudiced in favor of competitive insurance to read those two reports and see how little they support the contentions set forth this morning. I would like to ask Mr. Hookstadt a hypothetical question. Thursday Mr. Archer, Mr. Kennard, and Mr. Andrus are going to discuss "How to secure full legal compensation to injured workers." Mr. Hookstadt, under exclusive State insurance, says as exemplified by Washington and Oregon, do you think it is necessary to discuss how to secure full legal compensation to the injured workman?

Mr. HOOKSTADT. I should say yes and no. If you mean by that whether it is necessary to check up on the insurance companies or the self-insurers, to see whether or not they are paying their compensation claims, I should say no. But if you mean by that the methods of following up the claims and methods of ascertaining the degree of disability, I should say yes.

Mr. DEAN. I meant the first. One other point. There was developed this morning the difference between the Ohio and Ontario, Nova Scotia, and British Columbia methods. In Ontario compensation insurance means collective liability. In Ohio it means individual liability. Under the Ohio system I understand that if an employer has not a policy the Ohio fund does not pay the compensation to one of his injured workmen. In Ontario the injured workman receives his compensation irrespective of whether or not the workmen's compensation board has collected an assessment from the individual employer, thus affording perfect security to any individual workman under the act; that is, perfect assurance that he will get the compensation to which he is legally entitled. As Mr. Armstrong said, compensation under such a system means that compensation is secured, because behind it rests practically the taxing power of the Province. The compensation to the injured workman is just as secure and as everlasting as the Province is itself.

Last year I volunteered to explore into the statistical end of compensation costs, and I still adhere to the statement then made, in spite of the fact that an effort was made to stifle publication, in which effort the expression was used by an agency of the private companies, and afterward denied, that "the statements made by Mr. Dean were palpably false," and that agency then asked for an investigation by a committee of this association on their own basis—schedule Z figures; that is, to grant their premises and try to reach a different conclusion. I have only this to say: I made those statements after careful study and after carefully expressing every qualification and limitation on my data, as you may see by the report of the last meeting, and I just want to add that if I had time, and if this meeting would so permit, I should like to restate, underline, and emphasize every statement made in the discussion of last year.

Mr. OSCAR M. SULLIVAN, Minnesota Department of Labor and Industries. I wish to address myself solely to Mr. Whitney's proposal of commercialized rehabilitation. To me it is the most amazing proposal that has been made at any meeting of this association. I don't

believe that the association should permit this session of this year's conference to go by without making its attitude on that clear. It seems to me that this is the auspicious moment; when the Federal Government has appropriated money to further rehabilitation, when eight States have taken action and others are to take action, it would be most unfortunate if our legislatures were given the idea that there was a different way of doing this, a commercialized way of doing this, a way that would obviate appropriations on the part of the State. We differ on a good many things, on the forms of insurance and the kinds of benefits and things like that, but I do not believe that there is any difference of opinion on the part of this body as to whether rehabilitation is a function of the State or a function of a private commercial agency, and, therefore, I wish to move that the committee on resolutions be instructed to bring in a resolution covering this point, stating the position of the association substantially along this line, that we feel that vocational rehabilitation is a function of the State and we feel that any changes in compensation laws should not be in the direction of penalizing the workingman for taking rehabilitation.

The CHAIRMAN. Is there a second to the motion?

Mr. VERRILL. I wish to make the point that such a resolution is wholly foreign to the practice of this association. If Mr. Sullivan desires a resolution to be submitted to the committee on resolutions it might be proper, but to make a resolution that the committee on resolutions should be requested to report a resolution is wholly contrary to practice.

Mr. SULLIVAN. I will change my motion so that the committee on resolutions be directed to report, without any instructions as to the nature of the resolution.

Mr. ANDRUS. The business should be transacted at the business meeting. Mr. Sullivan has a perfect right to draw a resolution and submit it to the committee on resolutions. We have no right to transact business except when the chair is present.

The CHAIRMAN. I think the objections are well taken. I believe the business meeting is Thursday.

Mr. MACKEY. The hour is late and I do not propose to speak on this question, but I would like to have Prof. Whitney, if he desires, close the discussion, but I am sure Mr. Sullivan's suggestion for a resolution is due to a misconception of the entire meaning of Prof. Whitney's idea. While I am on my feet, however, I would like to say that in that particular in Pennsylvania we have had a good deal of experience with the subject of insurance carriers. When we came into existence five years ago the law which created our compensation board provided for the creation of a State fund also, provided for the creation of mutual companies under provision of a separate act, and also gave the right to stock companies to do business in our State. One of our first acts was to go over to New York to watch the operation of the New York commission. The feeling was strong in New York, and each side was hiring great spaces in the New York dailies to tell the public what frauds the other was and to call each other bad names. So I drew a statement that the board indorsed, that we as a board had no hand in the insurance game whatsoever;

that we considered ourselves most fortunate that the functions of the Pennsylvania board were purely judicial; and that we passed solely on the legal questions that grew out of compensation; and we proclaimed to the people of Pennsylvania that we had no interest in any particular form of insurance, but that the sole interest of the board was that the employers for the premium paid receive proper protection, and that the employees receive their compensation promptly.

Now, after an experience of five years, I want to say to you that I think if we could bring about that highly idealistic condition, or if that highly idealistic condition could exist, whereby every employer in the State was financially able to carry his own insurance, that we would then be in a position absolutely to eliminate all forms of insurance, because no matter what form insurance takes it is really a menace to the proper functioning of a compensation law. I am led to observe that because under our law the board is empowered to grant exemptions from insurance to those who come before the board and by proper financial showing demonstrate their ability to carry their own risk and their ability to set aside a sufficient reserve to insure compensation for the present and the future. In Pennsylvania we probably have 3,500,000 wage earners. The self-insurers have on their pay rolls fully 70 per cent of those 3,500,000 wage earners. In that group of employers covering that 70 per cent of our entire employees, the most idealistic conditions exist, and it is right, because when there is the interruption of a representative of the insurance carrier coming between the employer and the employee, that introduces a commercial element and introduces a stranger and is an interference. We hope by compensation first to bring about the particular individual interest to promote safety, and next, to promote the proper feeling and cordiality between the employer and employee. During the last five years 300,000 workmen have sat down with their employers and have executed, on an average of 19 days after the injury, 300,000 compensation agreements—executed without delay, because included in that 19 days was the 14 days' waiting period.

Under the old common-law system one of the greatest evils was the economic waste, that waste in the morale of the employee who was forced to sue his employer and go to court, the marching into court of the two hostile forces, and the delay in court. Out of the same establishment came two hostile forces. The same morale could never again be restored.

Now what is the result? Three hundred thousand people in Pennsylvania, in peace and quiet, without delay and without cost and without quibble, have had their compensation secured for them. That condition has been brought about by the contact between employer and employee, which alone can come about by negotiations between them.

Shortly after 1916 we went down to Washington and had a conference on social insurance. We came back thoroughly impressed with the idea that we were right, that we were going to give every insurance company in our State that showed ability to carry loss a chance. Mr. Whitney is entirely right when he says this thing should be settled by social evolution rather than political revolution. There will be a survival of the fittest. I heard a gentleman from Oregon

here yesterday say that from a legislature made up of farmers there could be secured $100,000 for rehabilitation. I want to say that if I was going before a legislature to pass a law that only a State fund could do business in the State, I would want to go before a legislature of farmers, because these people who are doing these other things do not realize the practical condition we must face. We have to have a legislature of farmers in Pennsylvania before we can do away with stock-company insurance; otherwise we will have a large representation of lawyers, and among the lawyers we will have representatives of insurance companies. Therefore, it can not be by a political revolution. It must be done by social evolution. It must be a survival of the fittest; and if the old-line companies can not give the service and if the State funds will give the service, there will be a gradual public sentiment built up, and public sentiment will solve it through the legislative office. Therefore, I do not think there is a very great advantage for us who have to maintain a judicious as well as judicial poise, who have to hold the scales of justice, who have to pass upon the law, in allowing ourselves to become partisans at this stage of the development of our law on any particular form of insurance.

Prof. WHITNEY. I want to say in regard to the remarks by the gentleman from Ohio, all I said about Ohio was taken from the report of Mr. Downey and Mr. Dawson, and if you do not mind I would like to read one or two things:

> With respect to promptness of claim payment * * * the average interval between accident occurrence and the first compensation payment is too long and the instances of serious delays are far too numerous. * * *
>
> That 40 per cent of the compensable accidents that occurred in May and 25 per cent of those that occurred in April should still be pending first adjudication, and with no compensation paid on the 23d of June bespeaks unreasonable delay in the initial steps of compensation payment.
>
> This unfortunate situation is due in large part to totally inadequate appropriation. * * * The salaries are miserably insufficient to attract and retain capable men for the responsible positions. The number of field agents is wholly inadequate to make prompt investigations of disputable claims. The whole expenses of claim adjustment, for the fund and for self-insurers, amount to less than 1 per cent of pure premiums. To anyone conversant with the subject it needs no argument to show that compensation claims can not be promptly or efficiently handled for any such cost.

Then with regard to the experience rating plan:

> This highly ingenious plan was devised in its entirety by the present actuary of the fund. Its conspicuous merits are simplicity and universality of application and the avoidance of extreme deviations from classification rate. The outstanding defects are the excessive penalty for a single death or permanent disability in the experience of a small employer, and the inability of a large employer to obtain a rate to which his individual experience, as contradistinguished from that of his classification, may fairly entitle him. Changes in the experience rating plan, effective July 1, 1919, will meet the foregoing criticisms in part. * * *
>
> Economical management, however, is not simply a matter of expense incurred; account must be taken as well of the service performed. Viewed from this broader standpoint, it is past question that the expenses of the Ohio fund have been kept below the level of reasonable efficiency. If the claims division is inadequately supported, the safety division is nonexistent. The industrial commission, of course, enforces safety laws in factories and mines; but law enforcement is quite distinct from the safety work customarily carried on by compensation insurance. The merit rating plan already described, and its accident prevention laboratory constitute the immediate safety actitivies of the Ohio fund. The fund does not directly employ inspectors or safety engi-

neers, and unfortunately it does not have an adequate working relationship with the inspection departments of the industrial commission. Risks are not rated upon the basis of physical hazards.

I just wanted to read that to show I was only expressing what was in this report of Mr. Downey and Mr. Dawson. Now, in regard to the rehabilitation matter. This is a great surprise, that any criticism should be found with that. It hadn't occurred to me. I supposed we were all at the point to have the whole thing commercialized. That doesn't mean it is only commercial, but it means you have got commercial and economic interests back of the thing to help you. My idea of the world is not something that is altruistic, not something commercial, but a marvelous union of all of it. The history of the progress of the safety idea shows that it has been from the commercial idea, if I am not mistaken. I think this, in general, is the way it was evolved. The first interest in it was very largely on the commercial side. I think the insurance companies are entitled to a great deal of credit. It was their reduction of rates that first interested the employer in safety. Then the employer pretty soon went on to other things, scientific, etc. I have been attending the meetings of the Safety Council for the last seven years, and I have seen the evolution of it, and that is the way the thing has gone, pretty largely.

Now, that is the way we want to commercialize rehabilitation. I had supposed that the ideal compensation law was one which based compensation on the actual wages the man received. Now, then, all I am proposing in regard to rehabilitation is that if a man is rehabilitated, physically and occupationally, that will presumably increase his earning power. Well, then, his wages should depend upon his earning power, and when his earning power is increased I should suppose we would all agree that he should not go on with the old compensation and get his wages in addition. I can't quite conceive how it could be consistent with justice to have that condition of affairs. His compensation should be based, to a very considerable extent at least, upon his new earning power. Now, then, don't you see, if it is based on his new earning power, there is going to be a financial incentive to get him back to work and the insurance company is going to get behind this thing. I don't feel any horror toward the word "commercialize." Perhaps there is a difference in my philosophy of life. In this world you can't have the commercial interests in one corner, the altruistic in another corner, and religion in another corner. That isn't my idea. My idea is to have all work together in the same world. I said in one place in my paper that I thought one of the most important things in practical social philosophy was to see that you got everything working. That is the objection I have to a State monopoly of insurance. I think it has only about one-fourth of the insurance working. There is lots that can be put to work besides disabled persons. There is the prevention work. When an insurance company takes over the risk it ought to take over practically all the interests of the assured. It ought to take over the interest of prevention. Now, then, I want the insurance companies to take over the interest of rehabilitation, but you can't expect them to do it on purely altruistic grounds. Surely nobody expects that. That doesn't prevent the State from getting into it, but get the insurance companies into it also.

Mr. CLARK. Speaking of Ohio, the report referred to and read from is a report of two of the most eminent actuaries that the Ohio commission could find. The report was made at the request of the Ohio commission in anticipation of the meeting of a legislature that had been elected largely as an antagonistic legislature, the purpose of the commission being to call to mind from some other source than its own interests what defects there were. I would like the people here also to know that if the summary of this report had been read it would have been a very different criticism than that which was read, and I should like my friend to read the summary of that report. Mr. Downey came and went through the commission from stem to stern. Mr. Dawson, than whom there is no more reputable actuarial authority, I presume, in the United States, reviewed and wrote an opinion of his report, and the summary of that report, to my mind, is one of the finest tributes to the Ohio commission. We got some additional appropriation. We got our safety men back into the work. We never had any help in Ohio from these other interests that it is stated ought to be taking up this work. They have had that field from the beginning of this commission until the law passed some two or three years ago. There was no effort made along the lines now suggested should be followed. I want to say that just what has been read here from this report was distributed in circular form, in bales in Ohio; and after this Downey report was made another actuary was brought from New York by adverse interests and prowled around the commission's offices for some weeks and got nowhere. I think it is only fair that the authority responsible for this report be known as the Industrial Commission of Ohio.

From the experience of three years of hard work in Ohio and from the experience of meeting, as I have, with these men—and there are some mighty fine fellows among them, outside of our differences of opinion on this one point—I am yet to be convinced that there is any warmth to be had, any help to be had, by a continued cooperation with those who haven't done the things they said ought to be done, who haven't cooperated in the way of rehabilitation, and I have had some experience, like my friend from Pennsylvania, as a trial lawyer for 25 years, and I started with the attitude of justice, "with malice toward none and charity toward all." And I have watched the employers and employees of Ohio cooperate year after year in our own meetings, and I have never seen them in opposition on any question, because I want you to know that the employers and employees of my State work together on our plan of insurance. I want you to know that the only opposition that has ever come to the Ohio system since I have been connected with the commission has come through the stock companies, which formerly wrote insurance in our State. There wasn't an amendment to our law at the last session that wasn't thrashed out completely in conferences that lasted all day and into the night between the manufacturers' associations, associations of the employers and representatives of the working class. There isn't a more harmonious class of men working together in any State for any movement than those men. I want you to know that if my friend had read the last two or three pages of the report I wouldn't have made this speech.

The CHAIRMAN. Mr. Hookstadt will now close the discussion.

Mr. HOOKSTADT. I merely wish to state that rightly or wrongly I am one of those who believe that the desirability of any institution, of any line of conduct, of any system, is governed by results, and by results only. There has been a lot of theorizing here to-day, a lot of theoretical argument. Now, if it can be shown that one system furnishes better service, is cheaper, and provides greater financial security than another system, as shown by the facts, is not that system desirable? Is not that the system that is best? There has been much discussion about the desirability of competition, as opposed to monopoly. There has also been a great deal of talk about the "survival of the fittest." However, monopoly in itself is neither good nor bad. Competition in itself is neither good nor bad. It depends on the results—on the facts in the case—and we should be governed by the results if we are reasoning human beings.

The CHAIRMAN. Mr. French has an announcement to make.

Mr. FRENCH. The afternoon session will be at 2 o'clock. I want to make two or three announcements, please. In the first place, every delegate has not registered. I wish you would remember that. I want to have the list accurate.

Senator Hiram Johnson had to leave the city and sent his regrets for Thursday night.

By vote it has been decided we shall hold an informal dinner on Thursday evening. The place and other necessary details will be explained later. The trip to Tamalpais will take place on Friday. Quite a number have signed up to take this very pleasant journey to Tamalpais. Any delegate or visitor, or anyone here interested, is cordially invited to attend either or both of these functions.

To-morrow morning your program is a visit to the hospitals. Now, that is a little misleading. We have not planned a visit to hospitals. We have arranged at 9 o'clock sharp to have an array of automobiles extending for one or two blocks up this street, on Post Street, and we are going to take all who come on a sight-seeing tour around the city, through Golden Gate Park, past the Cliff House, through the best residence sections, over the top of Twin Peaks, and to numerous other places well worth visiting. Incidentally we will call at the San Francisco Hospital on the way back, and you will see an excellent institution there. Dr. Emmet Rixford, perhaps the leading surgeon on the Pacific coast, will speak a few words of interest as to our work. We want everybody to come.

[Meeting adjourned.]

TUESDAY, SEPTEMBER 21—AFTERNOON SESSION.

CHAIRMAN, G. D. SMITH, CHAIRMAN, NEVADA INDUSTRIAL COMMISSION.

ADMINISTRATIVE—MEDICAL PROBLEMS.

Systems of Medical Service.

Mr. FRENCH. The chairman for this afternoon session is the chairman of the Nevada commission, Mr. Smith. Mr. Smith has had a wide experience in handling the work in Nevada, and of course is intensely interested in the question of medical service.

The CHAIRMAN. We may have differing views as to the systems of securing compensation, but I think you will all agree with me that satisfactory service under workmen's compensation law could not be had without the invaluable aid of the medical profession in determining the character of disability, and it gives me pleasure therefore to preside at this session where medical systems under compensation laws are to be discussed. Two of the speakers who are down for this afternoon are unable to attend. Dr. Mowell has sent his paper, in accordance with the practice heretofore followed at this session. If the secretary will include it in the proceedings of this session it will not be read.

SYSTEMS OF MEDICAL SERVICE.

BY JOHN WILSON MOWELL, M. D., CHAIRMAN, WASHINGTON MEDICAL AID BOARD.

When the workmen's compensation act was first framed and submitted to the legislature of 1911 it had as a part of the act written into it at that time a medical aid provision for the payment of surgical and hospital bills. However, the legislature eliminated this section of the act and passed a compulsory compensation act without any provision for medical treatment to the injured.

During the period between 1911 and 1917 injured men were taken care of at the direct expense of the injured workman, either by monthly contributions in the form of contract or by paying his own bill when injured. The injured men who were taken care of by monthly contributions by contract were taken care of in a fairly satisfactory manner, but when no such provision was made it was often difficult to procure medical and hospital attention, and sometimes impossible, because of the fact that the man had no money to pay the bill himself and the compensation was inadequate to care for his hospital and surgical bills. As time went on it became more and more evident that some form of medical aid was absolutely necessary to provide efficient treatment for the injured workman.

The legislature of 1917 passed our present medical aid act as an amendment to the workmen's compensation act, but placed its administration under a separate board and made it the duty of this board to see that injured employees receive proper and efficient treatment for their injuries, the expense of the same to be divided equally between the employer and employee. In order to carry this into effect they provided for two systems. One known as the "contract system," whereby an employer may, with the consent of 51 per cent of his employees, enter into a contract with a physician or hospital for the care of his injured workmen. This contract must be approved by the medical aid board, and the contractor shall receive 90 per cent of the money contributed from such employer and his employees for medical aid as payment for this service. After having made the contract the employees of such employer must accept the services of the contractor. In case they do not, they are required to stand the expense themselves.

Second, it provided for what is known as the "State's plan." That is, all employers who see fit not to contract pay all of the medical aid money into the medical aid fund, out of which all surgical, hospital, and other bills for injured workmen are paid. This system gives the man a free choice of physician and hospital in the first instance, provided it is within a reasonable distance of the place of injury.

The medical aid act provides that a physician and surgeon be the chairman of the board, and the board has delegated to him the power of administering the orders, rules, and regulations that the board

has adopted, with the provision that where the policy of this board is involved the matter be considered by the board prior to action on same. This provision of the act makes it possible for the board, should it desire, to take up the treatment of each individual case and provide treatment consistent with its requirements, thereby achieving results that would be impossible if the board were restricted to the necessary limitations of a legislative act that did not provide for administrative rules to be promulgated by the board. This is one of the outstanding features of the law, because the board may readjust its rules from time to time, if it becomes necessary for the proper administration of the act according to its intent. This makes it possible for the board to consider efficiency of treatment only. It also gave the board the authority to make a fee bill for the payment of surgical and hospital fees. By these rules the board has restricted the free choice of physician to the first instance only.

If the board finds that in its opinion the transfer of any bad case will hasten its recovery or lessen the permanent partial disability, the board reserves the right to transfer such injured workman to another place and under the care of some surgeon of its own choice. This allows the board to take up reconstructive work, or postoperative work of any kind, which in its opinion is the greatest feature in the medical aid act at present. We have been able to take cases that were entirely unable to work because of some condition which surgery would remedy, and by having this work done the claimants were able to return to some gainful occupation and often with practically no permanent partial disability at all. So in the State of Washington when we come to compare the conditions under which the workmen received medical and surgical attention prior to 1917 with the present method of handling these cases under the medical aid act we can hardly compare them at all.

In the first instance a part of them received very inadequate attention. At present they all receive the best care that they can receive in the particular locality in which they happen to be working, and if that locality is not up to a high standard of treatment the bad cases are transferred to where they will receive such care and attention as their cases require.

The CHAIRMAN. It also appears that Dr. Hall, of British Columbia, was unable to attend the session. So the first speaker this afternoon will be Dr. Donoghue, of Massachusetts.

SYSTEM OF MEDICAL SERVICE UNDER THE MASSACHUSETTS WORKMEN'S COMPENSATION ACT.

BY FRANCIS D. DONOGHUE, M. D., MEDICAL ADVISER, MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

From a most modest beginning the medical work of the Massachusetts Industrial Accident Board has gradually developed until its importance is now second to no other provision of the law, not excepting even the compensation provisions. From a little section dealing with the furnishing of medical and hospital services during the first two weeks after the injury only, the law has been amended until it now takes in every case of serious and unusual injury, provides for reasonable medical and hospital treatment and medicines for the full period of hospital care under the wise and broad interpretation given the "unusual case" provision of the law by the board, and lately has been amended so that the board may, whenever in its opinion such appurtenances are beneficial, order the insurer to furnish and pay for artificial appliances and thus get the employee back into industry within the shortest possible period of time.

In addition the medical sections of the law have been amended to provide that the written report of the impartial physician shall be admitted in evidence as a part of the record upon which a board member may base his decision. This, in brief, is an outline of the provisions of law in Massachusetts which have exalted from a humble beginning the medical features of our law to a place among the highest and most important sections of the statute.

The following are the sections of the law governing the medical features:

Medical and hospital services (*Part II, section 5*).—During the first two weeks after the injury and, if the employee is not immediately incapacitated thereby from earning full wages, then from the time of such incapacity, and in unusual cases, in the discretion of the board, for a longer period, the association shall furnish adequate and reasonable medical and hospital services and medicines when they are needed.

Right of employee to select physician other than one provided by association.—The employee shall have the right to select a physician other than the one provided by the association, and in case he shall be treated by a physician of his own selection, or whether in case of emergency or for other justifiable cause a physician other than the one provided by the association is called in to treat the injured employee, the reasonable cost of his services shall be paid by the association, subject to the approval of the industrial accident board. Such approval shall be granted only if the board finds that the employee was so treated by such physician, or that there was such emergency or justifiable cause and in all cases that the services were adequate and reasonable and the charges reasonable.

Board may order insurer to provide and pay for artificial appurtenances.—In any case where the board is of opinion that the fitting of the employee with an artificial eye or limb or other mechanical appliance will promote his restoration to industry it may order that he be provided with such artificial eye, limb, or appliance at the expense of the insurer.

Examination of employee by physician for board (*Part III, section 8*).—The industrial accident board or any member thereof may appoint a duly qualified

impartial physician to examine the injured employee and to report. The fee for this service shall be five dollars and traveling expenses, but the board may allow additional reasonable amounts in extraordinary cases, and the association shall reimburse the board for the amount so paid. The report of the physician shall be admissible as evidence in any proceeding before the industrial accident board or a committee of arbitration, provided that the employee and insurer have seasonably been furnished with copies thereof.

Fees subject to approval of board (Part III, section 13).—Fees of attorneys and physicians and charges of hospitals for services under this act shall be subject to the approval of the industrial accident board. If the association and any physician or hospital, or the employee and any attorney, fail to reach an agreement as to the amount to be paid for such services, either party may notify the board, which may thereupon assign the case for hearing by a member of the board in accordance with the provisions of this act. The member shall report the facts to the industrial accident board for decision, and the decision shall be enforceable as provided by Part III of section eleven.

Hospital records as evidence (Part III, section 19).—Copies of hospital records kept in accordance with the provisions of chapter three hundred and thirty of the acts of nineteen hundred and five, as amended by chapter two hundred and sixty-nine of the acts of nineteen hundred and eight, and of chapter four hundred and forty-two of the acts of nineteen hundred and twelve, certified by the persons in custody thereof to be true and complete, shall be admissible in evidence in proceedings before the industrial accident board, or any member thereof. The board, or any member, in its or his discretion, before admitting any such copy in evidence, may require the party offering the same to produce the original record.

The duties of the medical adviser embrace the systematization of all the vast amount of medical information required under the workmen's compensation act; advice with reference to all medical problems; supervision over the work of impartial examining physicians; the direction of expert help and testimony in certain exceptional cases; the outlining of the essential medical facts required to decide whether disputed nonfatal and fatal cases are covered by law; and the preparation of such cases impartially for hearing in order that the provisions of the act may be made effective speedily and with the least possible cost and annoyance to the parties in interest.

Appointment of impartial physicians.—The work of advising the board on the appointment of impartial physicians is a duty of the medical adviser, for the purpose of having a uniform system based on expert knowledge of the requirements of the different cases that arise, and permitting of the selection and training of physicians in a manner that will insure impartial examinations and reports according to the technical requirements of the compensation law. As far as possible, also, examiners are assigned to cases according to geographical proximity to the residences of injured employees. In some instances cases are of such nature that it becomes necessary for them to report for examination in Boston or in some other large center where the facilities for examination are better than in the immediate locality where the employee resides. When this action is necessary or advisable the expenses of the employee incident to the trip are paid by the insurance company. In all cases the aim in selecting physicians is to provide a man whose training and experience fit him to examine and report expertly according to the special features involved in the case, not only as to past disability but as to future treatment.

Reports of examinations by impartial physicians.—In connection with the assignment of impartial physicians according to the nature of the case and location, some interest may be attached to a brief

statement of the process by which the impartial reports are handled at the office. Upon receipt of impartial reports these are in all cases first read by the medical adviser to make certain that the report properly covers the necessary points involved in the case. Copies are then made and sent to the employee, insurance company, and, in some instances, to other persons who have a direct interest in the case. The impartial examination is not related in any way to the examinations which the insurance company is permitted by law to have performed in its own behalf, by a physician appointed outside the jurisdiction of the board. The impartial examination is to assist the board and the interested parties in obtaining reliable medical opinions which under the law have the weight of being entirely separated from any direct interest in behalf either of the employee or the insurance company.

Fatal cases.—Every insured fatal case that comes to the attention of the board through an accident report, or otherwise, is referred to the medical department in order that all necessary steps may be taken to procure proper and adequate records, such as hospital reports, statements of physicians, and copies of autopsy reports when these have been made. Informal opinions are stated in these cases, to indicate the probable connection between injury and death.

Specified injuries.—Opinions are given, also, on the records in cases in which there is a possible question of additional compensation on account of amputations, reduction in vision to one-tenth of normal, or other specified injuries such as may render permanently incapable of use members of the body, including arms, legs, fingers, toes, and phalanges.

Disputed medical bills.—Another important function of this department here briefly described is the action taken upon disputed medical bills. In case of dispute, although the physician has the right to have a formal hearing, the practice in general is to endeavor to adjust the matter if possible on the basis of an informal opinion by the board based on the records in the case. In such cases the attending physician or the hospital is requested to submit a copy of the bill in dispute, and to answer a form set of questions describing the nature of the case and the treatment given. With this information and the other records in the case, an informal opinion is given as to the reasonableness of the bill on an industrial basis. Many cases are settled in this fair and impartial manner, although neither side is thereby prejudiced from having a formal hearing and decision based on the evidence submitted.

Unusual cases.—Another important and at times perplexing question with relation to medical attention is, What constitutes an unusual case requiring the payment of medical and hospital bills beyond the statutory period of two weeks? The reasoning of the industrial accident board for the consideration and determination of this question in each individual case according to the evidence is epitomized in the following extract from the case of John Brady, Brockton Hospital, Dr. Barrett *v.* U. S. Casualty Company:

> The only case in which the question as to the right of a physician to the payment of his bill for a longer period than two weeks was before the Supreme Judicial Court in this Commonwealth is Huxen's case (226 Mass. 292). In this case the court said: "It is not in an ordinary case requiring longer medical attendance that the discretion of the board may be exercised to

charge this attendance to the expense of the insurer. It is only in unusual cases that they may do so. There would be grave doubt whether a case where the employee is able to go from his home in Cambridge to an office in Boston could be so unusual as to be within the purview of the act."

The word "unusual" is defined as follows:

"Of a character, number, or size not usually met with; uncommon; infrequent; rare." (Standard Dictionary of the English Language, Funk & Wagnalls.)

"Not usual; uncommon; rare." (Webster's Dictionary.)

"Not usual; not frequent; not common; rare; strange." (Century Dictionary.)

The evidence shows that this case is unusual; that it is a case out of the common run of cases, in view of the nature of the injury and the complications following such injury. The usual case and the usual personal injury arising out of the employment are those cases and injuries which require ordinary medical treatment and care, and go along uneventfully to their termination, and they may or may not require treatment for a longer period than two weeks. These cases are not within the discretion of the board to allow further medical and hospital fees after the first two weeks. A case may be unusual because the nature of the injury, its particular location, and its extensiveness necessarily entail a prolonged disability; that is, longer than the usual. It may be unusual because of any interruption of convalescence of such a nature as not to occur commonly in that particular class of cases, and because it is likely, unless specially treated, to jeopardize the probability of a speedy recovery from a medical standpoint and the employee's early restoration to his position as a wage earner. The employee's status with reference to his support of others is a factor which may be taken into consideration in determining whether a case is unusual. Under the usual classification will come so-called minor injuries, minor amputations, uncomplicated by sepsis, and all injuries or complications following them, the services of specialists, special nursing, and hospital care. Under the unusual case classification may come major injuries, compound fractures, injuries followed by sepsis, some major amputations and operations, serious pelvic and back injuries, and injuries requiring special apparatus or the services of specialists.

This was a very serious injury; the employee was in a critical condition; the stitches pulled out, and a secondary operation was necessary. The report of the injury shows that the employee had a dependent mother. It was a case that required hospital care and attention if the man was to recover at all, and particularly if he was to be restored once more to any degree of efficiency.

Probably the greatest factor in the satisfactory carrying out of the Massachusetts law has been its intelligent development along medical lines.

Eliminating the professional witness.—The old form of controversy, by presenting witnesses for and against the claimant, so that the man's rights depended upon the weight of the evidence presented at a hearing, has been materially modified by the naming of so-called impartial physicians. It was found that the malingerer or fakir in Massachusetts was almost an unknown quantity, and that when a man came to the board with a claim, 99 times out of 100 it was a fair claim. The question then arose of selecting doctors to examine these claimants, with the idea that a specialist in restoration of function was needed rather than a doctor who would say, "Yes, the man is disabled," or "No, the man is not disabled." In the early days of the act, insurance companies and employees did not avail themselves to any large extent of the section in the law providing for the appointment of impartial physicians. This was due chiefly to the fact that the medical policy of the board had not been determined. With the appointment of a medical adviser, in 1914, and the adoption of a medical program providing, in part, for the appointment of specialists as impartial physicians, there was a great increase in the demand for impartial examinations.

It is, of course, manifestly impossible for the medical adviser to examine all disputed cases, or even a small portion of them, and if it were physically possible, it would be an extremely unwise, not to say dangerous, thing to have any man placed in the position of examining accident cases in conference, again to express his opinion at a formal hearing, and then to insist to the full board that his opinion was the end of the medical law and must be accepted. The great success of the accident board has come from the utilization of the best medical brains in the Commonwealth. Members of the medical profession consider it an honor to serve as impartial examiners and are willing to make some sacrifice fully to preserve this feature of the law.

One of the difficulties that the industrial accident board faces constantly is to pass fairly upon the injuries of a man who chooses his own doctor and who does not choose wisely, or the rights of a man who is taken to a place which holds itself out to be a hospital. The time will come when the State board of registration in medicine, or some other State board, will supervise these hospitals, will check up their results, and will indicate whether or not they should be allowed to continue, and to what extent they will be allowed to go in treating complicated cases.

From an administrative standpoint, the industrial accident board is obliged to consider all doctors registered under the laws of Massachusetts as being qualified to practice. But you gentlemen know better than I can tell you that there is much incompetency in the treatment of fracture cases, and the results in many cases do not justify the payment of the sums of money charged for the treatment. In this particular regard, we approach the old-fashioned common-law tort case, in which the worse the result, the greater the financial return to the doctor—and sometimes to the lawyer and injured party.

Recently I was in a doctor's office and looked over a group of certificates, imposing and impressive in their display, one of which certified that he had taken a course in anæsthesia at a well-known New York polyclinic; and a second certificate was so unique that I copied the wording for future reference. Let me read it to you.

SCHOOL OF PATHOLOGY AND OPERATIVE SURGERY.—This certifies that Dr. ——— has completed in a most thorough, practical, and scientific manner the prescribed course of surgical operations, including operative surgery on the cadaver, and is thoroughly competent to operate on the living. SIGNED AND SEALED.

What are we going to do about it?

I have outlined rather briefly, but as fully as need be, the medical provisions of the Massachusetts act. They may not appear to be as complete as those of some of the Commonwealths numbered among the members of this organization. But this I may say, in all truth, and in justice to the commission which has charge of the administration and interpretation of our law:

Outside of a law providing specifically for complete medical and hospital care for the full period of incapacity, the Massachusetts law, as interpreted by the members of the industrial accident board, can not be improved upon. Personal attention to the necessities of each case is given by board member and medical adviser, with the result that in practically no case where expert treatment is required or indicated does the employee go without it; and with our present

plan of making one complete job of the medical care and cure of each incapacitated employee and getting him back into industry with the least possible loss of time at a suitable job, we believe that we are solving in a practical and economical way the problem of the man whom industry has maimed and handicapped.

[Dr. Donoghue also discussed the subject informally as follows:] The systems of medical service must vary, naturally, with the law under which you work. The Massachusetts law is, as far as medical service is concerned, a two weeks' law, with the right in unusual cases for the accident board to order further treatment.

Medical adviser.—With the advent of the medical adviser, who acted for several years as a consultant to the insurance companies as well as to the board, the insurance companies have taken over, I should say, perhaps 80 per cent of accident cases and given full treatment. That is, it was found by them as a matter of experience that a dollar expended for adequate medical expense would return $2 in saving on compensation costs. So that we have apparently a very high medical expense in Massachusetts, but we preserve our workingman power-to industry and to the State, and at the same time it makes a lower cost to the insurance companies for compensation. There are certain things about a medical system which are important and to which I should like to call attention. One of the difficulties in an administrative board is to get records that are adequate. The most difficult record to get with any degree of adequacy and accuracy is the average hospital record. Hospital records in a large hospital are kept, as doctors know, by the "pup" of the service. They are written up at his leisure and are sometimes corrected by the man in charge of the service where the treatment is given. It happens in many large hospitals that records are not made until months after the house officer has actually left the hospital. Records also are ambiguous or obscure as to who made them, deliberately in many instances, to prevent the person with the first information being summoned or called upon for his opinion. In other words, the comfort of a man holding a position as surgeon or doctor in a large institution is looked upon as superior to the life of an injured workman with a family of dependents. It is an intolerable situation, and accident boards must face it and must insist that something be done to change it.

In Massachusetts every death case comes before the medical adviser; we also have a system of medical examiners, so that a trained man sees every case of death by violence or from unknown cause. The report of the official medical examiner in Massachusetts has been made by decision of the supreme court prima facie evidence as to the actual fact, and it must be disproved by the contesting parties. Now, in the beginning many cases, the close border-line cases, slid by. In the days when alcohol was more plentiful the diagnosis of alcoholism would appear in red ink, but underneath might be in smaller letters or concealed in the body of the record "fracture of the skull." That putting in a record an abstract of a record has a great many dangers and worked in the old days great injustice. Now, in every case in which the record is not absolutely accurate we write to the medical examiner of that district and ask if it was called to his attention, and in the meantime we put an inspector on the case.

Impartial examiners.—We have a system of impartial examiners in Massachusetts, and it was a real act that was passed for us by the lawmakers, who are largely lawyers down our way, and they are no farmers when it comes to making laws for our benefit. They made these laws so that a member of a board untrained in medical facts appoints a man in whom he has confidence to make a report in a case in which two trained men have a dispute. Well, that can be one of the most foolish things in the world or one of the best. You can conceive of commissioners who think well of a chiropractor and would hire him to pass upon the expertness of two neurologists of high standing and excellent training.

Now we read into that law that impartial examiners are not simply for the purpose of determining whether or not a man is disabled, because practically every man who comes before our board has a disability and that is why the dispute comes to the board. These men are not malingerers, as some people have suggested. In other words, they don't make a conscious effort to deceive, but they have fixed in their consciousness that the injury they received or the condition they found themselves in after the injury is directly related to their ability to go back onto the job. Their mentality is not 100 per cent or they would not be holding many of the jobs that they hold, but they know that they can not for some reason or other get back into the working strife. Whether they are right or wrong they are disabled, and there should be an impartial examiner to determine why the man can not get back; the diagnosis of malingering is the diagnosis of the diagnostically destitute. These men have something the matter with them. It may not be the thing they think it is, but it is something definite and tangible that prevents their prompt return to work, and therefore the medical adviser goes over the papers in the dispute, makes an estimate of where the difficulty is and assigns that to a man competent to make a diagnosis in the case, and after having made a diagnosis a method of curative treatment is indicated. It is not as difficult as it seems to do that. We have a lot of curative centers in Massachusetts. We are blessed, or cursed, with lots of hospitals, of varying degrees and characters, but if you pick out the best ones you solve a lot of your difficulties.

The State went farther than it ought to go, in my opinion. It allowed the accident board to name an impartial physician, and the report of that impartial physician, made upon evidence presented to him by the man, by the insuring company, and by the board, is admissible in evidence without the man being present. I have grave doubts of whether that is a good thing. It is too much power, it seems to me, to place in the board, to make affirmative evidence which so vitally affects so many people.

Doctors' bills.—A fee table is a good deal, to my mind, like these diagnostic charts gotten out by the patent medicine men. It is easy enough to look at the chart and prescribe pink pills for pale people. Number 1 is such and such a thing, and number 2 is something else, a fee of $25 for setting a Colle's fracture, we will say. There are some men that $25 is $30 too much for, and with other men it doesn't begin to pay for the skill and the result which is brought about by skill. Fee tables are absurd. A crook can beat the smallest fee table in the world, and a good man will not work

under it. A doctor should be paid for adequate services; he should not be paid for what he does not do, but he ought to be paid for adequate medical services a reasonable price, based upon what everybody else is charging. In other words, I tell the doctors the workman is giving up more than anybody else absolutely under the law. He gives up 10 days to 2 weeks without pay, and he takes a minimum amount of compensation after that. Fourteen dollars a week, for instance, to a $40, a $50, or a $60 workman is an absurdity. The employer of labor pays a premium which he collects from somebody, because he has no money-making machine, and the doctor should give up a little something. In other words, he should meet the situation as an industrial condition, and he should not be confronted with a fee table in industrial cases. There should be a line of demarcation between average prices and what the doctor feels is right and just in order to meet an industrial situation such as the compensation law. Capital operations we vary. We do not believe in big fees for doctors, because there should be no big fees in this for anybody until the workman is more adequately compensated than he is at present.

Hernias.—Of course, hernia, to my mind, rarely ever results from an accident, from a single traumatism. It is the summation of traumatisms upon a weakened condition, and the last manifestation of it may occur when a man is coughing at home in the 16 hours out of work just as likely as in the 8 hours he is at work. Of course, the doctors recognize it as a source of income under some compensation laws. They find a hernia. They say, "Do you remember a day in the last so long [stated period] you strained yourself at work?" And memory is always good. As I look upon it, however, we might just as well handle hernias under an injury law, which our law in Massachusetts is, "any injury arising out of the employment." In other words, it is the last manifestation. Lead poisoning is chargeable in Massachusetts to the place where the man got the last grain of lead. To the last strain, which forced the rupture through, hernia is chargeable in many cases. But let us look at it in a larger way. The man with a hernia is a disability and a danger. He has a potential value in the community, to the man he works for. The replacement cost of that man is so much higher than curing him that it is an absurdity not to cure him, whether or not the employer is directly chargeable with it. So, instead of having him come up for hearing, and bringing in employer B or C or E, I take the position that if he is willing to have the injury cured, charge it to industry A and save all the cost of controversy for B, C, and E. On that basis we have asked the doctors to take what some doctors call a low fee. We allow $50 for an operation for hernia and for its treatment, and while we may be stretching the law just the least bit we say it isn't any more trouble to sew up two hernias at once than to sew up one, any more than it is no more trouble to tie six square knots than it is to tie three. On that basis we get along pretty well. We are following up our hernia cases and preserving the working capacity of those men, and the insurance companies find it is the cheapest and easiest way to handle the situation.

Witnesses.—Industrial accident boards do not want witnesses who deal in terminology. They want something given to them they can

understand. In one of the early days of the industrial accident board there was a big hearing, five doctors appearing on one side, with X-ray plates, four on the other. Five men thought that the X-ray plates showed a rotation of the fifth lumbar vertebra so that the transverse process impinged on the ilium; the other four did not think it did. But the man had a lame back—he had strained his back at work. So after the doctors got all through the board asked my advice, and I said, "Why not consider he has a strain of a deficient back, to be compensated until they cure it?"—which is the simple way of handling medical terminology.

The X-ray is the attempt of laymen to find something they can tie to without regard to the medical profession. They say, "Why, the X-ray plate shows it." The X-ray plate, when it shows something, is valuable; but it is worth only about 10 per cent in a diagnosis. Ninety per cent of the diagnosis must be made by a clinical doctor, who knows how to take that 10 per cent and add it to the 90 per cent of his study of the human being and then make a diagnosis. X rays should never be accepted at face value. There is nothing in the world that is quite as deceptive as X rays. We have had them now since 1896, and the interpretations of 10 years ago sound like jokes to us now, and I am convinced that the interpretations we are making now will be jokes to us in 10 years' time. In the meantime they serve a purpose and have a value, not conclusive but helpful when read in conjunction with a clinical examination. I do not believe any X-ray man is competent to make a clinical diagnosis from his X-ray picture if he does not know how to examine the patient. The Massachusetts commission does not accept X-ray pictures.

The CHAIRMAN. Dr. Thompson, of Oregon, will continue the discussion of medical systems.

OREGON SYSTEM OF MEDICAL SERVICE.

BY F. H. THOMPSON, M. D., MEDICAL ADVISER, OREGON INDUSTRIAL ACCIDENT COMMISSION.

The Oregon system of medical service is similar to that of some other States, but Oregon is probably the first State to put into active operation a regularly equipped physiotherapy department. The Oregon law, aside from administering a compensation fund, makes provision for the prevention of accidents, this work being done in conjunction with the State labor commission. But in case of accidental injury, covered by the act, the medical department aims to care for the injured as completely as possible. This care will be divided, for the sake of convenience of consideration, into four general sections: First, primary care; second, proper aftercare; third, reconstructive surgery; fourth, physiotherapy.

I believe that medical service, the character and type of it, will depend very largely upon how well you have your medical department systematized. We endeavor in Oregon to get as early and complete report covering the case as possible. When the proper information has been had we want that man to have the best care that he can get. We strive to get good primary care to the individual, whether it be in a fracture case or an infection case, or what not.

Practically, the injured has the right of selection of his own physician. This does not apply in hospital contract cases where the contractor furnishes medical aid through a contract physician. In Oregon the State law admits of such contractors, under certain stipulations. However, in cases where the contract physician has proven to be incompetent by bungling of cases, the commission reserves the right to demand his removal and his replacement by a competent physician. If refusal is given the contract may be canceled. Or, in case the commission considers that the man is not receiving proper care, it reserves the right to select a physician other than a contract physician for the completion of the care of the case; that is, to transfer the man to a different physician, or to give him a list of three or four physicians, capable and well qualified for that particular type of case, and allow the man to select from the list the one whom he desires to render the treatment. All medical care, even by these selected surgeons, is done according to an adopted fee schedule.

I believe a fee schedule is quite a necessary thing in the handling of compensation cases. Of course, the laws in various States and the conditions under which the commissions must work differ. The schedules for the States of Oregon and Washington are identical and accepted as standard for industrial surgery by the State medical societies of the two States, respectively. This illustrates the thing I advocated a year ago, the zoning of certain districts where there is an overlapping of work. If they can work under the same schedule or same system, it will eliminate considerable controversy. The

fee schedule is such as reasonably to remunerate for competent care, and very little complaint is ever raised—and none of serious import. Every surgeon in the State is treated the same. The schedule is a tentative one, in this respect: For a Colles' fracture the fee, I believe, is $35. Now, if that is a compound, infected fracture, that fee does not hold, and if one has a case that has resulted in an osteomyelitis, that case is going to be carried through and the man paid for the service rendered; but the fee schedule is a basis upon which you endeavor to treat each surgeon correctly and uniformly.

That brings up a question that came to my mind when Dr. Donoghue was speaking. It is not possible to provide that in every part of the State only a specialist shall treat a certain line of cases. We tried that in eye injuries, as they did in Washington State. We said, "Every foreign body imbedded in the cornea must be treated by an eye specialist or the surgeon will not be paid." We find in our State we have a great many isolated places, where it would be impracticable to get such treatment. But if the case is prolonged, then the man is sent in to a specialist. If a case does not progress satisfactorily it is reviewed by the commission, or a consultation ordered, and any special care needed is provided. This is done in hospital contract cases, also, at the expense of the person holding the contract. Radiographic service is paid for according to schedule, but excessive and unnecessary duplication of plates is not tolerated. The Oregon law provides for transportation and hospital and surgical care and nursing. While ordinarily $250 is supposed to be sufficient to cover the expense incurred in any ordinary case, there is, in reality, no limit to what may be expended for the restoration of a workman, provided that before expending more than $100 for hospital, $100 for surgical, and $50 for transportation and other expense, the commission be consulted and its approval for a greater expenditure obtained. This provision prevents an unscrupulous surgeon from piling up an enormous bill without knowledge by the commission. This excellent provision makes possible two very important features of the Oregon system, namely, reconstructive surgery and physiotherapy.

Because fractures are very common we endeavor to check up in those cases fairly early, and we encourage radiography in such cases, with an immediate mailing in to the medical department of those plates, not just after the fracture, but after the reduction or supposed reduction. Where injuries are in dispute we believe that we should have stereoscopic X-rays, those that will be of real value, rather than a simple flat plate.

There are many cases calling for reconstructive surgery. This is especially true in maltreated fractures and soft-tissue injuries that can have restoration of function by competent and well-timed surgery. Many cases have been so treated under the Oregon commission with most gratifying results; for instance, a Potts fracture that has been unreduced and united in vicious position, thus destroying the proper relationship between the ankle mortise and astragalus and throwing off center the weight-bearing line through the astragalus, or the similar disalignment of weight bearing in unreduced fracture at lower third of tibia and fibula, or in a fracture in which rotation of the fragment has occurred, and in ununited fractures,

also tendon contractures and peritendinous adhesions and severed tendons that have not been sutured, or successfully so, and many allied conditions. The commission in these cases selects the surgeon for the particular work in hand and orders the injured man to report to him for such care or operation as deemed best. Generally the man is anxious for restoration, but there are exceptions. In the cases that are not prone to accept restorative surgery, the disability award is made on the basis of disability that one would reasonably suppose to exist had the injured submitted to operation, and not on the basis of disability existing without operation. The one object, of course, of reconstructive surgery is to restore the injured to as nearly a normal condition as possible and thus aid him in the strife for existence. No permanent partial disability is awarded until all possible restoration of function has been accomplished. This makes essential the practice of physiotherapeutics.

The past experience in Oregon produced so many cases of fractures too long splinted, in which periarticular fibrosis had occurred, atrophy of muscles and muscle contracture, leaving ankylosed or partially ankylosed joints, that it was believed expedient to try out massage, physical manipulation, and electricity and hydrotherapeutics to see what results might be obtained toward restoration of function. Accordingly, a great many cases with marked disabilities were given such care, resulting in such marked and early improvement that it was deemed advisable to make a study of the work being done in Army reconstruction camps. This study was carried on by the writer and Commissioner Marshall, who, after seeing the work that was being accomplished by proper and sometimes prolonged aftercare, decided to recommend to the Oregon commission the establishment of two fully equipped physiotherapy departments, one to handle cases coming from the Columbia River Basin and the eastern part of the State and one for the Willamette Valley and the southern part of the State. This work was considered so important that the departments were fully equipped with hydrotherapeutic, electric, and other equipment, and trained Army aids employed to carry on the work, each department being under the direct supervision of returned overseas service men who had had splendid orthopedic training and were familiar with the various angles of physiotherapy. With such organization all serious fracture cases, as soon as union has occurred, are ordered to one or the other department for early treatment, with the object in view of lessening permanent disabilities and shortening temporary time loss. Many permanent partial disability cases are such because too much time is allowed to elapse before passive and active use. Contractions and fibrosis of too long standing can not be completely overcome. The results have been most gratifying. The surgeons throughout the State, with few exceptions, are glad to have the aftercare off their hands, primarily because their offices are not properly equipped for such treatment. And again, the average surgeon is not fully posted in the methods of proper physical treatment in the aftercare of fractures and other like conditions, for, as a rule, his main object is to secure a union in good alignment, leaving nature and ordinary use to accomplish what they will in the restoration of function. There was some objection on the part of some surgeons, who imagined that the calling of the

patient for such treatment was a discredit to their work. This objection, however, was overcome when the object of the treatment was explained. Now, when a patient is called in for such treatment the physician is sent a carbon copy of the order stating the reason for calling the patient in. Again, this early review by the medical department makes possible the detection of remediable deformities at a sufficiently early state for correction. In every such case, or in case the patient is transferred from one physician to another for special care, the original physician, in case of fracture or other specific condition, is paid in full for the care of the case, as per the commission's fee schedule, and the special treatment is paid for in addition. Of course, as far as physiotherapy is concerned, this work is done by salaried aids. The hospitals do not object to the establishment and conduct of these institutions, for they are essentially institutions for follow-up or aftertreatment and involve ambulatory cases only, and, under the Oregon law, when a case becomes ambulatory, it is no longer a fit hospital case, and if the man remains at the hospital it is at his own expense, as the object of compensation is to pay sustenance during the period of incapacity. In Oregon the hospitals care for the commission cases under a set fee schedule.

In our State and in Washington we do not permit open treatment of any fracture cases unless permission is first obtained from the commission. I think the physicians who have followed out results of bone plates find that ultimately the plate causes an irritation and more or less trouble one way or another, and because of the commission having direct control there is not going to be very much of that work done. A number of times a physician out in the State somewhere has written in and said, "I have an oblique fracture and I want permission to open that leg and put in a Lane plate." Consent may have been given in one or two cases, but as a rule the case is then transferred. The first physician, if he is not capable of handling that case, is paid in full for that fracture as if it was a simple fracture, and the case is transferred to one who is capable of taking care of it and leaving the plates out.

To give some idea of the magnitude of the work I will say that at present there is an average of 605 treatments per month given at the Portland department and an average of 534 treatments given monthly at the Salem department.

The Portland department is under the direct supervision of Dr. Richard B. Dillehunt, dean of the University of Oregon Medical School and a returned major from overseas service. The Salem department is under the direct charge of Dr. C. A. Downs, who was a captain in the overseas orthopedic department, and these men determine what treatment shall be had, supervise the giving of such treatment, and determine when treatment shall cease. Permanent partial disabilities are estimated by the chief medical examiner.

When physiotherapy has accomplished its work, the Oregon system goes a step further and gives its unfortunates who have suffered major disabilities of a permanent nature vocational retraining. This work is done only after the permanent partial disability award has been made. The first law of nature is self-preservation. The able-bodied and strong mentally and physically can well fulfill the law of the survival of the fittest, but the less fortunate deny the declared

law that all men are free and equal and prove that the greater the handicap the less possibility of successful strife in the commercial world. This holds true in the world of industry. This intensely economic, social, and humanitarian study and problem is, of necessity, boldly faced by the State industrial accident commission, and it was deemed a wise provision to make it possible that the ones who were most greatly handicapped might be placed on a little more equal footing with the unhandicapped by being retrained to some line of work that they could adequately perform. It is the belief of the Oregon commission that the compensation law is a law not for the employer only, and not to solve a sociological problem only, but, primarily, is a provision to aid the man who has offered his fingers or hands as a sacrifice on the altar of industry, and to make it possible for those dependent upon him to meet at least the bare necessities of life during the period of the incapacity of the bread-winner, and, if it be possible, surgically or educationally to restore the injured to usefulness in some plane of active life. It has, therefore, succeeded in securing the passage of amendments to the Oregon act that virtually remove the limit of what it may do for an injured workman if by so doing it will restore him to proper earning capacity and remove the possibility of himself and his family becoming dependent upon the alms of the public.

Now, as to the question of hernia. Hernia, we originally believed, as did our sister State, Washington, should be preceded by an accident. Now, we pay for every hernia that occurs in the course of the employment. I don't think there is a doctor who would question the fact that hernia is an evolution, and the appearance of the hernia is only the final step of what has been taking place from a defective closure of the internal ring from infancy, but after all, we are caring for the man who is incapacitated during his employment. In Oregon, while the statute is that hernia must be preceded by an accident, as a matter of fact we pay for every hernia that is shown to have occurred during the course of the employment, provided only the man takes the one course by which he may hope for a permanent and complete cure—that is, an operation, and he must submit forthwith to it. Of course, if a man has a good reason why he wants to wait for a week or a month the commission may consent, but he can't put it off indefinitely. He can not say he will wear a truss, as that would not cure him. He might go to California and be again paid for hernia there and yet it would be the same one. He has that potential liability of strangulation, and so we demand that he be operated on, if he receives compensation. On the question of preexisting conditions affecting an injury, we have found this: If a man has a supposed strained back or what has been diagnosed as sacroiliac strain, very frequently the prolongation of that is due to focal infection, bad teeth, bad tonsils, or something of the sort, which, if cared for, the condition will clear up. In many of those cases the commission has paid for the care of the teeth or the enucleation of the tonsils in order to get results, and it has gotten them in the majority of cases.

If it is a question of syphilis, which probably is not now considered simply a venereal disease but quite a common and general disease that can be contracted in many ways, we treat it as follows: We have a case of nonunion of fractures, and we wonder why we

don't get a union. If no reason can be ascertained, we have a Wassermann or Noguchi made. If we find the man is syphilitic, then the commission pays for the treatment of that syphilis until such time as we get a union of the fracture, and then the man is informed he must pay for it himself if he wishes the treatment to continue. It is a matter of economy, not only of the man's earning power, but to the commission as well in that case.

Briefly summarized then, under the Oregon law the injured man has the free choice of his own physician, with the reservation that the commission may select a physician to make a special examination or give special treatment if the case justify it, thus reserving to the medical department, ultimately, full control over selection of physicians.

Reconstructive surgery is the rule, if properly indicated, and to my mind is one of the greatest steps the commission has taken. This I believe and know from actual observation of what can be accomplished from such measures.

The Oregon system is certainly strong on physiotherapy as the only proper procedure to shorten time loss and lessen permanent partial disabilities.

When all that is possible has been done for restoration of function we advocate strongly vocational retraining for the injured workman who has suffered a major permanent disability.

All work is done according to fee schedule and all hospitals are paid according to fee schedule.

Ambulatory cases are considered nonhospital cases.

In cases of amputation temporary total disability is continued until an artificial limb can be secured and the State commission pays for the artificial limb.

The State Industrial Accident Commission of Oregon believes it its duty to disseminate the principles of accident prevention and to do everything possible toward restoration of the severely injured to some phase of industrial usefulness. It is its hope and desire that the administration of the medical department be so conducted as to be most helpful to the industrially injured, most economical to society, and most satisfactory to the employer.

DISCUSSION.

The CHAIRMAN. The discussion of the papers on medical systems will be taken up by Dr. Gibbons, who has been associated with the California commission as medical director for a number of years.

Dr. M. R. GIBBONS, medical director, California Industrial Accident Commission. I suppose that the visiting doctors have been inspired in the same manner that we of California and this commission have been by your presence here. We certainly appreciate the information and the help which you have given us, because your experiences are just exactly those that we are now going through. I think that the men who have been my best supporters here—some of them are here to-day—will think that what they are now hearing is very familiar. We have tried to settle these things for ourselves, and haven't had much time to go beyond our own experience, but it is almost uncanny the way in which it chimes in with all you are telling

us. Dr. Donoghue's paper was very interesting from the standpoint I have spoken of just now. Dr. Thompson's remarks were of the same character.

I think I can best take up some of the points that have been spoken of and compare our own law and our own experiences. The Industrial Accident Commission of California initiates nothing with respect to the treatment of injury cases, except through its State compensation insurance fund; that is, as a commission it does not take any active part in any treatment or assistance of treatment, except to scrutinize results and call attention to defects. First of all, our medical service is unlimited. It is given just as long as treatment is indicated as a result of any accident or any injury. Furthermore, our fees are unlimited medical fees. A doctor wrote some time ago, asking what he should charge for a certain piece of work. The man under his care had been caught in the circuit of a 65,000-volt high-tension wire while standing on a well casing. He ultimately lost one leg and one arm and he had numerous third-degree burns over his body, and he required amputations and a large amount of skin grafting and dressings of a character very objectionable to make. The doctor's letter was rather pathetic, saying he had frequently lost his meal while in the midst of a dressing. According to our fee schedule his fee worked out to $3,400. He didn't get that much, because the employer was an accountant in San Francisco and didn't have that much to pay. He got $1,400. Our law requires that the man is entitled to such medical, surgical, and hospital treatment, including nursing, medicines, and medical and surgical supplies, as may be required to cure and relieve him from the effects of the injury. It also provides that the employee, if he doesn't care for his doctor, may have tendered one change of physicians, or he may get a panel of three, if there are three available in his community, from his employer. If he takes his own physician when proper medical treatment is offered him by his employer he is required to pay for it himself, but taking his own medical treatment does not jeopardize his indemnity.

If the injury causes a temporary total disability, he is paid 65 per cent of his regular wages, unless that 65 per cent amounts to more than $20.83 per week, as long as he is disabled. Theoretically that can go on forever; practically, of course, it does not. When he is able to earn some money he gets 65 per cent of that he can not earn. When it is determined he has a permanent disability he receives a permanent-disability rating. For instance, if a standard man has lost his major hand he will get a rating of 45 per cent. If he has lost one eye and eyeball he will get 30 per cent. That is not strictly true, but say, for the sake of argument, he will get 75 per cent disability rating. For that 75 per cent disability rating he will get 65 per cent of his regular wages up to $20.83 a week for 240 weeks. After that time he gets a small rating, a small indemnity, for the rest of his life. For 70 per cent he gets 10 per cent of his wages for the rest of his life.

Dr. Donoghue has spoken of the impartial examiner. In California we don't designate him as an impartial examiner, and the law does not provide for an impartial examiner, but we have arranged through a species of metamorphosis for something very much the

same thing. When at the request of the medical department information of an impartial nature is required, the industrial accident commission appoints a special medical examiner. Reports of this special examiner are made to the commission through the office of the medical department, together with whatever comment is required. Usually no comment is required. Most of the men know the requirements of the commission and their reports need no interpolations. By the way, this information or special report is used as part of the record and is used in the place of evidence. The medical examiner is not required to appear before the commission.

In the matter of hernia we have arrived at very much the same result. Perhaps we would describe it in a different way. Our only effort is to see that it happened as it was claimed it did, and in the employment of the employer. There must be evidence which we can at least be excused in accepting as indicating that the condition happened when the man says it did. I had a man come in to me the other day who gave a history of having discovered a hernia. That sort of a case can not be accepted as an industrial hernia, because that may have been present before and not been discovered. He discovered it casually. We require that the man must at least have a cause for it, and those in his vicinity must have been aware that something happened to him.

X-rays are required in all bone cases or cases of suspected bone injury. They are not taken at their face value, by a great deal. I have said a good many times that there are not more than a half dozen men in the vicinity of San Francisco whose reading of an X-ray I would take. We don't take the readings ourselves, and we don't take anybody and everybody's else, but we require them to be taken by men of known experience, and the readings must come from them. I don't try to read X-rays myself, because I don't believe I am any better fitted than the average practitioner.

Dr. Thompson believes that the injured man has the right to his own doctor. I believe theoretically that is right. But in our practice we have found it hasn't worked very well. I saw a great deal of Army work, and I saw the men doing the Army work inspired with patriotism. Certainly they didn't have anything to lose by giving the best they had in them to the soldiers, but I don't believe that the soldiers got out of it what they would have if they had been private patients. That is rather a delicate subject, but I do think that the injured man would do better if he could select his own doctor. But on the other hand, I think that is not practicable. Certainly it did not work out here. We have a great many osteopaths and chiropractors, and we get some very bad results from allowing the individual to select his own doctor. I firmly believe the best result is obtained when he is required to accept the doctor whose services are proffered by the employer.

Now, the California law requires that the employer shall furnish the doctor. If the employer has insured, then of course he has the insurance company to look after the case, and the insurance company has gone about the matter from a business standpoint. In the early part of our work the insurance companies went about it in a very businesslike way. They got the services of groups of doctors; but the commission was opposed to this, because it thought it would not

produce results, but, quite the contrary, it did. I think the system in vogue in 1914, 1915, and 1916, before the war, has now changed. I think there is a very decided difference in the attitude of these groups, and that the system may be dignified now by the name of group treatment. I believe the kind of surgical treatment that is now considered essential can only be produced in group treatment. Our fees are such that the individual can not do his best work for those fees. If he is assured of a certain amount of this work he can afford to do it. He can afford to specialize and afford to have equipment to meet the demands.

The questions of backs and infections strike us very near home. About the question of syphilis we are extremely skeptical. Syphilis is advanced as an argument why the man should not receive compensation with a great deal of regularity, and the commission demands that cure of the injury be effected in spite of the condition of syphilis.

As to the question of open operations, in our first fee schedule it was said that the permission of the party who was to pay the bill had to be obtained before an open operation was permitted. Of course, there are a number of men who specialize in this work, and we allow the question to rest in that manner. Comparatively few operations for these things have been done in this State, because we have not looked upon it with any special favor.

In 1914, immediately after the law went into effect, we published a fee schedule. Very shortly after that, within two or three months, the first meeting of the State medical society took up that fee schedule, and while it was not adopted entirely it was tentatively adopted. The members got very much worked up a year ago and a committee of the State medical society decided to disrupt the whole thing and do away with our fees. They appointed a committee, which met frequently over a long period of time, and they called into consultation representatives of the industrial accident commission, and finally arrived at a fee schedule which was exactly the same as we had provided before, except that they increased it by 25 per cent all along the line. Our fee schedule, of course, represents a minimum, and a component part of the schedule is the sentence, "These fees represent a minimum; fees higher than schedule will be allowed when warranted by unusual difficulties or requiring an unusual amount of time." We do away with zoning by that phrase. The question of mileage depends on how much it costs a man to produce a given amount of work. After the first flurry in California we obtained the confidence of the medical profession. We have now the confidence, I think, of practically everybody worth while in the State, certainly no antagonism, and we have available for our special examiners the very best men connected with the colleges. Many of the men connected with the colleges are doing actual surgical work on industrial accident cases.

Oregon and Washington provide physiotherapy as one of their functions. California has no jurisdiction over physiotherapy and occupational therapy, except that the commission now considers occupational therapy, physiotherapy, and those things that go with them proper treatment, that they come under the category of proper medical and surgical treatment. While the commission does not

actually prescribe physiotherapy, it does scrutinize results and return the cases for further treatment when cases to whom the proper treatment has not been extended present themselves to the commission or come under its provisions.

The CHAIRMAN. Mr. Fisher, member of the Idaho Industrial Accident Board, will conclude the discussion of the papers.

Mr. GEORGE H. FISHER, commissioner, Idaho Industrial Accident Board. I think it might have been more interesting and perhaps more educational to have confined the discussion of a subject of such magnitude as that of medical systems to the medical fraternity. I think in the consideration of these problems of compensation and the medical systems connected therewith that we too often neglect the viewpoint. I think it quite proper in discussing these problems to take into consideration the conditions with which each State deals For instance, we must consider the matter of area, geographical location, the population, the transportation facilities, in order to appreciate the laws and the systems of the various States. There are none, perhaps, at this stage of progression who would not look back upon the experiences of some of the States, upon the action of their different legislatures, with considerable regret.

In the paper of Dr. Mowell, of Washington, he has told us that in 1911 the legislature neglected to provide any medical system of treatment whatsoever. That was lamentable, and that it remained so for six years, until 1917, without any correction was quite inexcusable, and when the correction did come it was only halfway, and 50 per cent of the expense was placed upon the injured worker. However, did we understand the condition that prevailed in that particular locality at that time we might have agreed that was the very best that could have then been obtained, but the splendid system that has evolved and which is in vogue at the present time in that State is certainly commendable. In reference to the medical system and the law in the State of Oregon, one very splendid feature that I observed was the reservation of right on the part of the commissioner to remove the inefficient physician who had bungled his case. I also noticed with considerable interest the very splendid system that has grown up in Oregon with reference to vocational retraining and the prevention of accidents, the safety division, also the departments for reconstructive and restorative surgery, and the different classes of therapy that they have. I also noticed this, that the law may be quite unlimited, in so far as the State is favored with a liberal industrial accident commission and a liberal medical department, but there seems to be a chance that the injured workman might not obtain medical treatment in excess of the limit because of not making application for same at the proper time. However, that would be the rare exception instead of the general rule.

The splendid system in Massachusetts, I think, is unsurpassed in any State in the Union. I think perhaps it has one of the very best systematized medical departments, very much specialized in detail, and one very commendable feature that I noticed is the method of obtaining the examination and reports of the impartial physicians stationed geographically, for convenience, in the different portions of the State. The medical system of Idaho, I think, bears investigation. Idaho is a State of magnificent distances. I presume that the

entire New England States might be lost in Idaho, and in reaching from one end of the State to the other we have to pass through the States of Washington and Oregon. The interests are very much diversified, great lumbering interests and the mining of lead and silver are in the north, while the agricultural and stock-raising pursuits, are in the south. Idaho has needed so much capital, so much taxes for development, to build its roads, make its bridges, and make it a place productive and attractive for its population, it has had but little chance for financial help along other lines, such as a medical department in the compensation board. At the present time we have no medical department. However, the law is broad enough so that we get by at the present time without any very serious inconvenience. The law of Idaho is an unlimited law. There are many States that are unlimited in certain respects, but I believe about six States are unlimited completely. There are those that are unlimited as to costs but limited as to time; there are those that are unlimited as to both time and costs but that place part of the cost on the workman; there are those that are unlimited in all these respects and yet sickness is not covered.

Under the workmen's compensation act in the State of Idaho, it is incumbent upon the employer to furnish to the injured workman such medical, surgical, and hospital treatment immediately after the accident and for a reasonable time thereafter as may be required and requested by the injured workman. The industrial accident board having the discretion to determine what would be reasonable treatment, it is thereby unlimited. There is a section of the law which permits the employer and employee to enter into an agreement with a contract hospital whereby the employee is furnished medical treatment for accident or sickness contracted while in the course of employment, other than venereal disease and sickness as a result of intoxication. The contributions of the employees must not exceed in any case $1 per month, unless, within the discretion of the board, after a hearing is specially called for that purpose it can be shown that there is a reasonable need of a greater contribution. Recently this matter of an increase came before the board upon a request of the hospitals of the great mining and lumbering interests. The entire board went to the city of Wallace and held a prolonged meeting with all of the employers, with all of the doctors connected with the hospitals, and with the representatives of the different workingmen's unions. It was unanimously agreed that the best service was none too good, and it was perfectly agreeable and satisfactory that a raise be made, so that at the present time there is a contribution from the workmen of $1.25 per month, to which the employer adds 50 cents. That arrangement was made in order that the best services might be given. There seems to be no particular objection to the medical treatment given to the injured workmen throughout the State.

With reference to the workman choosing his own physician, there is no objection on the part of any insurance carrier to this, for first aid at least. The injured workman has the right and privilege to get the very best and quickest aid that he can, and for him to remain under the treatment of that physician is perfectly satisfactory with the insurance carrier, unless it is very apparent that the treatment is not proper. However, with a hospital contract it is different. Most of the hospitals with which contract arrangements are made are in the

locality of the mining interests, which are mostly all self-insurers. However, even if the injured workman is treated by the physician of the hospital, if there is any ill-treatment or dissatisfaction, that may be changed through an appeal or request of the board for its investigation.

The Idaho law is, as you know, compulsory. We have the State fund along with the casualty companies. The State fund, however, is not under the control of the industrial accident board, other than for the adjustment of its claims for accidents. It has an insurance manager at the head of it who is appointed by the governor, the same as are the members of the industrial accident board. There seems to be splendid success in the adjustment of claims of compensation and in the medical treatment given. No one knows better than the industrial accident board that the law has its defects. However, it passed one legislature without any amendment. If the legislature will be kind enough to listen to a few suggestions of the industrial accident board we could suggest a few minor changes to make it more workable.

I desire in closing to express on the part of our board appreciation for the courtesy shown to Idaho, one of the baby States, one of the more recent to adopt workmen's compensation, in being given a place for a brief discussion of any subject in this splendid conference.

The CHAIRMAN. The subject of this afternoon's papers is now open for general discussion.

Dr. DONALD MACLEAN, chief medical adviser, Nevada Industrial Commission. I am surprised that Mr. Donoghue's ideas agree so well with ours. I do not believe in X rays much, but they do have their uses in this regard. If a general practitioner knows that X-ray pictures are to be taken and that those pictures will be submitted to experts, either expert surgeons or orthopedists, he is a good deal more likely to be careful than if he hasn't that held over him. In a State like Nevada, which is sparcely populated, general practitioners are apt to get a little careless, a little crude in their methods. So we insist that X-ray pictures be taken of all fractures and submitted to the industrial accident commission. I am frank to tell you that not one per cent show anything, but they do help to make the men a little more careful. Further than that, they have an influence upon the workman himself, who may be more or less of a neurasthenic. He thinks, "I have a broken leg and it isn't well." You show him an X-ray plate and say, "It must be well; it doesn't show." As to fee schedules, I am also in accord with Dr. Donoghue. I am not in accord with fee schedules. We had one and submitted it to the State medical society. We raised it, and still it isn't satisfactory. With the high-class man it bothers him. It is far better to let him make a satisfactory fee in a lump sum and not be bothered with putting down separate items, although we have a fee schedule and try to stick by it.

I was very glad to hear Dr. Thompson take up a subject in which I thought I was pioneer. We hold that when a man receives an injury to his back and it is proven that because of some infection the man does not get well it is the duty of the employer to clear up that infection. In other words, he has to get the man on his feet. In the case of infected tonsils, teeth, appendix, or gall bladder, or even

if the man has some venereal disease which predates the injury, we claim it is the employer's duty to clear up that condition so that the man can be returned to normal. I thought we were pioneers in Nevada in that respect. We hold the position that we do not care how much money we spend so long as we return the man to work normal.

Speaking of an impartial medical referee, I do not know if there is such a thing. We send a man to San Francisco and three specialists examine him, and they do not agree. The reports come back to us, and we submit them to a diagnostician and ask him what the man's condition is and what can be done for him. We want to cure the man. Frequently we are told that to cure the man it may be necessary to give him a few hundred or few thousand dollars. If it will cure him, I recommend that. If it would put a man on his feet, I would recommend that to the commission.

I agree with Dr. Donoghue that there is no such thing as a malingerer. I frequently say, "This man is a malinger," but to cure him, to get the idea out of his head, the commission has to give him some money, and heretofore it has always given the money, with the best of results.

Mr. MACKEY. It is a rather cold thing, as Mr. Fisher said, for a layman, even though he has had some experience in these matters, to inject himself into a discussion of medical questions. I have had some experience with doctors in Pennsylvania, and as a group they are the most helpful and most detrimental agents to compensation work I know.

In Pennsylvania I think we have one of the poorest written laws in the whole United States, but in practice we have one of the best, for the reason that our board does not place dependence upon the medical gentlemen who are called by the contending parties before us. I had a very long and varied experience in common police courts, trying all sorts of cases, in which the so-called medical expert testimony was generally the storm center about which we orated and which troubled the juries, and I learned there personally to disregard such testimony or to place very little weight upon it, because as a practitioner, if I had a sufficient retaining fee, I could get almost any kind of a medical opinion I wanted. So I took the experience and that knowledge with me from the courts into compensation work. It is the disinterested medical expert who is the real fellow behind this work, because, after all, when you come to the disposition of compensation cases it depends in every case upon the right assessment of medical facts. Now, when I started out I thought that the real theory behind compensation law was to give the employer the right to select the physician, because his interest was such that he would be impelled to select the very best. I am beginning to change my mind on that. There are so many corporations which go out and gather in by contract so many of the medical profession in so many communities that we have the unfortunate spectacle, in my mind, of the man's own physician appearing in court and testifying against him. I am beginning to feel that the medical profession is sufficiently manned with able and honest men that we can venture the experiment at least of allowing the employee to go out and select his own man, because while there may be some imposition, still I believe the sum total of the general results will be far in favor of

that system. I am sure that almost every injured man will do better if he is allowed to select his own man, in whom he has confidence, because, after all, this medical game is 75 per cent a confidence game anyway.

The great bulk of our work at the present time is reviewing agreements. In Pennsylvania, since 1916 to the 1st of September of this present year, there were executed between the employer and the injured employee 300,244 voluntary agreements. I have taken the position that when once an employer and employee enter into a written compensation agreement that agreement is then under control of our board. It is the primary instrument, its terms to be suspended, revived, or modified from time to time, as the status of the parties changes. Therefore our work very largely at the present time is to take care of the fluctuating conditions that develop under those agreements, and we allow no such thing as a final receipt, an absolute termination of the employer's liability to pay, until the full running of that period during which there might be a possible change.

Now, you can understand that such a situation and the review of those agreements present continually before our board petitions on the part of the employer for the suspension of his liability on the ground that the employee has returned to work and there is a cessation of disability. On the other hand, we have many petitions from the employee, setting forth that he did go back to work, but there has been a recurrence of disability and therefore asking that the terms of the agreement be revived. It is a medical question entirely. I haven't got time and I attach too little importance to partisan medical testimony to sit and listen to the doctors whom the employee might bring forth or the employer might bring forth to establish either one of those objections. When the case comes before us we have our medical man, paid by the State of Pennsylvania, and when we arrive at the point that we can't believe him we will dispense with his services. We will say, "Doctor, take this man and look him over." The doctor comes back in a few minutes and makes his report. Of course, if there is any serious question about it both sides have their doctors there, and the commission will go further and perhaps appoint somebody else. The point I want to make is this: The doctor is the big fellow in this work; the accuracy of the medical testimony is the real basis upon which justice is going to be done to the injured man, and also to the employer. I want to take a little issue with the gentleman from Ohio in the statement he made this morning, and I don't think he meant it entirely when he said that in Ohio they were administering the law for the workingmen only. I do not think he meant that. We are administering the law for the workman, for the employer, and for society at large, because they all have a very large interest.

The medical men of the United States are trained men and I don't think we need fear the soundness of their judgments or the honesty of their purpose. But I don't think it is fair to the medical profession to create a situation where it is necessary for the employee to bring in a doctor and the employer to bring in a doctor, who may at least have to strain their consciences to become partisans. I think we ought to get the power from our legislatures, if we haven't it, to select our own medical men.

Dr. GEORGE W. GOODALE, of San Francisco, Calif. I rather beg your pardon for obtruding my word in such a conference. I am not identified with the commission here, or with any of the commissions. However, I take a keen interest in compensation law, and have been devoting my time and my thought uninterruptedly for the last seven years to this cause, which gives me an excuse for speaking to you.

This law, as it works in California, and as it must work throughout the country, is medical, nine-tenths of it. The one great thing for which this law was enacted was to make the workingman well again, to give him the highest class medical and surgical treatment and to see that he receives the same attention and the same care and watching over as if he was a millionaire. The California law has four purposes, and it is the practical working out of those purposes that counts. In the first place, we have to see a man has the very best surgical skill. In the next place we have to see that the rights of the employee and employer are protected, that proper reports go in so that the man can be paid his compensation, and that proper reports go in upon his medical condition, so that the commission can see whether he has received proper attention or not. Next comes the rehabilitation after the medical and surgical part of the treatment of the cases is finished, and we must see that the man receives all the different treatments which may be effective. Next, inasmuch as the law of the State says that the employer and not the employee is the one who appoints the physician, it is the province of the medical society to see that the psychology of the employee is carefully watched, and because of the mere fact that he is sent instead of coming at his own volition to the doctor, he should be handled in such a way that from the time he enters the doctor's office until he is discharged as completely or partially cured he will have every confidence in the doctor. I believe that organized medical-group treatment, not only in compensation but in general private practice, is the solution of proper medical and surgical treatment. For one doctor to take any case, prescription, back, fracture, etc., is far more ancient than the old public liability law.

I believe that we are seeing the dawn of a new day in medical treatment. Go to Rochester, Minn., and see the wonderful work accomplished by the effective genius of two brothers. They have taken a little town there and made it famous, simply because they stand for a principle.

The only way you can get good work is by organized medical societies. You must have central control, specialists, emergency hospital service; you must have people trained in making your reports; you must have rehabilitation, and the only way that you can get them is by organized medical group treatment. The group feature of surgical and medical practice is coming very strong. It is up to you to see that the workingman gets the very best medical service, and I would like to see this association give serious consideration to medical systems, and to the possibility of having group competing against group for this work, which system will eventually come.

The CHAIRMAN. The discussion has now exceeded the 30 minutes we decided on originally, but Dr. Donoghue, of Massachusetts, re-

quested the privilege of taking up the thread of the discussion at the end, and if you will bear with the chair, I will permit Dr. Donoghue to conclude the discussion of medical systems.

Mr. CLARK. I want to thank the gentleman from Pennsylvania for calling my attention to a blunder I seem to have made, if I said "workmen only." I want the record corrected, if the record was made. What I meant was "workmen primarily." That is what comes from talking without thinking.

Dr. DONOGHUE. I want to say a word about what the gentleman from Pennsylvania said. Who hires the doctors? Who searches the community over to prove some absurd question? It is the lawyer. If you could eliminate the lawyer you could eliminate the searching of the community to find some man who would testify to something that is nearly—not quite—true. I made the point before, that the medical expert in court is in an unfortunate position, and the medical profession as a profession does not take any back seat, as far as honesty is concerned, with any other profession. The difficulties of the profession are the same as the difficulties of the ordinary man. They come from ignorance. The physician does not know all there is in the world, but you expect him to know all about everything. Medical experts in court are called upon to answer questions a lawyer asks them. I have tried to do it for 20 years, and it is some job. Here is a sample of what they put up to you, and it is a sample of what they try on these boards: "Doctor, would a blow upon the breast cause a tumor?" And I start off, trying to enlighten the court, "If by a tumor—" "No," the judge says, "You are old enough to know how to answer a question." I say, "I don't know what they mean by a tumor." "Then," he says, "you can't answer the question." And then they say the doctors don't know.

And then, let us take the commissioners. The commissioners knock the doctors more or less, I mean in a general way. What have the commissions done to get medical opinions down to a tangible basis? Eighty per cent of things medical men of equal training agree upon. Twenty per cent are still in the air, because we are still learning, but how many commissions here have the courage to furnish a decision upon a medical case and say, "We believe this is a fact"? I would like to see how many opinions you print, in all the States. You print the decisions you think will get by and you pigeonhole all the others. Usually you say, "We are forced to decide this case upon the facts presented." California, when it gets a real opinion upon a real thing, can quote it again, but the others don't. You are still trying to decide on partisan medical opinion and naturally partisan medical opinion doesn't look very well. Printing a decision and comparison would aid a little clearing up the situation.

This other thing, about the supermedical man who is going to boss the entire medical profession of any given State—I don't think he is born yet. And I don't think there is any medical adviser of any State who can settle every question. The progress we have made in Massachusetts has been made by taking the best brains of the medical profession, and after all the medical profession knows more about the medical profession than anybody else knows about it. If you put your best medical brain on your best case and let that man solve it you are going to do a good deal better than by putting up a

superman, putting him on a pedestal, and because he says a thing is so it has got to be so. I don't think any medical man or commission has got to the point yet where it has the right to tell the medical profession how to treat cases. The medical profession knows how to treat cases better than anybody else. They may need help in individual cases but they ought to be encouraged to get that help instead of saying "You don't know how." For instance my friend Thompson says Oregon does not allow them to use bone plates. That is just as absurd, in my mind, as saying they must not use medicine. Suppose the plate does cause trouble. You knew that in the beginning. If you have to undo part of it, probably 90 per cent of what you undertook to do you obtained. It is an absurdity.

I am not going to take up too much time, because I have been warned. Back strains down our way are more or less seasonal. In a certain type of man from a warm country, along about November his back bothers him. He isn't going to swing a pick in the winter, and his back bothers him. He goes to an orthopedic man, and the orthopedic man says, "Yes; you have a bad back," and puts on a plaster cast, so he certainly is disabled all winter. During the war the orthopedic man came in as the superman. Orthopedists, by reasoning backward, have said that if they had seen the case first they could have done a better job than the man who saw it first, but most of them have no specific treatment at all. I do not want to minimize the orthopedic man. He has a place, but he is not a superman to tell the surgeon and everybody else how to treat all kinds of cases.

Mr. KINGSTON. What do you say as to Dr. Thompson's statement about how they deal with hernias?

Dr. DONOGHUE. I will come back to that to-morrow afternoon. Physiotherapy and vocational rehabilitation ought to be carried on under medical supervision. They are now the playthings, more or less, of hot-air artists and social-service enthusiasts. There isn't any use in trying to rehabilitate a man and put an artificial arm on him if he has a sensitive nerve stump, but I have seen it tried. You must have continuous medical supervision and not allow some rubber or baker to tell the man what to do. In Massachusetts we have gone as high as $600 in one case for fees, and that was a case of broken back. Although we have a two weeks' medical period, we have the provision that in "unusual" cases the board may accord additional medical service, but I have some doubts whether the "unusual" feature should be extended to a single man remaining in the hospital who is drawing his compensation. He would have to pay his board somewhere. I am not sure whether he should not make some payment after the first two weeks so as to equalize his benefit with the benefit of the married man.

The CHAIRMAN. Meeting adjourned until to-morrow at 9 o'clock.

WEDNESDAY, SEPTEMBER 22—AFTERNOON SESSION.

CHAIRMAN, WILL J. FRENCH, PRESIDENT, I. A. I. A. B. C.

BUSINESS MEETING.

The CHAIRMAN. First on the program is a business meeting. Reports of committees. Is there any committee ready to report?

Mr. VERRILL. That, I suppose, calls for a report, at least brief, from the standing committee on statistics and compensation insurance cost. The committee has usually submitted a formal report each year. This year I have not prepared a formal report, for two reasons. What perhaps I might call the principal work of the committee during the year is presented in Mr. Downey's printed paper, which was a part of the proceedings yesterday morning. With regard to the whole of the work of the committee, that will be presented in a bulletin which is already in proof at the Bureau of Labor Statistics. Dr. Meeker some months ago had a history and summary of the work of the committee from its beginning prepared, taking the minutes of the committee's meetings and its annual reports as a basis. This will include all the work of the committee, including its meetings of the past year. As that will be available in the very near future, and as it is so comprehensive, it has not seemed best to present a formal report at this time of the committee's work merely for the year. I will review it briefly so that the scope of it may be seen.

The committee held two meetings during the year, each of two days, one at Harrisburg early in December and one in New York City in the middle of February. The subjects with which the committee dealt and on which it reached a conclusion included the adoption of a new basis for accident frequency and severity rates. This basis was the 1,000-hour basis instead of the 3,000-hour basis. It was adopted for convenience, because it was thought what one may call a decimal unit was better than the 3,000-hour unit, which suggested a full-time worker on a 10-hour-a-day basis for a year, and the suggestion was a little bit unfortunate, because it was sometimes misunderstood that that indicated that that was the usual working year and working day. Any rates on the old basis, of course, are easily interchangeable or reducible to the 1,000-hour basis, and therefore the change is not one causing anybody any inconvenience.

The committee also revised at one of these meetings the remarriage experience table, which was included in its report of last year.

The other most important subject of the committee's work, which will be included in the bulletin which the Bureau of Labor Statistics is printing, was a revision of the classification of industries. The basis of this revision was the experience of the insurance companies, which was obtained through conference with the Workmen's Compensation Service Bureau, and the experience of rating bureaus with which the committee was fairly closely in touch, especially through

Dr. Downey's work in Pennsylvania. That industrial classification is considerably changed from the old one in the direction of classification and reduction of the number of classifications by eliminating those which seem to be of no practical value. Another work of the committee at its last meeting of the year was a revision of the so-called standard report forms. The changes are not of any serious consequence and are, of course, presented by the committee as of value in a suggestive way, rather than with any idea that any commission is under obligation to accept them as limiting it in any way. The report forms merely are supposed to represent the minimum requirements which any commission would be likely to need.

The CHAIRMAN. Is there any other committee ready to report?

Mr. KINGSTON. I do not rise to make a report of any committee, but I wish with your approval, and of course it will have to be with the unanimous consent of the meeting, to give notice nunc pro tunc of a change in the constitution. This notice should have been given at Monday's meeting, but it did not occur to us until to-day. The executive committee now consists of the retiring president, the president, vice president, the secretary-treasurer, and four other members, making a committee of eight. It is thought the committee had better be composed of nine. Then there is the other difficulty—we are rather a far-flung constituency, extending from the Mexican border to the North Pole, and from the Atlantic to the Pacific, and it is rather a difficult task to get the members of the executive committee together. The tendency has been to feel that the executive committee heretofore has been rather undermanned. I am not proposing a very large increase, but I do propose that the constitution be amended to provide for five members in addition to the four who are ex officio. I merely give notice of that now, and with unanimous consent it can be considered at the final business meeting, which I presume will be held to-morrow night.

The CHAIRMAN. Is there any objection to Mr. Kingston's proposal to increase the executive committee by one, in order to provide more satisfactorily for a quorum? Hearing no objection, the matter will be taken up, then, to-morrow night in the regular order of business. Is there any further committee report ready?

Mr. KINGSTON. May I mention to the chairman of the committee on credentials that it would be very wise, I think, to have that report presented. I was in hopes we might have it in the hands of the members at to-day's meeting, so that we might be able to see before us "who's who" of those present. It is a little difficult to carry names and faces in one's mind, but the more important thing to which I wish to call attention is that of having that report presented so it can be noted in the report of the proceedings. One of the things I regret, on reading over the report of the Toronto convention, held last year, is that there is no such report of a committee in the proceedings.

Mr. VERRILL. You are in error. I think you will find it at the end of the proceedings.

The CHAIRMAN. Any further committee reports? Hearing none, unfinished business comes next. Any unfinished business to report and consider, Mr. Secretary?

Mr. VERRILL. I know of none.

Mr. KINGSTON. Should we not have a motion on record as to adoption of the minutes of the last meeting? It seems to me that this book which is available now for distribution embodies the report of the last annual meeting of the association, and I think a motion should go on record accepting this publication as the proceedings of the last annual meeting.

The CHAIRMAN. Evidently some of the delegates have not read such a book.

Mr. KINGSTON. I will make such a motion.

The CHAIRMAN. Is there a second?

[The motion, that the printed proceedings of the Toronto convention, as embodied in Bulletin No. 273 of the United States Bureau of Labor Statistics, be approved and accepted as the official minutes of the last annual convention, was seconded and carried.]

The CHAIRMAN. The chair has two or three resolutions. There is a resolution submitted by Mr. W. H. Pillsbury, of the California commission, dealing with the question of maritime employment as related to workmen's compensation, and another relating to railroad employees. It is the custom to refer these to the committee on resolutions. If there is no objection, that will be done, unless you would like to have them read now.

Mr. KINGSTON. I think they ought to be referred to the committee.

The CHAIRMAN. They will be referred to the committee. I have a letter here from the Public Health Service, Washington, D. C. The letter is written by Dr. Bernard J. Newman, the sanitarian in temporary charge of that department of the Public Health Service which has sanitation under its jurisdiction, and the letter is a request for the International Association to appoint a committee to assist in the work of preparing standards relative to the sanitary code, or codes, that have been enacted in various jurisdictions. If there is no objection, the chair would suggest that that letter be referred to the incoming executive committee, because the plan outlined is one that undoubtedly we will be anxious to further. It is asked of us that we deputize three members to meet for the purpose outlined. Is there any objection to the suggestion of referring it to the incoming executive committee? Hearing none, that will be ordered.

I have a telegram from Commissioner Fred M. Wilcox, of Wisconsin, asking to be remembered to the convention delegates and expressing regret because he was unable to attend and have a part in the discussions.

Here is a telegram from C. H. Younger, of Olympia, Wash., as follows: [Here the telegram was read.]

Those of us who attended the Boston convention will remember with a great deal of pleasure Miss Eunice G. Anderson. Miss Anderson then had charge of the compensation work in Wyoming. She was an excellent delegate. Miss Anderson is now in charge of the Historical Department of the State of Wyoming and sends her regrets for her inability to be with us.

I have a letter here from R. M. Little, director of the Safety Institute of America, in which he conveys his best wishes. Also a letter from Edward F. Boyle, of New York, in which he expresses

his regrets for inability to attend this convention. Is there any further new business?

Mr. VERRILL. There is one matter that should be brought to the attention of the meeting, and possibly this is as good a time as any. You have all seen the formal papers presented at this meeting. It is assumed, however, that some persons who have submitted papers will desire to make some minor revisions before the papers become a permanent part of the proceedings. Now, anyone who wishes to do that should submit his revisions without delay to the Commissioner of Labor Statistics, at Washington. Of course, if his revision can be made here and handed to Mr. Stewart or to myself the matter will be easily taken care of. If that is not done, any revision that it is desired to make should be done without delay. The papers are in the printing office. They were printed from type, and the type is standing, and to keep several hundred pages of type standing for a considerable period is a serious embarrassment to the printing office. It can not be arranged that the type will be kept standing for any considerable time, so the revisions should be submitted without delay.

Mr. KINGSTON. I think it would be well to answer these messages that have been received from our friends who have not been able to come but who have thought of us, and send a message of fraternal greetings to them. I move a message of fraternal greetings be sent by wire to the parties named a moment ago who have sent us these messages. [Motion seconded and carried.]

The CHAIRMAN. Is there any further new business? Hearing none, the next order on the program is that of the medical question under the title of "Administrative problems."

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MEDICAL—ADMINISTRATIVE PROBLEMS.

CHAIRMAN, THOMAS F. KONOP, COMMISSIONER, WISCONSIN INDUSTRIAL COMMISSION.

Mr. FRENCH. The chairman named for this particular session is not with us—Chairman A. E. Spriggs, of Montana—and the chair has extended an invitation to one of our new delegates, and yet one who comes from an old compensation State. I should like to ask Commissioner Thomas F. Konop, of the State of Wisconsin, to come to the chair and preside over this particular session.

The CHAIRMAN. To say that I appreciate the honor is not saying enough. I feel it and I know it is an honor to my State to preside over the deliberations of this convention. We had a beautiful ride this morning, and refreshing, and I hope that this afternoon we will have some spicy discussions, which will benefit us all. We all had a fine ride and saw the beauties of San Francisco, and each and all of us are thankful to Mr. French and his associates for arranging this trip. The first number on our program is Dr. P. B. Magnuson, medical director of the Industrial Commission of Illinois. I understand that Dr. Magnuson is not here.

ECONOMY OF PROPER MEDICAL TREATMENT.

BY PAUL B. MAGNUSON, M. D., MEDICAL DIRECTOR, ILLINOIS INDUSTRIAL COMMISSION.

[This paper was submitted but not read.]

In the October, 1919, issue of the Annals of Surgery there appears on the first page an article by Dr. George W. Crile, of Cleveland, entitled "The good surgeon," which seems to me to be so applicable not only to war and civil surgery, but to the special surgery of industry, it is, by permission, being copied in part as a preface to this article:

> The surgeons and the pathologists who for four years have intensively studied war wounds have formulated many theories of treatment—many apparently contradictory theories. Thus there have been presented the claims of the value of various chemical agents against those of no chemical agent; of moist dressings against dry; of heat against cold; of frequent dressings against infrequent dressings and of no dressings against both; of sunlight and of electric light against occlusions; of immersion against hot air; of bacteriological control against clinical judgment; of vaccine toxine and foreign proteins against normal reaction; of wound inoculation with harmless organisms against wound sterilization; of isotonic against hypertonic solutions; paste has competed with paste, bipp with ip, sap with both, and chromic paste with all.
>
> Does not this intensive study of infection in war wounds for this comparatively short period equal and recapitulate the more leisurely study of infection during the 30 years since Lister first proposed the carbolic spray? And is there not slowly emerging from the present conflict of opinions the same fact as that which emerged from the post-Listerian period—that the one agent of successful surgery, whether war surgery or civil surgery, is *the good surgeon?*

This paper is written in the light of two years' experience as medical director of the Industrial Commission of Illinois and nine years' experience as chief surgeon of several large corporations, hav-

ing a great number of accidental injuries to care for every year. My criticism is intended to be constructive, and it is voiced in a spirit of helpfulness; if anybody's toes are tread upon, it is not with the intention of arousing the ire of those wounded, but with the hope that the suggestions may result beneficially to the injured employee, to the employer, and, incidentally, to the profession.

With the enactment of workmen's compensation laws throughout the country it became necessary for industry to adopt an entirely different attitude toward injured employees. The old practice of turning the matter over to the claim department to make the lowest possible money settlement in cases where liability existed, or to the legal department when suit was instituted, had begun to give way before that all-powerful weapon, public sentiment, even before the new theory that industry as a whole should stand the loss incident to injuries to employees was enacted into law. Some of the more progressive and far-sighted corporations gradually adopted the policy of administering first aid and furnishing surgical attention when men were injured in their plants. At first this was done only when the injury was caused through circumstances under which there might be liability for damages. The next step was the shop doctor, paid a certain fixed sum per annum, and then his services were made available to all injured employees regardless of liability. Then was born a new branch of the profession known as industrial surgery, which even now is still in its infancy. This arrangement justified the expense in that it kept employees at work more steadily and frequently paved the way for a cheap settlement of a liability case. This latter consideration tended to make the doctor an adjunct of the claim department, a function which is exacted of many of them in this enlightened day and age.

The practice of relying upon the plant doctor to obtain the confidence of the injured employee and thus make smooth the way to a settlement was not, then, without justification. The employer, while none the less morally liable, was not legally liable to furnish medical and surgical treatment to injured employees, and when he did furnish it, although not from philanthropic motives, who shall say that he was not entitled to the benefit of intelligent, honest, cooperation on the part of the company doctors toward minimizing the amount paid out in damages? Probably because there was no duty devolving upon the employer to furnish medical and surgical assistance little attention was paid to the quality of such service as was furnished, and the wonder is that this branch of the profession has advanced to its present status, in view of the initial qualifications of doctors at first employed. The term "company doctor" was one of which no surgeon was proud. When the employer was in the market for a doctor it was sufficient that the applicant had a license to practice. No further inquiry was made as to his qualifications, and from my experience I conclude that many employers now obtain the services of their doctors in a similar manner.

By the terms of the workmen's compensation acts in various States the duty of furnishing *necessary* medical and surgical treatment devolves upon the employer, and it does not suffice to employ a man who is not competent to give the *necessary* medical and surgical attention. Moreover, to furnish anything less than the best obtaina-

ble is economically wrong, because the cost of medical service in any serious case is an infinitesimal part of the amount the employer might be called upon to pay, and any case might develop into a serious case. It is not to be expected that the employer or an executive in a corporation is capable of passing upon the qualifications of applicants for the position of plant surgeon. In the very nature of things such an employer must either "go it blind" or rely upon the judgment of some person who knows as to the qualifications of his doctor. It is very certain, however, that if such a man were in need of a doctor for himself or a member of his family he would come pretty near making certain that the doctor he employed was qualified, and there is no real reason why he should employ a less capable physician or surgeon to look after his employees than he would to care for himself and family. Judging from what I know of industrial conditions in the State of Illinois there are very few employers who know where their doctor was graduated, whether he had an interneship in a first-class hospital or an assistantship under a competent surgeon; whether he is a man of tact and force; and whether he can handle men, not only employees, but members of the claim department, who, by the very nature of their occupation, must be suspicious of human nature in general as a rule. I do not mean this as a stigma in any sense of the word, but a good claim man must be "from Missouri" if he is a good man for his employer, even though fair-minded, and I have found that most claim men with whom I have come in contact are very fair-minded and willing to do what is right if the matter is presented to them properly by the medical profession.

The employment of a physician on this basis is a bad start, because he comes in contact with employees more personally than probably any other head of department except an operating superintendent. He must impress employees with his ability and his fairness if he is to win their confidence. He must not let himself be involved in the settlement of any claim as a claim adjuster; he must be the friend of the men from the time they come to him until the time they leave him, and inspire confidence in both the claim department and the men. It requires a rare degree of tact to convince an employee that the company doctor is interested only in his welfare and not in the settlement of his claim at the cheapest possible figure, and it is only when this has been well established in an industry that the company surgeon becomes valuable.

I recall one surgeon who took charge of a large industry which was perfectly controlled in its organization by the union, and within a year of the time he took charge he had also been elected official examiner for that union. This same man saved that company the first year of his employment $20,000 in the claim department in spite of the fact that the number of accidents increased 10 per cent over the year previous; and as against 31 lawsuits filed the year before he took charge there was one lawsuit filed the first year of his employment. In almost 10 years he was on the witness stand only twice for this corporation, and in both cases testified with such fairness and impartiality as to the man's condition that although in one case a $25,000 verdict was rendered against the company the attorneys for the plaintiff settled the case for $6,000, because they said

the medical testimony was so conclusive in their minds that they did not believe the case would stand appeal, and also said that they had been misled by medical men employed on the plaintiff's side of the case to believe that the man was hurt more seriously than it proved he was, and also because the reputation of the man acting as surgeon was too great to be combatted by ordinary medical testimony. Within two years from the time this man left the employ of this corporation there were three verdicts rendered against the corporation for injuries—one of $11,000, one of $18,000, and one of $24,000—not because the injuries were any more severe than many treated before this, but because the results were so eminently bad that all that was necessary was to show them to a jury. It would be hard to convince this company at this time that a man with small training was an economical man to employ.

It is because industrial surgery has been dragged in the mud for many years, neglected and abused, and the doctor made a part of the claim department, that men of large reputation will not as a rule take upon themselves the guidance of the medical work of a corporation, although the field is as much a specialty as treatment of eye and ear conditions; the general surgeon does not as a rule have the liking nor the mechanical ability to treat industrial cases. The orthopedist, on the other hand, as a rule has not had the surgical training, and surely industrial surgery involves acute surgical judgment as well as thorough knowledge of mechanics. Most men do not care about the treatment of fractures, and when it comes to the careful guidance which must be given recovery of injuries to tendons and ligaments they are not interested enough to go into the details of seeing that the man receives the proper treatment.

A well-equipped department of massage and electro and hydro therapy should be an adjunct of every large industrial surgical institution. Here we are up against the almost unsolvable problem of finding men who know how to give massage properly; who do not want to break down adhesions by force during the first treatment; who do not want to stretch muscles to the full limit at the first treatment; who know how to increase circulation, to reestablish elasticity in ligaments, to break up gradually adhesions in joints, to promote circulation and strength in muscles, to apply electrotherapy scientifically in the treatment of traumatisms to nerves, and to mobilize joints adjacent to fractured bones. We can find individuals who know one of these subjects, but the individual who knows how to apply all of them correctly is indeed a rare specimen.

I have advised massage in many cases and had the patient come back in a number of weeks without any improvement whatsoever, and upon inquiring into the kind of massage found that it consisted in the application of hot towels and the rubbing of the skin or else the other extreme of too much force, with its consequent setting up of traumatic inflammation by the too rapid breaking down of adhesions, which produces pain and swelling and inhibits the recovery rather than stimulates it.

The industrial surgeon must know, as well as surgery and mechanics of the human structures, how and when to apply these treatments, and must see that his subordinates perform their duties properly. As massage is given now it is a haphazard sort of treatment,

and certainly does not give us the results that it should under scientific management. We must have schools for the proper training of individuals for this branch of work if industrial surgery is to take its place in the ranks of specialties, where it belongs.

The question has been asked several times, "What can we gain by having a good surgeon oversee our work? Our work is so scattered that no one man can take care of all of it." This is the case in a great many instances where corporations have scattered branches. Judging from what has been accomplished, it would seem apparent that the surgeon who knows what may happen in a given industry can prepare a report blank which will cover all the essential facts and bring to him the information which he must have to judge whether a case is serious or liable to become serious, instead of leaving it to the man who has had a comparatively limited experience. For instance, construction work involves climbing on scaffolding and ladders, from which men fall. If a man weighing 160 pounds falls 20 feet and strikes the ground on his feet, it is a fair assumption that he has received not only a sprained ankle, but also probably a fracture of the os calcis of one or both feet, and, judging from the cases that come before the Illinois Industrial Commission, most fractures of the os calcis go undiagnosed until after the damage is done and repair is beyond possibility.

A fracture of the os calcis is a serious affair to a man who has to climb or walk, because in a large percentage of cases the heel is so carried upward and outward the plantar fascia is torn, the foot is pronated, callus forms between the os calcis and astragalus, and the man not only loses the lateral motion of his foot but has constant pain when walking or standing, from the pressure of the callus on the tendons running under the external malleolus. The plantar fascia being broken and the arch having lost its support, pronation becomes more complete as walking is tried, and the man has a foot which grows progressively worse with use and finally, in a large number of cases, he loses from 50 to 90 per cent of the use of his foot, which totally incapacitates him for any occupation that involves climbing, walking on scaffolding or uneven ground. If these cases are taken in time and properly treated, the major part of this disability can be averted, and the surgeon who prevents one of these disabilities saves on this case alone a considerable portion of his yearly salary, although it may be much better than the ordinary salary paid industrial surgeons.

Back injuries are some of the most serious with which we have to deal, and these injuries are practically never recognized by the surgeon who sees only a few scattered cases. They are called strains, and judging from past experience, most of these men are told to rest for a few days and return to work, adhesive plaster strapping or hot applications being used in the meantime. The competent industrial surgeon should be an expert on the diagnosis of injuries to the spine, and instead of allowing them to run along from week to week and from month to month the men should be brought before the surgeon in charge and proper treatment instituted before they become neurotics, which is not at all an unusual ending.

Shoulder injuries are probably as badly mistreated and poorly diagnosed as any other joint injuries. We have in the shoulder an in-

terlacing network of tendons which have an extremely poor leverage, with a number of bursæ, which are prone to develop inflammations with comparatively slight traumatisms. The usual treatment is immobilization with the arm at the side and the hand bound to the chest, which is the position of internal rotation. Adhesions quickly form around the shoulder structures, and when the arm is removed from its immobilization we find that we not only have to overcome the adhesions but we also have to overcome the force of gravity in order to lift the arm. This is a difficult thing to do inasmuch as the normal position of the arm is at the side, and even though massage is instituted, a half hour's massage treatment is a poor attempt at mobilization when the other 23½ hours of the day the patient's arm remains at his side in immobilization on account of the pain involved by motion. If the arm is properly put up at the time of the injury in external rotation and abduction, the muscles which raise the arm are all allowed to contract, whereas the muscles which pull the arm to the side assisting gravity are held on the stretch. When the patient's arm, then, is relieved from the fixation dressing the muscles which have the poorest leverage are the strongest and the muscles which have the greatest leverage are the weakest but are assisted by gravity in bringing the arm back to the normal position. In this way motion is quickly as well as almost painlessly reestablished.

These are only a few of the points that the good surgeon knows and points that are extremely important in getting a man back to normal. They are things which the inexperienced or careless surgeon does not know and does not do.

Allowing broken limbs to remain in fixation dressings for long periods of time is another thing that prolongs disability, and the chief complaint of patients coming before the board after fractures is that "they just let me lay there" and did nothing for me for weeks after the cast was removed. Everyone knows that a joint which has been immobilized for a number of weeks is a painful thing to move or rest weight upon. Even individuals of high mentality will not give themselves pain voluntarily and how can we expect individuals of the average mentality of the workingman to do something which others will not do. We say to a man, when we remove the cast from the fracture: "The bone is united, now you must use it." Very easily said, but not so easily done, because every time the patient tries to use it, it gives him acute pain. If the cast is kept on just long enough to allow healing and then removed each day for gentle, passive motion of the structures surrounding the joints above and below the fracture, these structures do not become hard and immovable; the circulation is kept up and the tone is kept up. There is little wonder that neurosis develops in many instances, because there is nothing done. If a man lies week after week with a painful member the habit of pain becomes very firmly fixed in his mind, especially if he feels he is being neglected by those whom he also feels are responsible for his injury. If, however, every day he is given a half hour's heat treatment of the injured member, followed by gentle massage which tends to reestablish the circulation and elasticity of the parts, he not only receives results on the injured member, but he feels that there is something being done to hurry his recovery. His mental attitude remains that of a man who is

friendly; he does not become morose, he does not feel abused; and when the pain becomes less severe he can be persuaded to use the member, to his own advantage. It is my opinion that disabilities following fractures can be cut down in time of recovery and in percentage of disability from 30 to 50 per cent by the proper and prompt use of massage and dry heat; and that neurosis cases will largely disappear when the doctor realizes his responsibility and the employer is willing to expend money for something which seems to him unnecessary, when he is employing a surgeon to take care of his employees.

The surgeon has not the training, nor has he the time if he is the right kind of a surgeon, to give massage treatments, and he should not be asked to do it, except the passive motions which are established early in the fracture cases, and these for the main part should be seen to by the surgeon so that no change in adjustment of the fractured bone will occur. It is hard for an employer to realize that all doctors have not the same qualifications, but if he is the right kind of an employer he will look into the qualifications of the surgeon who takes charge of his work as carefully as he looks into the qualifications of the superintendent of his production department and he will pay him a salary which is commensurate with the experience and training that he has had. He will not expect him to be a part of the claim department, but only a physician to his employees. No employer who is conscientious will employ a man to take care of his employees whom he would not employ to take care of his family, and it is a reflection upon the honesty of opinion of an employer that he employs one surgeon to care for his employees and another to care for himself and family. It has been my experience up to this time that most employers do not go to the company doctor when they themselves are ill, which would seem to indicate that their opinion is that any doctor will do for the workmen but they must have the best for themselves. If the employer is a good business man and looks into the subject thoroughly, I believe he will decide that the best doctor he can get, one who is specially trained in industrial work, who is a graduate of a good school, who has had an interneship in a first class hospital, who has had experience under a competent surgeon, or if possible has taken a special course in industrial surgery, is the best investment, because such a man will inspire confidence in the employees, smooth the way for amicable adjustment of claims, make a small percentage of disability where there may have been a large percentage, prevent disabilities where they are preventable, and save his salary every three months for any large employer of labor, to say nothing of the trouble which is saved to the human race which is brought about by disabilities.

The CHAIRMAN. I will call upon a gentleman who needs no introduction to this convention—Mr. Kingston, of Ontario.

ECONOMY OF PROPER MEDICAL TREATMENT.

BY GEORGE A. KINGSTON, COMMISSIONER, ONTARIO WORKMEN'S COMPENSATION BOARD.

The task of saying something at this convention on the economy of proper medical treatment in relation to compensation has been assigned to me by the program committee, and I accepted it with a good deal of hesitation because on such a subject one is sure to tramp on some one's toes. However, at whatever risk there may be in it, I will make a few suggestions. Perhaps after six years' observation in the field of workmen's compensation besides several years previously in the field of employer's liability insurance I may have some qualifications to speak on the subject.

One has only to stop and think that the question of medical service is something which has to be considered by some one in every one of the forty-five odd thousand cases handled in our jurisdiction in a year, and the same of course in every State and Province, to realize how intimately associated is this problem of medical aid with that of workmen's compensation. Even a saving of $5 per claim, if this could be effected by the exercise of a little greater care in medical treatment, would in the aggregate amount to an enormous sum.

Accidents divide themselves naturally into three classes: First, those in respect to which the employer has a more or less well equipped medical and surgical organization which looks after not only first aid but subsequent necessary attention until healing is complete. Second, those happening in an establishment where there is no medical organization whatever and where, when a man is hurt, an ambulance or carriage is called if he can not walk or travel alone, he is sent to the doctor or hospital for attention, the compensation board is notified, and the employer thereafter may or may not (too often the latter) show any special interest in him until he reports again as able to work. Third, that type of case which happens in a somewhat obscure manner. The employer possibly is not informed of it, the man goes home and is treated without much regard to precautions against infection, or possibly he first realizes that something has happened when the onset of infection or other trouble is noticed, and then he tries to think back and discover the cause.

The majority of accidents, of course, fall within the first two groups, but so far as the work of the compensation board is concerned, cases in the latter group give most trouble. It goes without saying that there is little to complain of as regards medical aid in cases falling within the first group and it is noticeable that a well-organized medical aid department in a big industrial establishment is able very substantially to reduce the number of cases requiring more than first aid.

Employees in packing houses are, in the nature of their work, peculiarly exposed to infection. One large packing house in Ontario during the first two or three years of our administration reported an unusually large number of such cases. Their attention was drawn

to it. Shortly after that the medical aid provisions of our law came into force and a resident doctor was added to the staff of the establishment referred to. The difference was remarkable. Nothing to my mind could better illustrate the importance of getting hold of these cases promptly and it is certain that infection must have been arrested in a large number of cases by quick action on the part of the doctor and his staff. The point I desire to make is that a resident doctor appreciates the importance of prompt and effective remedial measures, even in apparently trifling injuries. Here is where "a stitch in time" not only saves nine, but often ninety times nine.

The second group of cases has to do with the greatest number of employers. In most cases such employers probably feel that they have not a large enough establishment to warrant the expense of a resident physician, or even a first-aid department. Many of them, of course, have first-aid kits, but unless it is made the special duty of some one or two persons in the establishment to be in charge of such first-aid boxes and the point emphasized that those so charged should by special instruction qualify themselves as real first-aid men, it would probably be better in many cases that they did not attempt anything at all in the nature of a first-aid dressing except it be of the simplest nature.

Then comes of course the question of the doctor. Much has been written on the subject: Who shall have the choice of doctor, whether workman or employer? If the doctor is what he ought to be I am not much concerned as to whether he is chosen by the employer or the workman. In Ontario, the question of choice of doctor has given us very little trouble. There is no absolute right on either side in this matter of doctor choosing. If any controversy arises, the board settles it without reference to either party and the doctor so appointed is, of course, in the nature of a referee.

In most cases the doctor is actually the choice of the employer, but here possibly is where many doctors fail to appreciate their true position. Many of them feel that having been so chosen by either employer or workman they have thus acquired what for many years before the days of the modern medical aid provision under workmen's compensation laws had come to be regarded as a sort of professional vested interest in the injured workman. They do not recognize that under the law they are given a special status. Many of them do not realize that while owing every professional obligation to the injured workman they really are called upon to exercise quasi judicial functions. They should be just as fair and openminded in regard to their workmen patients as the members of the boards are expected to be in administering the law. If we find a doctor constantly acting as if he were holding a brief for his patients, we can have very little confidence in his judgment. Of course we want the doctor in charge of a case to express his frank and honest opinion, but the type of doctor we complain of is the man who can not and will not see both sides of the case. We had a case early this year of a prominent doctor in an Ontario city whom no one would ordinarily think of calling dishonest, yet this is what happened: A man was reported as being in a serious condition from gangrene, due, it was alleged, to a frozen foot. The employer reported frostbite, but the doctor, as soon as he saw the case—as we later learned—diag-

nosed it at once as senile gangrene. He spoke to the employer about the case and the latter, either through ignorance or a dishonest desire to help the man, gave the doctor the story of frostbite. The doctor thereupon completed his report on the case and gave us frostbite as the cause of the trouble. Some slight inconsistency in the reports led us to feel that the thing was not bona fide and we investigated. As soon as the doctor learned that one of our officials was making inquiries about the case he tried to square himself by writing the board that he was mistaken and that it was not a compensation-board case at all; that the trouble was not due to frostbite. That claim, had it been allowed, would have cost the accident fund seven or eight thousand dollars, because the man died, and I suppose had the doctor got away with the story and the claim been allowed he would have considered it clever. No doubt this doctor, like many another wrongdoer, probably did not stop to realize the seriousness of his act when he made the first false report.

The point I wish to emphasize in giving this illustration is the duty that medical men owe to the administration of the workmen's compensation laws. They are part of the administration machinery and it is important that they be just as honest and impartial as if they had the responsibility of actually awarding compensation.

This paper is supposed to be on the subject, "The economy of proper medical treatment." Perhaps in much of what I have been saying I have not followed the line which the program committee expected of me, but I have felt that fair and honest medical reports as an aid in administration will effect very great economy, and this in a financial sense is just as important as the most efficient medical aid rendered to the injured man. The average doctor—yes, I believe 99 per cent of the doctors bring the best skill of which they are capable to the aid of their patients, and this, at first at all events, quite without regard to where their professional fee is coming from; and it is to the credit of the profession before the days of workmen's compensation—and probably it is the case to some extent still—that much valuable time and most efficient services were rendered by physicians and surgeons in every jurisdiction with the certain knowledge in many cases that there would be no remuneration forthcoming. Now, however, under workmen's compensation laws things have changed. The doctor is necessarily made a part, and an important part, of the machinery of administration, but the laws were not made for his benefit. That is too often forgotten in his professional zeal. He is not the end, so to speak, but one of the means to the attainment of the law's clearly defined purposes, viz, the relief of the injured worker. Under most laws now full medical attention is provided for without any limitation except the judgment of the administering board. Payment of the doctor's fee is also provided. He gets paid now in every case coming under the law. Formerly he was lucky if he were paid anything. If an insurance company was on the case and there was liability or a suggestion of it, his fee would be included in the much-desired settlement and in such cases the fee was usually liberal. Under the practice that thus grew up, doctors—many of them at least—were spoiled, but the point I have thus digressed to emphasize is that taking the general average of doctors' fees paid in work cases, even though the scale may be

lower in some cases than the fees formerly paid, there is, I believe, much more money paid to the medical profession than was paid under the old practice. A few doctors at first were irritated because of the control over fees exercised by the board, but they soon came to realize that on the whole the allowances were fair; and after all why should not a doctor's bill be subject to the judgment of a taxing officer the same as an attorney's bill in ordinary legal practice? The doctor in a compensation case has a status and an exclusive privilege under the law and is just as much an officer under the law, and should be controlled by the law, as the lawyer is and should be who enjoys the exclusive benefit of the system of legal practice established by the law courts in this and every land.

I do not suppose there is need of much argument to convince those present at this convention of the importance in relation to this very important question of full medical aid as compared with the quarter or half way measures adopted by many jurisdictions at first. I have noted with much satisfaction that many jurisdictions are amending their laws in this respect, very largely, if not entirely, removing the old limitations. This is as it should be. Nothing can possibly be more economical from the point of view of compensation or the saving of unnecessary compensation than to bring the most effective remedial measures to bear so as to restore the injured worker to a working condition at the earliest possible moment and get him off the fund. Surely full medical aid is much more effective to this end than any halfway measure.

A simple illustration will emphasize this point. I know of a certain hill in my city up which heavy loads have to be constantly hauled. It was a killing job for a team to navigate it. The city, at the instance of the humane society, provided an extra team at the foot of the hill to help each load up. Would anyone argue that the city was performing any real service if the team helped the load only halfway up instead of going over the top? That is really in a sense what the jurisdiction is doing that helps the unfortunate worker only halfway up the hill to recovery, and it is surely the man who is carrying the heaviest load—that is, the man with the very severe injury and who consequently needs a lift most—who is left stranded in the middle of the hill. If the voice of this convention has any influence on the legislatures that are still backward in this important matter, I hope it will be raised with all the strength at its command.

My political economist friend, however, sees another point and it is probably not less important. That is, that every day the productive energy of a worker is checked by either total or partial disability the Nation suffers a distinct loss. He will give the exact figures in dollars to which such loss amounts. I can not do that, but it is not difficult to multiply a million men by one day, and in terms of days we have a million days' production lost to the Nation, if there should be during the year that many men each taking a day longer in recovery than is necessary. The doctor is really the key to this situation. If he is honest, and most of them are, he will see that the man is advised to get back to work at the earliest possible moment. A few doctors, however, in fact quite a few, are often indifferent or have a sordid notion that the longer they keep the man off work and under treatment the greater will be their fee.

Such doctors should be weeded out and not employed at all on compensation cases.

I have in the above rambling remarks touched on some of the matters that enter into the economics of the medical side of workmen's compensation laws. It is a very important side to the administration. The average doctor, I am sure, has a high sense of his professional duty and we must appreciate this. Our troubles, such as they are, however, are with the few whose mainspring and purpose in life is selfishness rather than service, and there should be no place for such a man within the portals of a well-ordered administration.

The CHAIRMAN. I am sure we all enjoyed the paper given by Mr. Kingston. I was very much interested in that part of it, that practice in Canada, where they have some kind of officer who graduates down the attorneys' fees. Some years ago I had a contest in court. I hired two lawyers—five of them volunteered—and happening to be successful in the contest, all of them filed accounts, and I wished then I had a taxing officer like they have in Canada.

Mr. CLARK. I would like to ask Mr. Kingston if in Canada they consider such a rating officer a good insurance risk?

Mr. KINGSTON. The last one we had lived to be 80 years old, I think.

The CHAIRMAN. The next speaker this afternoon you probably have all met. I take great pleasure in introducing to you our genial Dr. Gibbons, who will present the next paper.

ECONOMY OF PROPER MEDICAL TREATMENT.

BY DR. MORTON R. GIBBONS, MEDICAL DIRECTOR, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

That proper medical treatment is economical would seem to be axiomatic. Just how economical proper treatment is, to what degree it is economical, I am unable to state. I have a firm conviction, however, gained from a variety of sources, that over the methods of, say, five years ago, the present methods and those which are now considered essential, will result in a pecuniary saving of about 30 per cent and a physical saving to the injured of about 25 per cent. The California statistics do not afford material from which exact figures may be taken.

The following cases are illustrative of the economy of proper medical treatment:

Case No. 1.—This man called at the office of the industrial accident commission for a permanent disability rating. The permanent disability rating blank described a certain defect and loss of function, the result of an injury to the right femur and hip. It also drew attention to a former injury to the spine, sustained in 1916. The old records showed that this man had received a rating based upon a permanent total disability with reference to the spine. The physicians who had made out the blank describing the 1916 injury stated that the injured man would never be able to do any work except that which might be accomplished sitting in a chair. The more recent injury had occurred to the man in a fall from a scaffold 15 feet above the ground, while working on equal terms with other carpenters, able-bodied men. It is obvious that he had recovered from his spinal injury. The insurance company paid him indemnity based upon his permanent disability. The lesson drawn from this case is that it would have been economy for the insurance company to have secured a correct diagnosis and prognosis of the first injury.

Case No. 2.—A girl 20 years old chronologically, and about 14 years old mentally, received a double Colle's fracture by falling through a trapdoor. When she first called at the industrial accident commission it was with a request for permanent disability rating. Both of her hands were useless. She could not move her fingers. Her mental equipment, already insufficient, had failed to a degree which required that she be attended whenever she went away from home. She was totally unable to do any kind of work. It was suggested to the insurance company that she receive physiotherapy. I will say this was immediately after we had begun to know so much about this through its benefit in the Army. She was placed in the hands of a technician, who took in charge, not only her defect due to injury to her wrists, but the defect, a secondary product of her injury, in her mental condition. In the course of three months' time she had resumed work as a domestic and was receiving wages better

than those she was receiving at the time of the injury. Her hands had reached a stage of efficiency which precluded any indemnity whatever. The cost of indemnities and for treatment after the case came under our observation was $178. The cost which would have been entailed by a permanent disability rating when it was first requested would have been $2,138. There was a saving through proper medical treatment of $1,960.

Case No. 3.—The following letter was received by the industrial accident commission:

Subject: Mistake in diagnosis.

On March 27, 1916, I saw for the commission M. M. He was insured by the United States Fidelity & Guarantee Co. He had sustained a fracture of the right ankle.

I said: "This man has sustained one of the lesions which we group as a typical Pott's fracture. Function is bad now and will get worse with use, and ultimately be 75 to 90 per cent loss of function."

I advised an open operation with freshening of the fractured surface and subsequent building up of the inner side of the sole and heel, and applying an outside leg iron. In this way I expected the man to get well, with permanent loss of function not to exceed 25 per cent; he *might* receive 100 per cent of function.

None of these things which I recommended was employed and the man to-day has a somewhat deformed but perfectly good foot and ankle so far as function is concerned.

This report is peculiarly interesting because my own opinion was bolstered up by the records of the London police department. The man in question, I am told, was given a lump-sum settlement, and when that was spent, went back to work and got well.

The following points may be drawn from this confession, the confession of an orthopedic surgeon of San Francisco, who has done a great deal of work for the commission, and is considered to be a very estimable man—that very excellent surgeons, particularly orthopedists, are inclined to underrate nature's power to restore function and adapt functions to deformities. There is a tendency to operate too early, and I will say there is a tendency to operate too late. It requires exact judgment, after all, but there is a tendency to operate too early, thereby depriving the injured of an ultimate functional recovery and substituting a possibly more prompt disappearance of pain with an accepted disability.

This would, to-day, have been a "placement" case. The man should have been found employment suitable to his physical capacity, and he should have been permitted to forget his disability while cure was being effected.

There was no economy to the insurance company in giving a lump-sum settlement, since the man's ultimate disability was less than provided for in the indemnity. There was lack of economy to the injured man, since he was not found suitable work at which he could support himself as well as hasten his recovery, a thing which, by the way, he is ill-calculated to do for himself.

Case No. 4.—On the night of November 21, 1918, this man, while working over vats containing TNT, inhaled an unusual amount of the fumes. He became incapacitated, apparently with symptoms traceable to TNT poisoning. These conditions persisted and were augmented and complicated by certain symptoms of neurosis, aggravated partly by the attitude of the employer, who attempted to show that the man was not entitled to compensation, and that he was

indeed a malingerer. He was treated rather harshly. Since that time the employer has been required to take care of his injured employee, but the feeling has not been good, and despite recommendations to do so, suitable work has not been found for him. Within the last few weeks the employer appears to have experienced a change of heart in this matter, and is now seeking to place this man in an occupation suitable to his condition, and to restore his confidence in the employer and himself. They lost just two years in coming to the point. I think that lesson is obvious. Had the methods now being pursued been adopted early, almost two years of time would not have been wasted, with attendant loss to all concerned.

The law governing workmen's compensation in California requires that the employer shall furnish or pay for "such medical, surgical, and hospital treatment, including nursing, medicine, and surgical appliances, etc., as may be reasonably required to cure and relieve from the effects of injury."

Under the category of medical treatment, therefore, is included adequate psychological treatment which shall extend not only to the injured, but to his friends and family, and shall be incumbent, not only upon the surgeon, but upon the insurance adjusters, nurses, occupational and physical aides and instructors, and unions and friends, if possible. This is, in many cases, more necessary than surgical treatment. There should be efficient and prompt first aid, efficient hospital care, efficient and properly directed occupational therapy. The corollary to this is, that there should be proper discipline of the injured himself.

There should be employment of "placement" bureaus. There should be a convalescent farm connected with the industrial accident commission the scope of whose work extends as far as does that of the California commission. There should be available technical schools, or in place of "placement" bureaus, convalescent farms, or technical schools, there should be convalescent departments in employers' industrial plants, where the employers may handle, employ, and reeducate their own injured. The number temporarily partially incapacitated is many times greater than that permanently partially incapacitated.

"For Satan finds some mischief still, for idle hands to do," must have been written with the thought of the industrially injured. Every injured workman should have his full time occupied as far as practicable, or as far as such occupation will physically be harmless to himself. This occupation should be turned to the advantage of the injured. In California the most that an injured man may receive in indemnity is $20.83 a week. Many families can not live on this. The injured man should have as his right provision made for extra earnings during his convalescence. It would shorten his convalescence, improve end results, eliminate a majority of neuroses, and would be pecuniarily economical. This thing has been done. I know of a plant in San Francisco, employing in four branches something like 7,000 operatives, where the injured go back to work the same day they are hurt if they are able to walk. And it is the habit and custom in that plant, and has been for 14 years that I know of. Nobody thinks of doing otherwise. They go back on the job. They may not be able to work, but they are paid for the time

they are there. If one hand is out of commission, they are sorting papers with the other hand, and so on.

Proper economy in medical treatment concentrates in efficient surgery, study of human nature, occupation of the injured, and provision for augmenting the indemnity through personal industry. I believe that occupation of the injured worker's time through convalescence, with opportunity for him to earn money for effort made, is one of the most valuable elements in economical medical treatment, and one of the most neglected.

DISCUSSION.

The CHAIRMAN. This subject is now open to discussion, which will be led by Dr. Donald Maclean, chief medical adviser, Nevada Industrial Commission.

Dr. MACLEAN. I will have to take issue with my friend, Mr. Kingston, in the first place in regard to economy in medical treatment, bringing it down to a question of dollars and cents. It is not a question of dollars and cents, and the sooner the industrial commissions get away from the idea of saving a dollar here or there, the better off they will be. The thing is to get the man well and satisfied. You take a man who is injured, I don't care what the injury is, and there is a mental factor. You can cure him, set a broken leg, but still he has a feeling of self-sympathy and you can not count it in dollars and cents. If you go to a lawyer, the first thing he wants is a retainer. Who ever heard of a doctor wanting a retainer? Take a man in a desperate condition to a doctor and he gives the best service he can, and charges what he is entitled to, or what he can get. The first thing a lawyer says is, "I will have to have a retainer."

As to the honesty of doctors, I think we believe nearly all doctors are as honest as other people. I don't see why we can't impress on the average doctor that his business and profession depend on his reputation. If he wants the reputation of curing people, getting them well, his reputation is greatly enhanced, and it redounds to his credit, when he does. I believe there are doctors who hold men on week after week and month after month, when there should be no need. They will have the men come to their offices and they will say, "How are you?" and they will either mark or will have their office girl mark down the charge against them. It happens with us occasionally. We have had it come to our attention, but it is the exception and not among the better grade of men.

So you can not figure the question of dollars and cents when it comes to the question of medical aid. It is a question of getting the man well, getting his confidence and getting him where he believes himself to be just as well as ever, and then of turning him back to work. That's the main thing. It is not a question of dollars, $5 a case, or $10 a case. It may cost commissions more money to restore a man to normal—a question of high-class experts or specialists—than it would be to settle with him for the disability he has sustained. You can perhaps figure a man's disability under the law, as it may be, at $1,200 or $1,500, and maybe it will cost $2,000 or $2,500 to restore him to his normal condition by placing him in the hands of a specialist, but the extra money is extraordinarily well spent.

Dr. Gibbons has covered so many things in which I am interested. One thing that impresses me very much is having the man back at some kind of work at the earliest moment possible. We of Nevada try to find something he can take up, with the employer of course. There are so few large industries and we know nearly everybody in the State, and it is easy to write a letter or take it up with the employer by phone and say, "Find this man some sort of a job and put him back to work." In most instances we meet with success. But that is the big thing, getting the man back into the habit of work, keeping him not only at work, but surrounded by workers so that he has the incentive and the encouragement of keeping up with the men with whom he is associated daily. Further than that is the point that if you leave him at home, he perhaps has little fusses with his wife, and the children annoy him, and he gets nervous and irritable, and he goes outside for sympathy or for amusement and loses his touch with workingmen, or the idea of his own work; or he gets too much sympathy—his wife tells him he will be a cripple, or his brother or his friends tell him he will be crippled for life, and then he gets the idea he is crippled.

That's the main thing in Dr. Gibbons' paper, getting a man back to work, the economy of medical treatment. You can not, in our opinion, do too much for a man, provided you know that what is being done for him is really accomplishing something. If you can correct a deformity, even though the deformity may not be a functional deformity—the man may be able to walk as well with the leg crooked, one of the bones out of shape, as if it were set perfectly, but he knows the deformity is there, and it makes an impression on him—if you can send him to an orthopedic specialist and have that corrected you have gained an immense amount of ground. The man is satisfied, and his friends are. The economy of expert medical treatment of all kinds is unlimited. You can not say exactly how much you gain by it.

With physiotherapy and rehabilitation methods we have had little or no experience in Nevada. Our cases must come here to California. But it is work that is going to grow immensely, as it is the biggest field in industrial surgery in the world. Take a man in the mines, who receives some sort of an injury; he can not go back into the mines to work. You get your indefinite back injuries and joint injuries and things of that kind. You have to find a method of getting some occupation for that man. Our industries are so limited in Nevada, it is a hard thing to do. We want to arrange some way to send them to the other States. Give them all the compensation they are entitled to, but find something that will put them to work. The truth of the matter is that the work of industrial surgeons and commissions is only in its infancy and has not accomplished half that may be accomplished through the methods of rehabilitation and physiotherapy and finding out for what a man is fitted.

Part of medical economy, it seems to me, is the matter of physical examination for all employees. If I was running a big plant of any kind whatever, any man that worked for me would be examined physically, and he would be thoroughly examined by a man in whom I had confidence, and every slightest defect would be corrected. I would see that he did not have bad teeth and an infected nose and infected throat, but that every member was in the best physical shape

possible. In the end it will pay a man immensely. When a man gets a wrenched back or dislocated shoulder or joint, six weeks after the time it occurred he comes back and you say, "You are all right. Go to work." He says, "I have a stiff joint. I can't move it." Along comes a doctor and says, "That's true. He has arthritis, has infected teeth, infected tonsils." All those things would be avoided if the employer had the proper system of medical examination, and saw to it that the employees were properly fixed up before they were allowed to go to work at all. That does not say the cripples, men not in good health, should not have occupations. Everything should be done to put them in the best physical condition possible before you put them to work. A stitch in time will save many hundreds of other stitches.

California is situated differently from most States. It has a wonderful climate, and that helps a good deal. It does not have the rigorous climate some of the other States have to contend with. California has done more along the workmen's compensation line, their methods are more scientific, than other States, I think. They have more men to work with, larger funds, and I think work along the lines suggested by Dr. Gibbons, taken up by California, will eventually be taken up by the other States.

The CHAIRMAN. Mr. Fred W. Llewellyn, of the Washington Industrial Insurance Department.

Mr. FRED W. LLEWELLYN, commissioner, Washington Industrial Insurance Department. On this subject I necessarily speak from the viewpoint of the layman and perhaps also under the handicap of a very limited knowledge of the laws of jurisdictions other than that of the State of Washington. Of course it requires very little thought for anyone, even the layman, to realize the importance of proper medical aid and treatment in these cases, and the economy which must necessarily result from it to the advantage of all concerned. For the injured workman, of course, it means an earlier return to his normal earning power, to say nothing of the minimization of his period of suffering and reduced permanent disability. For the employer, it means conservation of his labor supply and reduced cost of production; and the general public, who must ultimately sustain the pecuniary cost of industrial accidents, gains by that in the lower cost of commodities. I can not agree that the pecuniary side of it is not to be taken into account, because while we do not want to emphasize saving dollars in the matter of a comparison with life and limb and time and suffering, nevertheless, by considering that side of it we can perhaps get some idea also of the actual amount of saving on the side of life and limb and suffering.

While I had these points pretty well in mind before the subject was proposed for discussion, nevertheless I was somewhat surprised at the ease with which we were able in the Washington commission to pick out of our recent experience case after case in which poor treatment had resulted in losses to the fund of from $500 to $1,500, money in excess of what the cost should have been. In a very hasty survey of our experience for the past few months, we discovered about 30 such cases, involving an aggregate waste of approximately $20,000 for medical treatment and compensation, without mentioning

other consequences. I want to cite just a few of those cases as an illustration of this point before I go further.

In one of our recent cases, involving a broken leg, the attending physician had reported a simple fracture considerably above the knee. Later, when the man appeared before our own examining surgeon, it was discovered that the fracture had extended into the knee joint, a fact which had completely escaped the doctor in attendance. The man was returned for further treatment, with every probability that on account of the delay there can be no very satisfactory result. It is estimated that this blunder will cost the fund about $1,500, and you can judge from that what it is going to cost the man.

In another case, involving severe and extensive third-degree burns, the attending physician had fumbled along for a year without any attempt at skin grafting, something which the surgeons tell us was indicated from the very first. Noting the long-continued time loss our medical aid department investigated, discovered the situation, and promptly transferred the case. The man was skin-grafted and went back to work within a month. We were out about $1,000 in excess medical-aid bills and compensation in that case; and I don't cite that figure for consideration alone. That indicates to your minds, perhaps, the cost to that man, the suffering that he had to endure during that period.

Another case was reported by the attending physician and I quote his language: "Very bad bruise and sprain. No fracture." The patient was put to bed with hot compresses, and that's all. What the man really had was a severe pelvic fracture, not discovered until long afterward. There was a very poor result, calling for a permanent partial disability award of $1,500, after a long time loss and expensive reconstructive treatment. Here we figure a direct loss to the fund of more than $1,000, chargeable to gross negligence.

One more case is enough. In this case it was a fracture of the four metacarpals of the right hand. Due to miserably crude surgical methods, there was no reduction. The man will carry through life a claw instead of a hand, and the fund is out more than $1,000 in excess of the usual cost of such a case.

Now, the cases that I examined were about 30 in number, involving adjustments during the last six months in our State; and as nearly as we could estimate, of course roughly, those cases cost the fund $20,000 in excess of what they should have cost it. They seem to fall into three classes from a layman's viewpoint: Those in which some trivial injury does not receive proper first aid, and serious consequences follow; those in which the attending physician in his diagnosis overlooks some serious feature of the injury; and those in which, while appearing to have realized the condition, the surgeon, through ignorance or carelessness, has adopted poor surgical methods. Of course the administrative question arises, "What are you going to do about it?" It does no good to consider these things unless you evolve some constructive plan for taking care of them in the future. The only thing I know of, in the case of lack of first aid, that might be done is what we are trying to do in Washington in the matter of compelling employers to install first-aid appliances at all places where important operations are in progress and to train their employees in first-aid treatment. If there is anything further that can be done, I would be glad to have some of the doctors suggest it.

Now, as to the other cases, which are all chargeable apparently to poor doctoring, it is, of course, a medical question. The medical profession should solve that for themselves, and I am inclined to agree with Dr. Donoghue somewhat, when he said yesterday that we can not have a supersurgeon in the sense in which he used that term—that is, some one who will attempt to prescribe in detail medical treatment in all cases; but I do believe that the conditions can be met, at least partially, by a closer supervision by the State medical authorities over the treatment—such a supervision as will enable them to detect early in the game a wrong diagnosis or any serious fault in the treatment such as would be recognized generally by the profession to be a serious fault. In our State we are going to ask the legislature to give us additional medical personnel in the department, so that we can follow more closely those cases and try to catch them before it is too late. It does no good to find a man crippled for life six or eight months after his injury. You can perhaps do some reconstructive work, but the doctors tell me that in most cases with bone injuries it is impossible to get good results. Also we are going to get some additional authority in the law that will enable us more arbitrarily to intervene in a case where some poor doctor is obviously ruining the case. I don't think that that means having a supersurgeon in charge, either. It means having a supervisory surgeon, with some chance to get at these cases before it is too late. It certainly is a subject which is worthy of our serious consideration, and I have already derived some very useful ideas, for which I wish to thank the gentlemen who have already spoken.

The CHAIRMAN. The discussion will be continued by Commissioner John P. Gardiner, of the Minnesota Department of Labor and Industries.

Mr. GARDINER. I have been very greatly impressed with the illustrations given by Dr. Magnuson as to the way in which the best grade of medical care would result in conditions of the utmost benefit to all concerned. The observation of facts like these, and constant emphasis given them by the administrative compensation authorities, is at least a start in the direction of establishing higher standards. The types of cases which he cites have been familiar to us in Minnesota and have been under question as causing disproportionate disabilities, but we did not have the facilities to have such a keen analysis made of them as Dr. Magnuson has presented. I was especially interested in what he said about the os calcis cases, as they account for a considerable portion of the foot impairments. While accidents resulting in total temporary disability are a loss to the men and to the employer, the matter is still more serious when a permanent loss of function results. It is a truism that no compensation can adequately offset a considerable physical impairment that a workingman must carry with him the rest of his life.

Dr. Magnuson's discussion of the proper treatment for broken limbs likewise struck me as being especially valuable. No one can be in a position where he comes in contact with many compensation cases without meeting numbers of injured workingmen who are carrying permanent impairments as a result of fractured limbs, and whose disabilities are of such a nature that a person wonders if such results are the best that modern medical science can secure.

The neurosis case, too, the type where the man has an obsession that he can not use the injured member, and that the doctor, insurance company, and the State are in a conspiracy to ill-treat him, is such a frequent experience in compensation administration that suggestions for its reduction should be welcomed. This one step, attacking the evils that follow the retention of broken limbs for too long a period in fixation dressings, would be worthy of an intensive campaign under expert auspices by a compensation agency.

The constructive developments pointed out by Dr. Magnuson are also worthy of further and careful attention. The next few years should show a great increase in the facilities available for massage, electrotherapy, and hydrotherapy. Some means must be found of securing an adequate supply of those rare persons who know how to administer massage properly. I am glad that Dr. Magnuson did not limit his suggestions to the sort of medical service that can be given by a large industry. It is certainly time that employers whose activities are not localized in any one place should find it possible to provide high-grade medical service. The detailed medical report mentioned by Dr. Magnuson should be a good plan for meeting this situation.

I think that Mr. Kingston has touched upon a very important point in connection with the medical service when he lays emphasis upon the fact that a doctor in a compensation case has a quasi-judicial function. He must not consider himself a partisan of the employer nor of the workingman. His certificate in a case should be absolutely fair and impartial, just as much so as a commissioner's or a court's findings. Dr. Magnuson touches on the same point when he declares that a physician should not be a part of the claim department. Consideration of this fact requires that we should consider the meaning of this expression, "Economy of proper medical treatment." I take it that by this expression is meant economy in a broad sense, economy not so much to the employer, not even absolutely to the employee, but to the public interest, to the State. It sounds axiomatic to say that the best medical treatment is in the long run the most economical. However, when one considers that it is entirely possible for an employer who takes the financial viewpoint only to hire the cheapest medical service and by unjust ratings and illiberal certificates on the part of a subservient medical employee escape with a low cost, it will be seen that our thesis is not so axiomatic as it appears. A similar situation exists with regard to the amputation cases in States which compensate by a specific schedule without provision for a healing period. There is no immediate financial inducement to the employer to furnish the best medical care. To illustrate, if a workingman's hand is cut off, and the law provides 150 weeks' compensation, regardless of any healing period, it is impossible to point out any particular financial saving that will result from the employer providing the man with best grade service and insuring the restoration of the injured member to the best possible condition. In the case of an impairment there would clearly be such a financial incentive, if it were not for the looseness of the rating situation, the possibility of an unfair rating by a partisan doctor.

These facts are adduced not in any way to discredit the thought that it is to the employer's interest to provide high-grade medical care. I merely wish to point out that the ultimate economy is really

to the State in preserving the workers in the greatest efficiency. A conscientious employer will, no doubt, find it economical in a large sense to fulfill completely his obligation under the law. He will find that it pays returns in the good will of his employees, as well as in money. In a still larger sense, which is becoming more perceptible in these days of a contracted labor market, it is to the interest of all employers to preserve the existing labor supply in a sound condition. But I do not believe that the argument for high-grade medical service needs to be based chiefly upon economy. It is a matter of public interest, and I believe that so many employers or insurers are disposed to provide the care contemplated by the law that the problem of making it universal is merely one of adequate supervision, so that no short-sighted employer or insurer may be enabled to get the advantage of the others. I feel that this must be the line of progress in connection with medical treatment.

Many States have had their attention until recently fixed upon the necessity for removing the arbitrary limits upon medical care. This is rapidly being done, and there is now a very large group of States which give practically complete care. In Minnesota we adopted such an amendment in 1919, and the past year has shown, we believe, very marked improvement under the new law. The next step must be such supervision on the part of the State as will eliminate entirely the notion that the doctor is the partisan of either the employer or the employee. That will insure in every case that there be no needless delay in recovery and that impairments be kept as low as the progress of medical science warrants. We do not want State medicine. We do not want employers to be gouged for unreasonable fees by medical practitioners. We do not want employees to receive inadequate care. Within these lines there is ample room for experiment in the various jurisdictions, and at each succeeding meeting of the International Association in the next few years there should be valuable information to interchange.

I have wondered quite often how many employers go to the trouble, after an injured employee has returned to work, of looking into his case and finding out how he is getting along.

As an illustration of a case of what I consider unsound economy: A case came to our attention in the last few months in Minnesota where a man employed in one of the large industrial plants—a self-insurer, by the way—was struck in the stomach by what is called a jack hammer. The company's doctor was called to examine the man, who was first taken to the improvised hospital. The temperature was about 20° below zero at the time, and the man was in a state of shock from pain. The doctor made a superficial examination; there were no external indications of any serious injury, and the doctor ordered the man taken home, which was done by the superintendent in his own car, the instructions from the doctor being, "If you get any worse, or suffer any serious pain, why you call me." The man reached his home about 10.30, and about noon he said to his wife, "For God's sake, call a doctor. I believe I am going to die." The frame of mind that his wife was in, of course, did not give her a chance to or she did not think, even if she had known, that it was the rule to call the company doctor; but she wanted to get a doctor there quick, and here is where I give credit to the

doctor who came there, all the credit in the world. She called the first doctor she could think of. He came and examined the man who was suffering, without any regard or any questions being asked as to "Who is going to pay me?" He started to work on that man and reached the conclusion that an immediate operation was necessary to save the man's life. He asked who his employer was, and his wife told him. He called up the employer's office and got in touch with the man who takes care of adjustments under the compensation, and told him what the situation was. The representative of the company said, "All right, Doctor, you take him to the hospital. Call an ambulance and take him to the hospital and we will pay the bill; but our doctor will be at the hospital when the ambulance arrives." The ambulance arrived at the hospital at 12.40. The doctors then prepared the injured man for the operation, and at the time the company doctor got there, about one hour later, or 1.40, they were all ready to perform the operation, and I suppose, as a matter of professional courtesy more than anything else, the doctor that had been called by the injured man's wife said, "Of course, I understand you represent the company in this case, but the wife of this man seems to want us"—the two doctors on the job to perform the operation were brothers—"but if you insist, of course we will withdraw from the case." The doctor said, "That's all right. Go ahead." They had delayed the operation sufficiently long to acquaint the company's doctor with the diagnosis that they had made, and he agreed with them it was correct.

Now, the man got well and he went back to work, and this is the point that I want to make here of unsound economy in this case. After he got back to work he was entitled, of course, to all his indemnity during his disability, to the maximum of $12 per week at that time. He refused to accept compensation in the weekly installments from the company until the company agreed to pay the doctor who had performed that operation. The company technically stood on its rights under the law that where the company doctor is available and proffered, and there ready to do the work, and another doctor was called in, the injured man must pay that bill himself. Technically it was right, but economically it was wrong. Morally it was wrong. This was an emergency case and needed prompt attention. Well, the statute of limitations had just about run when the man came to us with his case. We advised him, of course, to go ahead and accept compensation in the regular way and leave the matter of the doctor bill to be settled some time later. We didn't want him to waive his rights. We called in the representatives of the company and we pointed out to them and told them that they were theoretically and technically right, but they were wrong in this respect. Now, by that operation and by that doctor responding promptly to the call, without any consideration of where his fees were coming from, that man's life was saved, thereby eliminating from their fund the responsibility or the duty to pay compensation to his widow for 300 weeks, or during dependency, at the rate of a maximum of $12 a week, and the bill of the doctor was $250. They claimed that it was excessive. Whether it was or not I don't know, but the fact is that that man's life was saved, and I say their attitude was economically unsound.

As I said before, I have often wondered, in the number of industrial accidents that occur in the different plants in any State, how often the employer, directly or indirectly, after an injured man returns to work—after the disability period is over and he returns to work—how many employers, directly or indirectly, make it their business to go and ask the injured man how he is, whether he got the proper attention, or whether he has received his compensation due him from the insurance company. I think that there is a point there from the human side of it, human technique, that every employer should follow more than he does. The trouble is, in this great big hustle and bustle of industry he gets away from human technique. There is the mere mechanical technique between employer and employee. It is the milk of human kindness on this side of the question that restores—if confidence has been lost—that confidence between employer and employee.

The CHAIRMAN. It is now only 4.10, and I think probably there are others who would like to discuss this subject, so we will open this subject for general discussion.

Mr. SMITH. The remarks made by Mr. Llewellyn relative to supervision of medical treatment strike me as being as important as any subject heretofore discussed under the head of medical problems. The discussion so far seems to have followed the line of rating disabilities, of finished results, the end results. It is possible that in the States which have insurance companies and self-insurers it is difficult for a commission to learn the true facts in a case, or to look over the great number of cases which come to them to find out whether the doctors handling the cases are following the proper procedure.

We have been perhaps a little bold in Nevada in requiring an immediate and thorough report of every industrial accident from the attending physician. It enables our medical adviser to visualize the injury and to point out in time instances where the technique might be changed to the advantage of the man.

Dr. Thompson is perhaps the only one so far who has been bold enough to say that his commission, that in the State of Oregon, has prohibited the use of the Lane plate. Whether right or wrong I am not prepared to say, but the fact that the Oregon board has taken this up shows, I believe, a step in the right direction. The Washington commission also has sent circulars around in which it points out the proper way of putting up Pott's and other fractures, the aim being to keep down the partial disability to the absolute minimum. It seems to me that the commission might take the position that it is the friend of the injured man, and that the doctors in some of the smaller communities are not in a position or do not have a varied enough practice to know how properly to put up every case. Possibly these doctors learned how in the institution which they attended; but certainly medical practice has improved since then, and even a mediocre medical adviser who comes in contact with a great number of cases can offer them certain suggestions. They need not be supermedical men, such as indicated by Dr. Donoghue, but, as I say, with even medium ability, a great deal can be done, and I had hoped the discussion on medical systems and economy of proper

treatment would indicate how far the other commissions had gone in that particularly.

Mr. PILLSBURY. This is a problem that interests me very greatly, and has for nine years. In my judgment there are many Californians sleeping under 4 feet of earth who need not have been there if their cases had been adequately handled in the first instance. We have in the State many hundreds of men who will go through life crippled, who need not have done so if they had had adequate treatment in the first instance. I do not know where to get adequate treatment in California for the cases that we have. We have splendid physicians; we have excellent surgeons; but we have not the things that go with them—and then we have a great many very poor doctors; we have a good many very careless doctors; we have a good many doctors with very slight experience. Now, I have an idea that, other things being equal, the doctor who has a definite kind of a case to handle once a month stands about one-thirtieth of the chance of being able to handle it adequately that one who has such a case every day to handle has. I think this work has to gravitate into the hands of those who make themselves fit, who learn by doing—and that is about the only way we learn much—by making a specialty of this kind of work. But suppose the man has a good surgeon, and he performs an operation, he sets a limb, and puts it in splints, and then tells the man to use his limb, though the surgeon knows he won't. The man knows it will hurt, and he won't use it as long as it hurts, and it won't stop hurting until he does use it.

We have begun tentatively, in a few instances here and there, to do a little something along the cooperative line. A man has an injured ankle, with a tendency to ankylosis. We put him up on a false bicycle, jacked up from the floor, and tell him to kick. Well, it is pretty sober business, it does not enthuse; but if you could say, "Take this message to San Mateo and bring me an answer, and tell me what you see along the road," then you would get some benefit besides mere mechanics.

Now, I have in my own mind what I would like to see. I would like to see a hospital given up to this kind of work, what we call industrial medicine, industrial surgery, with very capable people, a capable staff, experienced in the work and learning every day, and capable nurses. I would then have bedside industries, the things that such men can do to occupy their minds, so they will not be lying there and counting the flies on the ceiling and thinking about their homes and troubles and the outlook, or lack of outlook, for them.

I would not consider they were getting adequate treatment if they did not have that to start with. And just a little ways outside, so that the hospital will be outside of the noise, I would have shops where the men could do real work as soon as they could be trundled out there in wheel chairs—something that would occupy their minds, keep them busy, and start those who need it in the direction of an occupation suited to their condition. I would have the rehabilitation and reeducation work take hold right there, or, if possible, take hold as soon as the man could be propped up in bed and begin to use his hands and mind on something, and I would never let go of him until he was placed somewhere in industry. The best that medical and surgical science can do toward restoring a man to

the condition he was in before he was hurt is the best compensation he can have, and we have not been equipped to do that. We are not yet equipped, but we are making a beginning along that line. We are doing something.

This mechanotherapy is not a new thing. Some 15 years ago I made a trip east for the State, to get in touch with their institutions. I was outside man for the governor here, to visit the institutions and study the institutional life and compare it with the institutions in other States. I found that the best way of curing a hurt mind, the best means of restoring sanity was work—work in the field, work in the shop, work anywhere to get the mind focused on some kind of business. I remember visiting a big institution in Massachusetts, where they showed me a sanity room, and I said to the superintendent, "Is this any better than work?" And he laughed and said "No." He said, "My patients, their relatives are too rich, and if I put them to work they would be horrified, and there would be a great deal of trouble." He said, "It would be better to have them out digging and planting and hoeing than going through this performance, but this is better than nothing. I can not make them work, but I can get them to do this, and it helps." But that was all there was to it.

Now, we have got to get this thing going, from start to finish. The start is as soon as the men can be propped up in bed, after they come out from under the anesthetic and before their minds begin to turn in like an ingrowing toenail that festers and maturates and gets in further and further, and digs in and in. We have got to make the mind turn out and look out, and if it is going to look out, it must have something to look at, something in the way of hopefulness. And some time or other, if we can not get it any other way, in my judgment the fund will construct a hospital where this work will begin with bedside industry and then continue in shops, and which, as soon as a man can get out of the shop there and into his own shop to do something, will get him there. I think that's the problem, and to work that problem out the work must be centralized. We can not know about 6,000 or 8,000 practitioners in this State, and I am very much opposed to letting the injured man select his own physician, for of all the things in the world that people have almost no sense about it is doctors.

I want to say that, in my judgment, after my experience in reading testimony and all that, you can find 49 doctors who can give the right treatment and obtain the right results if the fiftieth man will only tell them just what the matter is, will put his finger on the point where the trouble is. There is a subtle quality in the mind—it is observation, a keenness of observation, being mentally able to profit by experience, almost womanly intuition, you might call it—that enables the diagnostician to put his finger on the trouble and say, "That's what's the matter with this man." Now, that's the man we want, and I used to advise the insurance companies, "If you can't afford to hire the best, get the best diagnostician and find out what the trouble is, and then you can use second, third, or fourth class men in a pretty good way. But don't let them do any diagnosing. They will make bad work for you." Now, I think that is the direction that this work must take, and I would like to see California lead. Our big uni-

versities have been slow. We have been at them, and they are doing something, and there are some of the private enterprises doing something, but it is only something.

Just one more thought; there has not been much said about traumatic neurosis. I guess the less said about it the better. Nobody knows what to do about it, but it is a pest. It troubles us a great deal. I think most of that neurosis comes from the want of just exactly the treatment that I have outlined, and that we will prevent nine-tenths of it if we can get that treatment, or something similar. I won't be accurate as to percentage, but we have had very serious neurosis from slight injuries, and when you say, as most of the doctors have said, "Settle it. That will cure them," it does not do it. Once in a while it does, but our experience shows it does not. You can't depend upon it. We had a man that had traumatic neurosis, and he had it two years after the last compensation was paid, and still had it as bad as ever. These men get fixed ideas in their heads.

I have got in my head what I want to see. I want 40 acres of good land in some nice little valley, with shops and a little hospital, and live things all around in the fields, cows and pigs and chickens and horses, and a shop to work in in bad weather, and then have in the hospital some good neurologist and a staff which knows how to get near to people, can get their confidence, get hold of what I call the raveling end of the thread, and by and by unfix that fixed idea. In the meantime, if these men could earn something there themselves, have their own garden and something else, and be able to be paid something for what they do, well and good, so much the better; but I think we have got to have the hospital and the bedside industries and the shop and the home of recovery. Then I think we will have done about all that we can do toward giving the best compensation that society can afford, i. e., the best medical, surgical, and after-treatment, to return the man as nearly as possible to the condition he was in before he was hurt.

Dr. JAMES J. DONOHUE, commissioner, Connecticut Board of Compensation Commissioners. I am naturally interested in this discussion, as the State of Connecticut, I think, was one of the pioneer States in establishing unlimited medical service. I can't quite agree with the last speaker, though, on the question of traumatic neurosis, because I think frequently to settle the case does a lot of good, and in looking over some of the Swiss and some of the old German statistics, there the lump-sum settlement was one of the most curative agents they had in disposing of a great many of the neurotic cases. Dr. Gibbons made a remark also which impressed me quite forcibly—that is, that the orthopedic specialist, the orthopedic surgeon, is very liable to forget that Mother Nature is probably a better surgeon than any of us, and the orthopedic surgeon will in a great many cases operate where I think if the case was let alone no operation would be necessary and you would get practically just as good results. For instance, one of the annoying injuries which we run against—I guess you all meet it—is the broken astragalus. That is the flat bone on which the tibia and the fibula rest. There is an operation performed by the orthopedic surgeons which takes that out and it sometimes gives very good results; but I have seen a great many of those cases without any operation, without astragalectomy

being done, and the results are really better than by astragalectomy. Of course, if the bone is smashed, the best thing to do is to take it out, but I think the orthopedic surgeon is inclined to step in and do work sometimes which really nature will do much better and equally as rapidly.

Of course we have the unprincipled surgeon and the unprincipled doctor—we have to contend with them in compensation—but I think the average medical man will measure up with the human race generally. I am rather inclined to favor to a certain extent the selection of a physician by the injured employee. It does not seem sensible in all cases, but there is a lot of merit in it. People after all have a good deal of common sense. You take the average fellow, you think he doesn't know much of anything, but when it comes to sickness and injury he knows considerable. After he has tried a certain doctor for a while and he doesn't get very good results he has a habit of firing him and giving the other fellow a trial, which is very sensible. I know I never feel badly if I happen to take a case and don't have success in a reasonable time and the patient drops me and gets the other fellow. I feel perfectly satisfied. If the surgeon doesn't get fairly prompt results, I think it is pretty good sense on the part of the patient to drop the surgeon, no matter what his standing, and try the other fellow. It is pretty sensible. Of course it seems rather radical for a physician to say that, but nevertheless I feel that way.

The gentleman from Minnesota was speaking of a case—I suppose it was a ruptured intestine—he had to deal with, and the lady called in her own physician——

Mr. GARDINER. It wasn't her own physician. It was the first one she could think of.

Dr. DONOHUE. Let's call it her own. We will presume he was a good one. In our State we have the law so framed that in a case of that kind if the injured calls in a physician, either his own or the first one he can get, and there is knowledge on the part of the employer that the man was injured, then he can't order a change without taking the matter up with the commission, and it strikes me that is a reasonable position to take, because I don't think it is always for the best interest of the patient to have different physicians tampering with the case. I think it is a reasonable situation, and, while we may not exercise such authority very frequently, still it is one that is used.

Dr. DONOGHUE. I want to apologize for taking up any more time on medical subjects. Hearing from these men out here where they are closer to nature than we are, dealing with vast distances, they give us some ideas we would like to think over a little, and perhaps we would like to check up some of them.

Mr. Llewellyn, of Washington, has quoted you some cases. He quotes them in a sketchy way, but he gives certain things, and I think he makes the mistake that the layman is prone to make in that he mixes up the result of a serious injury with the question of treatment. In other words, the types of injury that he has quoted are bound to have serious and permanent results irrespective of the best treatment possible, and the only fair comparison—for instance, if I understood him correctly, his first case was a case where there

was an overlooked, apparently overlooked, fracture of the knee joint. That means lack of X-ray perhaps, but you are sure to have a serious difficulty from a fracture of the knee joint irrespective of whether or not it is recognized, and the only fair way to compare a fracture of the knee joint, when it comes to compensation costs, is to compare the cost of that case under that doctor with a case of fracture of the knee joint, which is usually a spiral fracture, with treatment under the best surgeon, and there won't be any great disparity in cost.

Now, as to the second case that he quoted—extensive third-degree burns—as he quotes it you know that there is bound to be great disfigurement and slow healing and a long disability under any kind of treatment. And he says that this case was skin-grafted and went back to work in a month. He was mighty fortunate. I have skin-grafted such cases, the whole leg and the whole arm, and gotten the patient onto his feet and seen the skin graft break down, and have to begin all over again. So in that case it is not altogether fair to criticise the doctor for not doing skin grafting, because that is not a cure-all on burns, especially those of very slow healing.

The third case was fracture of the pelvis. He does not indicate what part of the pelvis. Another thing, it is very difficult to make a diagnosis of fracture of the pelvis when there is not much displacement, and when there is much displacement you are pretty sure to have a fatal result. This must have been a fracture of the pelvis without much displacement, that is, of the big bones that carry the weight of the body. If that case got well within two years the commission was lucky. It was lucky it got out as cheaply as it did. There is very little treatment that modifies fracture of the pelvis at all. The usual treatment is to put it up in a hammock, or put it on a Bradford frame and let nature take its course. Nature is a great healer. As to fracture of bones of the hand, I indicated at the meeting in Madison that where you have certain types of fracture of the metacarpal bones, the bones between the fingers and the wrist, if that injury was a twisting injury, if it was a crushing injury, it was not because it was set poorly. It was the nature of the injury that gave the man the claw. You can't break those four bones without tearing the nerve supply that affects all the muscles between those bones, so when it heals you get a claw; it is almost impossible to break the four metacarpal bones and put them up straight and get a good hand.

Those are types of injuries that are bound to have a serious future, and it is not altogether fair to say that the results in cases of that kind are due to the lack of adequate medical treatment, unless you make a comparison with cases treated under other conditions.

One other feature comes to mind. The X-ray from one standpoint is very much of a nuisance, because you can have bones in the leg healed in such a way that the weight-carrying line is absolutely straight and the leg functions as it did before, but in an X-ray picture it looks like a Japanese puzzle. The fact that in the X-ray of it those bones are not in alignment does not indicate it is a poor result. The measure of the result is what it does for the man after it is well, and whether it carries the weight that it should in the way that it should. So the X-ray should not be accepted as to the result in any fracture case. It is the clinical result in your fracture case

that you want, and not what an X-ray picture shows to you. Hundreds of cases are operated upon because doctors are afraid to stand up and say "That is a good result" in the face of what the X-ray pictures show, because they know what may be the result when it is shown to a jury of ignorant men by a skillful lawyer, who tells them to "look at that horrible result." Still, the man walks and works as always and does not lose any time nor suffer.

Disabilities from TNT were instanced, and I use that TNT poisoning as an example of why boards should be alert when new things are brought to their attention. New things are constantly coming to us about which little is known, and in Massachusetts, when TNT work was started, men dropped dead on their way from work, and it was looked upon as from a natural cause. We investigated these deaths and we found that the nitrous fumes from TNT produce conditions of the lung unknown to pathology at that time, and later that they produce a condition of the liver unknown to pathology up to that time. These things happened, and we finally were able, when death occurred, to connect it so closely to that employment that safety devices were installed.

Now, when a thing is new it is not necessarily unsound, and when you see these things happening in sequence, be on the alert, not for what the man's doctor may claim, or for what the employer may claim, but have an independent source of study and investigation so as to be sure you do justice in the case.

The question of the length of disability in cases is also interesting, because you gentlemen are confronted with textbooks. Well, a textbook statement as to disability in a given injury is absolutely valueless to you. For instance, take last year in Massachusetts, we had a very stormy, cold, snowy winter. In six or eight weeks something like between 12 and 14 feet of snow fell. You can imagine what fracture cases which at the beginning of the snowstorm had arrived at the state where they ought to ambulate, were like after eight weeks of nonability to get out. So the disability that should be accorded to a fracture depends not only upon the fracture, but upon the time when it occurs, and in the East you can double your period of disability on fractures that occur so that the man expects to get about in November; you will find that it will take him all winter to get going, and it is not fair to accept the statement of the textbook or book-read expert that this man ought to be at work in six or eight weeks. He ought to be at work as soon as he is able to get out and walk and loosen up the results of that fracture, and that means all winter in leg cases.

Now, Dr. Donohue, of Connecticut, made an observation about the common man which is a very good one, and I will commend it to our friend Mr. Pillsbury. My experience with the common man is that he is very much better in picking out a doctor than the highbrow. It seems to me the higher men get in intellectual growth the less common sense they have in picking out doctors, and as an example to you I will commend to your attention the agitation in California now about the men who set all kinds of cases, reduce all kinds of cases, by manipulation of the spinal nerves.

The back is an interesting thing, and no two backs are alike. Men's backs develop and grow, depending upon the kind of food the men

have to eat, the kind of race they come from, and the kind of work they are called upon to do in their early years while the back is in process of development. Now, it is obvious, as you look about, that there are certain types of back that will not stand certain types of industrial strain. In the General Electric Works, at Lynn, in which a study has been made by my friend Schubmehl, it has been found that a man 6 feet tall can not do the work in the foundry without suffering back strain, so work requiring excessive back work is confined to men who are 5 feet 8, or less, in height.

Now, the other types that have back strain are the people who come from the southern part of Europe, who do not have animal food when growing. They have a peculiar skeleton which is quite different from the northern white race, in that the back does not have normal contours, the legs do not have a straight line, they are bowed forward and outward, and the pelvis is flat, so that the man approaches the simian, or monkey, type of carriage. As he works he acquires a postural stoop, his head is carried forward, his shoulders rounded, and he does his work in that way. Now, it is perfectly obvious that that man is working at a disadvantage all the time. His muscles are pulling at a disadvantage and the weight of his body and the weight of his head are not carried in the way that they should be. The center of gravity is forward and the work is largely done by the muscles. Now, that man can go along for a long while, until something throws him off his working balance, and when he is thrown off his working balance those muscles are called upon to pull in an entirely different way, in an entirely different line, and it takes longer for that man to get well. He is not a faker. He is suffering from a developmental or postural condition, which a trivial injury will seriously aggravate, and the condition will be prolonged beyond anything you would expect in an ordinary man.

Now, as to infection from the teeth. The discovery that teeth caused infection was a splendid thing for the X-ray man, and incidentally it is a good thing for the dentist; but I am waiting to see whether the balance is going to be fair as to the good you get out of tearing up the jaws over letting them alone. You have in the body certain types of infections which settle in the joints, which are well known and common, and they come from 32 feet of intestinal tract, which are just as important as that from one small insignificant stump in the jaw; but you have got to have your jaw fixed, and nobody pays any attention to your digestion or your food. So every man, when he gets to be 40 or 45, has in his back certain low-grade inflammatory changes, not altogether due to infection, but due to the abnormal way he gradually has acquired a posture. You find the "poker" back. You will find the teamster's back—he has got a stiff, rigid back—and if you X-ray that you will find all kinds of spurs sticking down from one vertebra to the next. Those came, as the hump of the back came, from work, with a minimum of infection. You can pull all the man's teeth and it won't affect him at all. You aggravate that back and it takes longer to get well; but when you quiet that back down and the localized pain ceases and the cramping of the muscles does not occur when the man works, he is just the same as he was before, and any compensation payment should stop. I should draw a distinction between the aggravation chargeable to the

industry and a condition which comes from a life of work where more or less exposed.

One last subject I have in mind is the treatment of fractures. We have heard about splints, we have heard about operations, and I am not going to bore you about the types of operations. Theoretically taking out the astragalus is fine operative practice, but in the case of an adult it is practically valueless. It is fine in children where they are beginning to grow and can change their weight bearing, but in an adult who has a fixed habit it is not practicable. Here is one thing, does a man walk in his bare feet? Of course not. When at work he needs a pair of shoes. I have seen the worse cases come into the accident boards, with long periods of disability, not because the fracture was not properly set, not because the man was not encouraged to go to work, because he had all kinds of encouragement and threats, but because he did not have anything to walk in at work that would support his feet. A pair of shoes is often more important to a workingman, a pair of shoes with thick soles, than another surgical operation.

Now, I am going to say one word about hernia, and by hernia I am talking about the inguinal hernia, hernia of the groin. Is it an accident, is it congenital, or is it an injury, or is it a combination of these? Our law says, "Any injury that arises out of and in the course of the employment should be compensated." Now, let us agree, as we must, that no hernia comes immediately, without a long period of preparation. Sometimes it comes with the "last straw on the camel's back," and a pouch, a pushing down of the bowel, comes under the skin and pops through an opening so you can see the bunch. It has been bulging for weeks and months and years, and finally some strain pushes it out. That is disabling until one of two things happens, either it is reduced and a truss and pad put upon it that will hold it adequately or it is operated upon.

Now, there is your measure of disability under a compensation law; when it is pushed back and a pad put on it, it is substantially the same as it has been for months and years, except the "finger of the glove" has been stretched a little more, and it may be easier for it to slide out again, but it is not a disability until it slides out the second time. As I say now, an accident is another thing. An accidental hernia means the forcible driving out or tearing of the inguinal region, something driven out forcibly. That is accompanied by what? What do you expect with tearing of the abdominal muscles? First, you forcibly stretch the peritoneum, or covering of the intestines and the inner side of the belly wall, tear apart muscle fibers, which up to that time have held that intestine inside the belly wall. Therefore, you must have acute pain, so that a man—everybody about the man knows that something has happened. The second thing you must have is discoloration, because when you tear human tissue, it bleeds, and the blood comes under the skin, so that it is unmistakable. Third, you must have an irregular ring. And you must have all those things immediately within 48 hours.

Mr. PILLSBURY. Will you look that over and tell this audience what you think of that? That's our policy regarding hernia. I would like to have you punch it full of holes, if you can.

Dr. DONOGHUE. That will be hard work in California. [Reading:] "First, the fact that a workman may have a predisposition to hernia is not a defense, but there should be proof of an injury sufficient to establish as a fact that the major cause of the hernia was the injury and not the predisposition." The California law is practically and substantially the same as the Massachusetts law, "an injury arising out of and as a consequence of the employment." Men are hired as they are. If they have a predisposition to hernia, which manifests itself on the job so it is disabling, that man has received an injury arising out of and in consequence of his employment, just as surely as if he fractures his leg.

[Reading:] "Second, any hernia which causes disability, whether complete or incomplete, brought on by a sudden strain or wrench, or by repeated strenuous efforts or heavy lifting, is compensable." I agree thoroughly with that.

[Reading:] "Third, a chronic hernia, if enlarged, exacerbated, or injured by a trauma is compensable but subject to the provisions of section 3, paragraph 4, of the workmen's compensation, insurance and safety act, relating to exacerbation." I don't know what that section is.

Mr. PILLSBURY. That provides that where a disease, and we regard that as a disease, is exacerbated by an injury, only so much shall be charged to the injury as can be reasonably so charged. That is where the disease is exacerbated. We have a rather fine distinction there. Where an injury exacerbates a disease we charge industry with so much only as may be reasonably attributed to the injury; the employer takes the employee subject to the condition he is in when he enters the employment, and there is no reduction. That's what that refers to.

Dr. DONOGHUE. I don't believe it is humanly possible to draw the line in a hernia so that you could say, "Cæsar gets this and Cæsar does not get this."

Mr. PILLSBURY. Once in a while we have a man who has a hernia, has had it for years, but some injury comes on and the whole gut comes down, and he is incapacitated; his truss will no longer hold, and he has got to have radical treatment. That once in a while happens, and that is what that refers to.

Mr. CLARK. Do you pay for that kind of case?

Mr. PILLSBURY. In that case we pay for the operation, but there is no disability indemnity.

Mr. CLARK. Don't you pay indemnity when he is going through the operation?

Mr. PILLSBURY. Not in a case of that kind. We hold he gets plenty if he gets the operation and gets it paid for, as it is a case of disease.

Dr. DONOGHUE. Under our law we can not draw that distinction.

Mr. LEE. Under our law we don't want to.

Dr. DONOGHUE. [Reading] "Fourth, in all hernia cases, in order to be compensable the evidence should show an onset of sufficient severity to put the injured workman out of commission, at least for the time being, or that he reported his injury to his superior as soon as possible, with corroboration, where obtainable." That is attempting

again to make a hernia an accident instead of an injury, because a man may have a hernia, and he feels discomfort after a strain, and the next day there is a little more discomfort, and two or three days later he finds a bunch. He goes to a doctor and the doctor gets his history—I am assuming in this discussion all people are honest—why that, of course, under our law, is compensable. Where you say "it must be" you have the legal idea there must be a time and place that can be checked up. The time and place can not be checked up on injury cases as well as on accident cases. There may be a summation of injury, a slowly developing injury, which at the time a man pays little attention to, until it arrives at a point where it is disabling. On the other hand, as I have indicated, you can draw the line between the slowly developing one and the accidental type, which is extremely rare.

[Reading:] "Fifth, the compensation allowable for a hernia usually will be limited to the surgical and hospital treatment necessary to effect a radical cure, together with payment covering the disability resulting from the operation. If, however, the employer or insurance carrier unreasonably neglects or refuses to tender an operation, disability payment, total or partial, may be allowed for the time prior to the determination of the issue."

In the first place, the objection I have is, if his hernia was aggravated to the point it disabled him he is entitled to the full benefit, and it is not a question of splitting the hair in the middle and saying, "50 per cent of this you can have, and 50 per cent you can not." In the last half of the paragraph, "if the employer unreasonably neglects or refuses to tender an operation," I think there again you go back to the accidental hernia so called, because in a chronic hernia, slowly developing hernia, when it is reduced with an adequate truss that holds it, the man is again substantially as he was before the aggravation, and an operation is only one of the things that you might tender him. If you would add to this fifth clause and make it read: "If the employer unreasonably refuses to offer and the man refuses to accept a good fitting truss or an operation," then the commission may exercise its judgment to suspend payment.

[Reading:] "Sixth, a reasonable settlement between the parties may be approved by the commission where, by reason of age or physical condition, an operation for the cure of a hernia is not advisable." There can be no objection to that, because there are cases, and we have had one or two of them, where a man's hernia was undoubtedly aggravated, an old, long-standing thing which finally the truss would not hold, and by reason of his general condition, of heart and lungs, an operation was not advisable. In that case a reasonable settlement might be arrived at to pay for some degree of the aggravation. Does that answer you, Mr. Pillsbury?

Mr. PILLSBURY. Yes.

Mr. D'ANCONA, of California. Doctor, should there be any distinction between any exacerbation of a hernia and the strangulation of a hernia?

Dr. DONOGHUE. Strangulated hernia usually occurs on the job after a heavy lift if it arises out of the injury. It is accompanied by a pinching of the blood vessels and nerves of the intestines. In those cases we allow the doctor a little more for operating than we

do in the other type. That is a definite, nondisputable injury that arises out of the employment and requires a little more skill and judgment and watchfulness than the uncomplicated case.

Mr. D'ANCONA. Is there any distinction? Is it not simply an exacerbation?

Dr. DONOGHUE. It is an exacerbation, but it is usually inflammation of the sac of a hernia or a sac that had not altogether intestine in it but fat, where that fat has come out and got stuck down.

Dr. DONOHUE. Incarcerated?

Dr. DONOGHUE. Not quite incarcerated.

Mr. KINGSTON. What was that operation we saw this morning at the hospital?

Dr. DONOGHUE. Supposed to be a direct inguinal hernia, but direct inguinal hernias are as scarce as snakes in Ireland.

Mr. LEE. Our practice is that where a man comes before the commission with a hernia we ask him whether or not he is willing to undergo an operation, and we also ask the doctor whether in his judgment he is a man of such physique and health as to be able to withstand an operation. That is looked into, and if the reply is absolutely affirmative then we ask the man whether he will undergo the operation. If he refuses simply because he does not want to be operated on, we have a rule that fixes eight weeks' disability which under the old law would be six weeks' compensation, because two weeks of that time was waiting period. As a matter of practice, in your judgment as a medical man, do you think that is a fair practice?

Dr. DONOGHUE. My answer to that would be that it depends upon that man's work. Every hernia does not of necessity need an operation, just the same as it is not necessary that every semilunar cartilage in the knee be taken out if it is loose. It depends on what the man does, and if the man has a job or is given a job which does not aggravate it, or if the truss holds it, his period of disability should not be six weeks or eight weeks; it should be six days. That is the length of time necessary to get a truss to put it back. Then if the truss does not hold it and the man continues on a job in which the thing is liable to be aggravated, he comes in the unreasonable class and is not entitled to anything if he does not accept the operation.

Mr. LEE. You think it can be corrected with a truss, then?

Dr. DONOGHUE. It can be; yes.

Mr. LEE. Then the man would not have to be operated on?

Dr. DONOGHUE. No; the aggravation from that particular injury, arising at that particular time, has ceased.

Mr. LEE. Let us assume it is a case in which an operation will correct it, and it is the advice of competent medical authority that that is the proper thing to do, and the man refuses to have the operation performed.

Dr. DONOGHUE. I hesitate about saying a man is obliged to have a surgical operation.

Mr. LEE. No; we simply say, "You have the alternative. If you undergo this operation, we will pay you whatever disability you

suffer, whether it is six weeks or six months, and if you will not undergo it we have no means or desire to force you to do it, but we can not expect your employer to carry you along when you say you are unable to work." I want to know if six weeks is a fair estimate, if you have to approximate an estimate.

Dr. DONOGHUE. No. He is either entitled to all or entitled to nothing. He is entitled to his disability if he is entitled to anything. If, as a matter of law, he is unreasonable in his refusal to follow medical advice, he is not entitled to anything.

The CHAIRMAN. Doctor, you can't force a man to take a major operation.

Dr. DONOGHUE. Oh, yes; you can.

The CHAIRMAN. Not in our State.

Dr. DONOGHUE. In our State we can say he is unreasonable not to accept the operation and compensation settlement.

Mr. LEE. The reason, as I understand it, for our rule is this, among medical men that eight weeks is a good allowance for men who suffer as the result of hernia.

Dr. DONOGHUE. Pure rule of the thumb.

Mr. LEE. A man says he is disabled.

Dr. DONOGHUE. Put a truss on and reduce the hernia.

Mr. LLEWELLYN. I think we are discussing a subject which is especially on the program for to-morrow, and before the doctor sits down, I would like to make a brief statement, because he may wish to reply, and I would like to ask him a question. I can not allow my four illustrations to be knocked down as brusquely as the doctor has done without some reply. I, of course, did not venture my own judgment in selecting those illustrations. I took the best surgical authority in the vicinity, Dr. J. W. Mowell, and asked him to go over our cases and select such ones as, in his judgment, constituted flagrant cases of mistreatment, and give me the figures, according to his best judgment, that those cost in excess of what they should have cost under the best treatment. Now, I would like to ask the doctor if he means, or if he desires us to draw the conclusion from his remarks, that modern industrial surgery contains no avoidable malpractice or mistreatment.

Dr. DONOGHUE. Oh, no. I will correct my remarks as far as you are concerned by saying they apply to Dr. Mowell. Certainly there may be malpractice, but poor results are not necessarily malpractice. I mean I draw that line. I think the word "malpractice" is a word which commissions should use very sparingly, because if a commissioner says, "This is a mighty poor result," forthwith the doctor may have a malpractice suit. At the present time in Suffolk County, Mass., we have approximately 40, in Essex County something like 36, and in Plymouth County 12 cases, and I do not know about the rest of the counties, but I know of a lot, and many of them have come from just such a remark, "This is a mighty bad result. The doctor ought to be ashamed of it." The distinction must be drawn very, very carefully.

Mr. LLEWELLYN. Doctors can not be sued for malpractice in Washington.

Dr. DONOGHUE. They can be in Massachusetts. Whether or not they can be convicted I do not know. So far in all the cases I have testified in there has been no verdict against the doctor, because I draw that line between malpractice and a poor result from a bad injury so that the jury understands it—have been able to so far and hope to continue.

Mr. MACKEY. This discussion I have heard on these technical medical questions has been very interesting, but it seems to me that the best work that this association could do would be to demonstrate to the States how thoroughly along the line of economy full and adequate medical treatment will be. That is the trend I thought the discussion would take, and I am sure I speak for Dr. Connelley, the commissioner of labor and industry of Pennsylvania, when I say you could do no better service for a great industrial State like Pennsylvania than by showing by your arguments and by your statistics, backed up by this association, that it is the poorest economy in the world to give us in our statute the most inadequate medical service by the restriction of fees and the time of service.

Now, it seems to me the great work of this association is for the representatives of these various States to come into assemblies such as this and lay our goods upon the table, sort of a sample counter, and then we can look them over, and pick out the high spots in each one of these legislative productions, with a view to a standardization of all the best in these laws, so that out of these conferences will grow a great uniform standard of compensation legislation.

Now, Dr. Connelley has a peculiar problem in Pennsylvania. We have a legislature where various interests are represented. That legislature has such confidence in him that when he asked for $900,000 a year to run his department there was no hesitation. They will vote out of the State treasury all the money that he asks for, but if he goes before the legislature and says, "Amend our compensation law so that the injured workmen get unlimited medical service without limitation as to cost," down upon his head will come the manufacturers' association and the insurance carriers and all the great representatives of the State and say, "What's the cost?" When we started the compensation law in Pennsylvania I had nothing to do with the original draft; I came in after it had become a law, but I found that the legislature had given us $25 in the ordinary case and $75 to cover a major surgical operation. Well, I do not know whether or not anybody knows what a major surgical operation is. I do not know whether any expert could tell us where we ought to say, "This is a $25 case," or "This is a $75 case." Whenever a knife enters the human body that is major enough for me, so I will always give $75. Our medical profession all over the State—11,500 physicians—through their recorded membership in the various medical societies of the State, were passing resolutions for two years, and the sum total of it was when it came to our law, the legislature gave us everything our commission asked for as to procedural amendment, but when it came to the question of cost, that barrier was up, and we finally got through only an extension of the 14 days' medical service to 30, and an extension of the $25 and $75 to $100.

Now, I believe that adequate medical service is more important than compensation. The compensation is immediate temporary relief,

and it is important; but proper medical attention is the whole thing, as evidenced by the fact that adequate medical service is given under our law for noncompensable accidents. Under our law there have been almost 1,000,000 accidents, and within that period 600,000 men have received adequate medical service and returned to work before their cases became compensable. The greatest work that can be done for States in the same condition as Pennsylvania is for those States that have unlimited medical service to show by figures on cost that their manufacturers and their business men thrive and make money under their law, and that their provisions in that respect do not drive the big interests out of the State into some other State where they are not liable to be mulcted of such excessive medical fees.

I spoke yesterday regarding self-insurers. We never have a meeting but what the self-insurers come before us and show us their liberality in medical service. I know of no employer who is withholding unlimited medical service to an injured man, but that is not what the workmen want. The workmen want no charity; they want no patronizing attention. What they get they want to get because of the authority of the law of their State. And therefore out of this conference, out of the deliberations of this body, and out of the hands of your statisticians can go no greater work than a complete demonstration to the business world of these mistakes, that they ought to take down the bars and wipe off these statutory limitations.

Dr. THOMPSON. I do not want to pass by the opportunity of saying how grateful I am for what Mr. Pillsbury taught me in compensation work this afternoon. Our compensation is for the workman. To restore to function, as the gentleman says, is far greater compensation than all the money for immediate necessities. His idea is not that of an idealist or a day dreamer, and I hope to see the day when it will come true. He is simply outlining what would be a complete system of compensation to the man—compensation considered in the way of restoring him to usefulness in life.

Now, one word about Mr. Llewellyn's statement a while ago. He was absolutely right from my point of view. Yesterday I also heard something about the X ray not being of a great deal of benefit, but maybe I misunderstood Dr. Donoghue.

Now, I thought it might be possible to take care of the different fracture cases and make diagnoses without the use of the X ray. Of course, the X ray is only a part, and you must be controlled in a great degree by your clinical findings. A man is criminally negligent who does not use that to check up on all conditions. Dr. Donoghue says: "Suppose a bone does not set end to end if the line of weight bearing is all right?" But how are you going to know? Suppose the fracture is in the joint. The power or the ability of the commission early to have the man examined by the X ray, and otherwise, by whatever means may be at hand, and to place that man under some one who will competently care for him, is one of the greatest economies in medical service we can have, because after all your saving is measured in the end result to the man, and not in the cost of treatment. You may measure it financially or not, but after all it is in the restoration of the man to service for the needs of himself and his family.

Mr. VERRILL. I would like to ask the gentleman from Pennsylvania one or two questions. How does the amount of money paid out for compensation in your State compare with the amount of money paid out in medical and hospital treatment?

Mr. MACKEY. We have not those statistics as far as State treatment is concerned, because returns are not made to us. Our insurance carrier tells us that fully 50 per cent of all the money paid in Pennsylvania in consequence of injury is paid to the physicians, because of the fact that in a great number of cases the physician gets all the money.

Mr. VERRILL. It seems to me that is a very broad question here. I have not heard very much about that—the amount of money paid to injured workmen compared with what is paid to doctors and hospitals. I can say that in Massachusetts there was $5,000,000 paid to injured workmen and hospitals and doctors last year, $4,000,000 of which went to the workmen and $1,000,000 to the others.

Mr. MACKEY. With laws like Pennsylvania's, the physicians are amply paid for the short-time cases, but we have no provision beyond $100, and when a man has a serious injury he is treated through the charity of his employer.

The CHAIRMAN. To-morrow we have another session on medical questions. Those that have not had opportunity of engaging in the discussion this afternoon may do so to-morrow.

Dr. GIBBONS. I want to announce to the people visiting here that there are several institutions in San Francisco which it might interest you to visit and inspect. One is the Union Iron Works, a self-insurer, having a hospital of its own, quite an admirable hospital, and giving physiotherapy and occupational therapy. The next is a group conducted by Dr. Goodale in which he takes work on contract from a number of insurance companies, and which is quite a complete unit; the Hahnemann Hospital, now conducted by the University of California as an accident insurance hospital, in which they treat cases through the physiotherapy method, and the Stanford University Hospital, connected with Stanford University, and the Lane Clinic, in which they treat a number of industrial injuries and also conduct physiotherapy. If any of you are interested in visiting these hospitals, I can make arrangements and see that you go there properly chaperoned.

[Announcements were made by President French, requesting those who had not registered to do so, and requesting the names of those who wished to attend the dinner for Thursday evening. Meeting adjourned.]

CHAIRMAN, HARRY A. MACKEY, CHAIRMAN, PENNSYLVANIA WORKMEN'S COMPENSATION BOARD.

DISPOSITION OF COMPENSATION CLAIMS.

Mr. FRENCH. The chairman this morning is a gentleman who has had wide experience in dealing with compensation problems. The decisions that have been rendered by the State of Pennsylvania are considered among the first in this country, as well as in Canada, and a great deal of the credit of those decisions is due to the chairman. I shall call upon Chairman Harry A. Mackey, of the Pennsylvania Workmen's Compensation Board, to step forward, please, and take the chair.

The CHAIRMAN. When I received my commission to preside at this session I also received what purports to be an official program, with time for myself, as well as each of the gentlemen who are to read papers, indicated in red ink. As far as I am concerned, myself, I shall stick closely to instructions.

That every man should have his due is a great doctrine, but a greater one is that every man should have another chance. This is the thought that gives rise to our poor man's court, the juvenile delinquent courts, the home visitors and probation officers, the separate miscreant courts, the public utilities boards, and the compensation commissions.

I note that Mr. Connor, in his paper published in the records of the last meeting of this association, has quoted Prof. Downey, our special deputy, attached to the Pennsylvania Insurance Department, in part as follows:

> The two great desiderata in the handling of compensation claims are prompt and full payment of the benefits provided by law. Workmen's compensation acts are placed upon the statute books for the relief of injured workmen and their dependents. * * *
>
> Any attempt to withhold compensation on mere technicalities, to cut off payment before disability has ceased, to harass claimants with procedural details, or to coerce them into accepting less than the full legal benefit is contrary to the whole spirit and intent of workmen's compensation. Delay is emphatically a denial of justice. Promptness in bringing relief to the sufferers is of the very essence of any sound scheme of social justice.

It must be remembered that compensation laws were written for the very purposes set out by Prof. Downey—to bring relief at a time of need, to bring it promptly and fully without quibble, without delay, and without cost, and therefore all schemes of procedure must be absolutely simple, devoid of technicalities, and placing no premium whatsoever upon the skillful practitioner or the expert in pleading. In the State of Pennsylvania, as I have already stated, for the years 1916, 1917, 1918, 1919, and eight months of 1920, there have been executed 300,244 compensation agreements. That, to my mind, vindicates the compensation law, for when 300,000 injured men will sit down around the table with that many employers and without delay or quibble or misunderstanding on a matter involving

money, in each case on an average of 19 days from the date of the injury, it means much for the whole social problem.

The suggestion has been offered, at a previous meeting, that perhaps a study of these cases might reveal some inaccuracies and the fact that some employees had been underpaid. Of course that is possible and very probable. I would not undertake to insure the accuracy of each particular document in a collection of 300,000, but, as I explained yesterday, when parties subscribe to these documents, under our practice they are not estopped from afterwards setting up other facts which will lead to the modification of these instruments, and under our amended act I see very little opportunity for any injustice to be done. I might say at this point that quite as many cases have been called to our attention of overpayment as underpayment. Under our amended act I can hardly understand how an employee can allow himself to be underpaid, for the reason that he certainly will not sign an agreement that misstates the nature of his employment, or the method of his payment, or the amount of money that he receives, either by the day or the week or the month. He can also describe his injury sufficiently accurately for the purposes of that agreement. We also have a provision in the agreement that the formula adopted for the purpose of calculating the average weekly wage must be set out, or, in other words, the actual mathematical calculation must be incorporated in the agreement. When these agreements come into our bureau they are turned over to trained examiners, and it seems to me that there is no possibility of a mistake. Now, bear in mind that these agreements can not be terminated by the parties, and I venture to suggest that the rights of both are very well conserved.

There are always a large number of disputative questions involved in the disposition of cases. The first question to be determined, of course, in a disputed case is whether or not the relationship of employer and employee existed at the time of the alleged accident. This brings into view the various definitions of these two terms in the legislative acts of the different States. After it has been determined that employment did exist, then the next question that naturally arises is, Was there such an unexpected or fortuitous event that under the law it can be determined that it was an industrial accident? Then if the commission decides that there was an accident, the medical associates must determine the extent of the injury, after which the commission must apply the rules for the computation of average weekly wages.

If all these questions are determined in favor of the workman or the dependents of a deceased workman, we come to the point of disposing of the first stage of the case, the making of an award, but in my judgment that is only the beginning of our responsibility in the case. Our degree of care of that particular man will vary in accordance with the change of his status from time to time. Of course, he may recover and return to work. We must know and be satisfied of that fact, and see that the employer is relieved of the obligation to pay compensation because of the fact that the employee is apparently cured. He may have a recurrence of disability, however, and our duty then is to revive the liability of the employer so that the employee may be further benefited. Under the modern idea of our care

of and attention to these men, the large question of rehabilitation will enter, and then comes our opportunity for the exercise of the best judgment that we are called upon to exhibit at any stage of a compensation case. In the disposition of compensation cases the question of commutation will very frequently arise. The injured, or widow, or other dependents, making this application may be unaccustomed to handling money in bulk, and if we yield to our sympathies and place this money in their hands it will not be long before it will be dissipated, leaving the dependents in worse position than they were in before. Therefore we are guardians of the future of such people. There enters into the disposition of compensation cases that human touch and human interest that transcends in importance every other consideration, so that this morning it will be of great advantage to us to listen to the papers of these experts, who will translate their experiences into words of wisdom for the benefit of all of us who have come here to learn.

The first paper on the program this morning is "The Problem of Dependency," and it gives me great pleasure to announce that our old friend, Commissioner Pillsbury, will discuss the question of the problem of dependency.

THE PROBLEM OF DEPENDENCY.

BY A. J. PILLSBURY, COMMISSIONER, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

SYNOPSIS.

There is not and never has been an adequate death benefit provision in any compensation act in the world.

In foreign countries provisions in compensation laws regarding dependency fall into two groups, those that allow a lump-sum payment in the event of death, and those that allow payments only in percentages of wages. Great Britain leads the former, Germany the latter.

In the United States both systems obtain, sometimes in the same law.

Forty-five States and dependencies, including the United States Government, provide death benefits in some form. Oklahoma alone of the compensation States, does not.

In every law the weekly payment is ordinarily inadequate either in amount or duration and generally in both.

The original idea may have been that the employer should be made the insurer of the lives of his workmen for the benefit of their dependents in a degree similar to what a prudent workman would insure his own life for for such benefit.

The ideal thing would be to have such insurance equal the capitalized value of the life sacrificed in industry.

The practical idea will probably have to be such coverage as will meet the reasonable needs of dependents for support and the rehabilitation of a self-sustaining earning capacity.

The inflexible three-times-the-average-annual-earnings method of compensating, commonly in vogue, fits such reasonable needs in less than half the cases—being excessive in some instances and falling far short of requirements in others.

This fact has been established by a careful investigation of 536 dependency cases in California.

A reasonable classification of dependent widows for apportioning death benefits would be into—

Lone widows under 35 years of age.
Widows over 35 years of age without dependent children.
Widows with one dependent child.
Widows with two or more dependent children.
Widows incapacitated from earning through age or incurable disease.

Investigations disclose a general lowering of the standard of family living following the death of the husband, notwithstanding the payment of compensation, and also the breaking up of many homes and a deterioration in the family health.

Only in cases of lone widows should remarriage wholly terminate the payment of death benefits.

The right to allow lump-sum payments is inconsistent with termination of death benefits on remarriage, but should be preserved within the discretion of the board or commission administering the law.

The reasonable costs of making good a claim to dependency, as well as the cost of burial, not exceeding $150, should be allowed in addition to all other death benefits.

A widow having five or more dependent children should be allowed a weekly payment of 100 per cent of her deceased husband's wages, in view of the maximum restrictions placed upon computing the average annual earnings under compensation laws.

Death benefit funds should be provided by assessing against the industry, through the employer or his insurance carrier, a lump sum payable to the State, equaling a necessary percentage of the capitalized value of the life of all workmen killed in industry, whether or not they leave dependents. This fund should be used by the State:

1. To compensate dependents according to their reasonable needs until they can become self-sustaining.

2. For the reeducation, rehabilitation, and placement in employment of such dependents.

3. To provide means for carrying on needed safety work, to the end that all employments and places of employment may be made as safe as possible and industrial injuries and deaths be reduced to a minimum.

4. To provide means for reeducating and rehabilitating all crippled workmen, to the end that a dependable body of trained labor may be preserved to industry.

5. To provide for life pensions where workmen have sustained multiple injuries at different times and with different employers, and, therefore, are ineligible for such pensions under the compensation laws.

6. To provide life pensions in cases where, by reason of old age, an injury breaks down the working power of a workman notwithstanding the fact that the injury itself is recovered from.

Such a system of creating and distributing a death-benefit fund would—

(*a*) Prevent discriminating against family men, and gray-haired men in employment;

(*b*) Put a stop to the needless sacrifice of life in industry;

(*c*) Complete the compensation system in all essential particulars; and

(*d*) Would not put a heavier burden upon industry than it can, and by right ought to, bear.

There is not, I think, an adequate death benefit provision in any compensation act in the world and never has been. It is time that there should be, and I am hoping that it may fall to the lot of California to supply a model, provided that it does so without further delay. It would seem that after nine years of experience in administering a compensation law the California commission should, after counseling with this convention, be in a position to propose to the legislature for adoption an adequate provision covering dependency, to become effective during the tenth year of the existence of compensation laws in this State. To this end the commission has been having follow-up work done for more than two years with the view of ascertaining, as far as possible, what have been the reasonable needs of dependents compensated and how far such needs have been met by the provisions of our act.

But before considering the results of these investigations it may be well to review, very briefly, how other States and other countries have handled the problem.

DEPENDENCY IN FOREIGN COUNTRIES.

Provisions regarding dependency in compensation laws in foreign countries fall into two groups: Those that allow the payment of a lump sum to dependents, cash in hand in full of all claim, and those that require the benefit to be paid in installments running over a given period of time or until a certain event takes place, such as remarriage, death, or the attainment of a certain age. This statement has reference to total rather than partial dependency, and, indeed, the problem as treated in this paper has mainly to do with total and not partial dependency. The problem of partial dependency is relatively easily disposed of. What we most need to know is what has happened, and what should have been done, where industrial injury has resulted in death, the deceased employee leaving a widow and children dependent.

The most important countries paying lump-sum death benefits are Great Britain and certain of her dependencies, such as Newfoundland, New South Wales, New Zealand, Queensland, South Australia, Tasmania, Victoria, Western Australia, Union of South Africa, and

Quebec, an instance wherein the bad example of the mother is followed by her children.

There are six more countries which follow Great Britain's bad example: United States of Colombia, Japan, Denmark, San Salvador, Spain, and little Liechtenstein, making 17 in all committed to the lump-sum plan.

Twenty-seven countries, other than the States of our Union, provide death benefits on the installment plan, usually in the shape of definite percentages of wages dependent upon degrees of relationship, although five British dependencies, New Brunswick, Manitoba, British Columbia, Nova Scotia, and Ontario, pay stated sums per month without regard to the wages received by the deceased employee.

The principal countries which follow the installment, or pension, system of distributing death benefits are Argentina, Austria, Belgium, France, Germany, Hungary, Italy, Netherlands, Norway, Portugal, Roumania, Russia, Sweden, Switzerland, Chile, Cuba, Finland, Luxemburg, Peru, and Serbia. It should be stated, perhaps, that the foregoing was the status of these countries at a time when there was a Europe and before that continent had resolved itself into chaos. What the status of compensation now is in the old and new States of continental Europe I do not know, but I suspect that compensation is not functioning to any great extent outside of the larger and more stable countries.

The sum to be distributed in death benefits, whether payable in lump sums or installments, is arrived at in various ways. Ten countries make it three times the average annual earnings, two allow five times and one four times; two allow only one year, and Spain allows seven months to two years; Nuevo Leon, 10 months to 2 years; Argentina and Liechtenstein, 1,000 days' wages; Japan, "more than 170 days," but how much more is not stated in the abstract at hand, but it should be a good deal more if the benefit is to amount to anything. Eighteen countries leave the amount indeterminate, dependent upon death or remarriage, or the attaining of certain ages on the part of the children.

If I understand the Belgian plan correctly, there is collected from the employer in a lump sum an amount equal to the present worth of an annuity yielding 30 per cent of the wages of the deceased employee, calculated as of his age at the time of his death. In other words, if he were 30 years of age and earned $4 per day the total death benefit under the Belgian plan would be $7,059.60, but if he were 60 years of age and earning $4 per day at the time of his death the benefit collected would be $3,970.80. If there must be a limit fixed to the amount collected, this would, perhaps, be as equitable a way of fixing it as any, for it is evident that the economic loss involved in killing a workman 30 years of age is much greater than in killing one of 60.

Allowances as death benefits are ordinarily greatly reduced by certain limitations beyond which they can not go. In Great Britain and her colonies, the maximum is limited to much less than three times the average annual earnings of a good mechanic—hardly more than that of a common, unskilled laborer. For Great Britain herself the maximum death benefit is $1,455.95 of our money; the highest among her colonies is $2,433.25 for New Zealand and Victoria, and the smallest is for Tasmania, where the maximum for three years' earnings is fixed at $973.30. This seems pitifully small.

Of the foreign countries which allow a definite pension to the widow, 10 fix it at 20 per cent of the wages of the deceased employee, 3 at 30 per cent, 1 at 25, 1 at 33⅓, and Peru allows only 11. In such an allowance there must be small inducement for a widow to remain single in order to enjoy her pension, and yet Peru is only 9 per cent worse than the 20 per cent countries named. A widow must be a rare economist who can get along on one-fifth of her late husband's wages, especially if she be ill or old.

DEPENDENCY PROVISIONS OF COMPENSATION LAWS OF THE UNITED STATES.

In the United States and its dependencies there are 46 acts providing some form of compensation for industrial injury. The Oklahoma act alone does not cover deaths. Out of the 45 remaining acts, only 3, those of Alaska, New Hampshire, and Porto Rico, grant straight lump sums. Alaska grants $3,000 to widows, plus $600 additional to each child under 16. If there is no widow, $3,000 is granted to one dependent orphan under 16, with $600 more for each additional child. In no case is the total to exceed $6,000. If the decedent was unmarried, each dependent parent is granted $1,200. New Hampshire grants to widow, children or parents a "sum to compensate them for loss" equal to 150 times the average weekly earnings, not to exceed $3,000. Porto Rico provides compensation of $3,000 to $4,000 to total dependents, graded according to the earning capacity of the deceased and the number of beneficiaries.

Wyoming combines a lump sum of $1,200 to widows with a yearly pension of $60 to each child under 16, which ceases when the child reaches 16, and this in a State where women have always voted! The aggregate added for children can not exceed one and one-half times the lump sum allowed to the widow, which makes the total maximum $3,000.

Arizona pays to "the personal representative of the deceased workman," for the exclusive benefit of the widow and children, 2,400 times one-half the daily wage, not to exceed $4,000. The sum shall be paid to such representative in a lump and held in trust for the widow and children. It is applied to the support of the widow while unmarried and of the children up to 18 years, in accordance with the direction of the court having jurisdiction over the estate of the decedent. The balance remaining unapplied at the close of the estate is to be distributed to the widow, if she still be a widow, and to the children or the next of kin. The effect of the act may be that of a pension provision, though actually a lump sum is granted. The same thing is apparently true of the Kansas act, which grants three times the average annual earnings, with a maximum of $3,800 and a minimum of $1,400, to be paid to the court, to an administrator, or to the dependents direct. Marriage of the widow terminates payments to her, but does not interfere with payments to dependent minors under 18.

Four States provide pensions lasting various periods of time. Three of these, Oregon, Washington, and West Virginia, provide fixed monthly amounts to the widow or dependent widower for life or until remarriage, regardless of wage, with additional amounts as follows for each child.

State.	Monthly payments.				Payment on remarriage.	Period of time.	
	Widow.	Child only.	Additional child, each.	Maximum total.		Widow.	Child.
Oregon	$30	$15	$6	$50	10 months—$300	During life or until remarriage.	Boy until 16, girl until 18.
Washington	20	10	5	35	1 year—$240	do	Until 16.
West Virginia	20	10	5	35	Remarriage within 2 years, 20 per cent of amount due for remainder of 10 years.	do	Until 15.

All three States stop payment to the widow on remarriage, but payments to children continue as before. The other 37 States base the compensation on the wage. Four of the 37 provide a multiple of the annual wage distributed according to a percentage of the weekly wage.

California grants to total dependents three times the average annual earnings, not less than $1,000 nor more than $5,000, to be distributed in installments of 65 per cent of the average weekly wage.

Illinois grants to total dependents four times the average annual wage, not less than $1,650 nor more than $3,500, paid at the same intervals as the wage was paid, or weekly, the payments to equal one-half the average wages. In 1918 the minimum, in case the dependents are a widow and child under 16, was raised to $1,750 and the maximum to $3,750; for a widow and two or more children under 16 the minimum was advanced to $1,850 and the maximum to $4,000.

The South Dakota law provides for total dependents a sum equal to four times the average annual earnings, but not more than $3,000 nor less than $1,650. Payments are to be in installments equal to one-half the wages as paid, or weekly. Compensation ceases on death or on remarriage of the widow.

Wisconsin grants four times the average annual earnings, to be paid in weekly installments equal to 65 per cent of the average weekly wage. There is no maximum or minimum.

Twenty-eight States pay a percentage of the wage for a stated number of weeks. Of these 17 grant a percentage to total dependents without discrimination. Their payments can be tabulated as follows:

State.	Per cent of average weekly wage.	Maximum.	Minimum.	Period.	Total maximum.	Total minimum.
Colorado	50	$8	$5	6 years	$2,500	$1,000
Connecticut	50	14	5	312 weeks		
Indiana	50			300 weeks	5,000	
Iowa	50	10	5	do		
Kentucky	65	12	5	335 weeks	4,000	
Maine	50	10	4	300 weeks		
Maryland	50			8 years	4,250	1,000
Massachusetts	66⅔	10	4	500 weeks	4,000	
Michigan	50	10	4	300 weeks		
Missouri	66⅔			do		
Montana	50	10	6	400 weeks		
Nebraska	66⅔	12	6	350 weeks		
Ohio	66⅔			8 years	5,000	2,000
Rhode Island	50			300 weeks		
Texas	60	15	5	360 weeks		
Utah	55	15		6 years	4,500	2,000
Virginia	50	10	5	300 weeks	4,000	

Of these 17 States, 7 make no provision for any change on remarriage of the widow. Three States, Maryland, Montana, and Utah, stop all payments on remarriage of the widow without regard to children who may still be dependent. This is indefensible on any grounds. Five States, Connecticut, Indiana, Iowa, Kentucky, and Virginia, provide that on the remarriage of the widow her compensation shall be divided among the other dependents, which is better. Colorado provides that a lump sum of one-half of the unpaid compensation shall go to the widow alone if she remarries. If there are children the remaining payments go to them.

Of the 17, Texas alone places no age limit on the children who receive compensation. Iowa, Maryland, Michigan, Montana, Nebraska, and Ohio place the limit at 16 years. Utah says 16 years for boys and 18 years for girls. Colorado, Connecticut, Indiana, Kentucky, Maine, Massachusetts, Rhode Island, and Virginia place the age limit at 18 years.

In 11 States, Alabama, Delaware, Idaho, Louisiana, Minnesota, New Jersey, New Mexico, Pennsylvania, Tennessee, Vermont, and Hawaii, compensation is varied according to the degree of relationship and the number of dependents. Delaware grants to a widow or widower alone 25 per cent, with 15 per cent additional for one child, and an additional 5 per cent for each child thereafter, the total not to exceed 60 per cent. Children alone receive 25 per cent for the first and 10 per cent for each additional child thereafter, with a maximum of 60 per cent. Payments last 270 weeks.

Idaho grants to a dependent widow or widower alone 45 per cent of the weekly wage, with an additional 10 per cent if there are children. Orphan children are granted 25 per cent for one child and 10 per cent added for each additional child up to 55 per cent. The weekly payments are limited to a maximum of $12, which spoils an otherwise fairly liberal act.

Louisiana grants to a dependent widow or widower alone 25 per cent. Fifteen per cent is added for each child, with a total of 55 per cent. One child alone receives 25 per cent, two children, 40 per cent, and three or more children, 55 per cent. Payments last for 300 weeks.

In Minnesota the widow alone receives 40 per cent; widow and one child, 50 per cent; widow and two or three children, 60 per cent; widow and four or more children, 66⅔ per cent. If dependent children are left alone, 45 per cent is granted to the first, with 10 per cent additional for each child up to 66⅔ per cent. Payments are injuriously limited to a maximum of $15 a week and a minimum of $6.50, and last not longer than 300 weeks.

New Jersey pays 45 per cent of the average weekly wage to one actual dependent, with 5 per cent added for each additional dependent up to 60 per cent. It is distributed according to relative dependency on the order of the judge of the court of common pleas. There is, unfortunately, a maximum weekly payment of $10, and payments continue for not more than 300 weeks.

New Mexico grants to a dependent widow or widower alone 40 per cent, with a maximum weekly payment of $10. Five per cent is added for each child, with a total not to exceed 60 per cent. To one

or two orphans alone is granted 25 per cent, with 10 per cent added for each additional child up to 60 per cent. Payments continue 300 weeks.

Pennsylvania grants to a widow or dependent widower 40 per cent, with 5 per cent added for each child up to 60 per cent. In the case of children alone, 25 per cent is granted for one or two, with 10 per cent for each additional child up to 60 per cent. Compensation is based on a maximum wage of $20 a week and a minimum of $10. It is paid for 300 weeks, except in the case of children, when it continues up to 16 years of age.

Vermont provides 33⅓ per cent for a dependent widow or widower, 40 per cent if he or she has one or two children, and 45 per cent if he or she has three or more children. Dependent orphan children are granted 25 per cent for one or two and 10 per cent for each additional child, with a maximum of 40 per cent. There is a total compensation limit of $3,500 and a time limit of 260 weeks.

Tennessee grants to a widow alone 30 per cent of the average weekly wage, to a widow and one child 40 per cent, to a widow and two or more children, 50 per cent. For dependent orphans 30 per cent is granted for one child, with 10 per cent added for each child up to 50 per cent. The maximum weekly payment is $11, and the minimum is $5. Payments last for 400 weeks.

Hawaii grants to a widow or dependent widower alone 40 per cent, with 10 per cent additional for one or two children, and another 10 per cent if there are three or more children. This lasts for 312 weeks. Orphan children are granted 30 per cent for one or two, with 10 per cent additional for each additional child up to the age of 16 years, with a maximum of 50 per cent.

Four of these 10 States, Delaware, Louisiana, Pennsylvania, and Hawaii, stop payments to widows on remarriage and distribute remaining compensation to other dependents. Louisiana specifies that payments to any dependent cease on his or her marriage and the compensation goes to the other dependents. In Idaho, New Jersey, New Mexico, Vermont, and Tennessee all payments cease on remarriage of the widow, so that whoever marries her must assume the entire burden of her family. Great must be the love of such a man for a widow if she has proven at all prolific.

Minnesota gives a lump sum equal to one-half the unpaid compensation to a widow alone who remarries; but if there are children, the remaining compensation goes to them. Delaware, Pennsylvania, and Hawaii stop the compensation of children at 16 years, while Idaho, Louisiana, New Jersey, New Mexico, Vermont, and Tennessee continue it till the age of 18.

Five acts, including the United States act covering Federal employees, pay percentages of the wage until the death or remarriage of the dependent. Nevada pays to a widow or dependent widower alone 30 per cent of the average annual earnings, with two years' compensation in a lump sum on remarriage. A widow or dependent widower with children receives 30 per cent plus 10 per cent for each child up to the age of 18 years, the total not to exceed 66⅔ per cent. Each orphan receives 15 per cent, the total not to exceed 66⅔ per cent. Compensation to a child ceases on death, marriage, or upon attaining the age of 18 years, unless incapacitated from earning, in which case

it continues until he or she can earn. No lump sum is allowed except when a widow remarries.

New York grants the same percentages as Nevada. If the widow who has children dies, the allowance for each child is increased to 15 per cent. On the remarriage of the widow, a lump sum of two years' compensation, payment in full, is given. Payments to children cease at 18 years.

The Federal act grants 35 per cent of the average monthly wage to a widow or dependent widower, with 10 per cent additional for each child up to 66⅔ per cent. If orphan children are left, 25 per cent is granted to one and 10 per cent to each additional, with a total of 66⅔ per cent. Payments to widow or widower cease on death or remarriage. Payments to children cease on death, marriage, or upon arriving at the age of 18 years, unless they are incapacitated, in which case the compensation continues until they can earn. Maximum monthly payments are $66.66 and minimum $33.33.

North Dakota pays to a widow or dependent widower alone 35 per cent until death or remarriage. On the remarriage of the widow she receives 156 weeks' compensation in a lump sum. If a widow or widower is left with children, compensation is 35 per cent plus 10 per cent for each child, with a maximum total of 66⅔ per cent. Compensation for orphans under 18 is 25 per cent of the wages for one and 10 per cent for each additional child, with a maximum total of 66⅔ per cent. Compensation for children ends at 18 years unless they are then incapable of self-support, when it continues till they can support themselves.

REMARRIAGE PROVISIONS IN UNITED STATES COMPENSATION LAWS.

All compensation payments cease on the remarriage of the widow in eight States, Maryland, Montana, Utah, Idaho, New Jersey, New Mexico, Vermont, and Tennessee, the children also being cut off.

Compensation to the widow ceases on remarriage, but without affecting the compensation to the children in 11 States—Iowa, North Dakota, Nevada, New York, law covering Federal employees, Hawaii, Washington, Oregon, West Virginia, Kansas, and Arizona.

In five of the above States the widow receives a lump sum on remarriage, as follows: North Dakota, 156 weeks' compensation; Nevada, 2 years' compensation; New York, 2 years' compensation; Washington, 1 year's compensation; Oregon, $300.

In West Virginia, if she marries within two years of the date of death of the deceased employee, she receives 20 per cent of the remainder of 10 years' benefits.

In Colorado and Minnesota, on the remarriage of a widow alone she receives one-half of the unpaid compensation, but if there are children the remainder goes to them.

Compensation to the widow ceases on remarriage, and any remaining compensation is divided among the other dependents, in Connecticut, Indiana, Kentucky, Virginia, Delaware, Louisiana, and Pennsylvania.

In 15 States no provision is made for any change in the distribution of the compensation: Maine, Massachusetts, Nebraska, Michigan, Ohio, Rhode Island, Texas, Illinois, South Dakota, Wisconsin, Wyoming, Porto Rico, New Hampshire, Alaska, and California.

THE RATIONALE OF COMPENSATION FOR DEATH.

It is at least courteous to suppose that the first death benefit provisions in compensation acts may have been drawn in conformity with some preconceived principle, some purpose to fit the needs, and yet this may not have been the fact. Legislation too frequently is not the expression of any underlying principle or theory of government, but of compromises between conflicting interests. It is a good deal as, before combination and profiteering came into vogue, prices of commodities were wont to be fixed in an open market by higgling and haggling. When once a measure for compensating dependents of workmen killed in industry had been incorporated into a compensation law other States and countries merely copied, with slight variations, and so it has happened that the lump-sum idea, adopted by Great Britain, and the percentage benefit, first put into practice by Germany, became the two types almost universally followed throughout the world.

And yet it may well have been contended in Great Britain that, compensation being insurance, the employer should be discharged of further obligation if he had insured the dependents of his employees in such a sum as a prudent workman would be likely to insure his own life for the protection of his family in the event of his death. Germany also doubtless proceeded on the basis of the death benefit being an insurance provided by the employer, but distributed to the dependents in such a way as to render a longer continued service, the gross amount being less likely to be injudiciously expended or perhaps dissipated altogether. There can be no doubt that the percentage plan is to be preferred, provided that the payments are adequate in amount and continue for an adequate time.

The provision in the California act, while more liberal in amount than provided by certain other States, is, as to fitness, as crude as the crudest. We have known this all along, but there were other crudities in the law the reforming of which seemed to be more pressing, and the commission desired to be guided in so important a matter by the light of experience. Three or four cases may be cited which plainly illustrate the utter unfitness of the three-times-the-average-annual-earnings method of measuring death benefits:

A young woman had been a cashier in a store at a fair salary. She married one of the salesmen who earned a salary sufficient for their support. In less than three months from their wedding day he was killed in a street accident, and in another three months she was back at her desk in the store where she had worked, earning a good living and not in any special need for a death benefit sufficient to support her for four and a half years.

Another young woman had been married about six years and had borne her husband four children, the eldest barely 5 years old and the youngest a tiny infant. Her husband was killed. His wages had not been large, he being an unskilled laborer, and her 65 per cent of such wages was hardly sufficient to maintain herself and her little brood. At the end of four and a half years, before a single child would be old enough to earn a penny, her death benefit would cease.

In another case there was, at the time of the death of the husband, a family of nine children, and a tenth was born after the father's

death. Only two of the children were old enough to be eligible, under our child-labor law, to go out to service, and they were just of the ages when they should have been undergoing training for earning. It goes without saying that 65 per cent of the wages of the husband, to be paid for four and a half years, was wholly insufficient to meet the reasonable needs of this family. In fact, the entire earnings of the husband must have been insufficient, but they had gotten on somehow.

One more instance: A man of 65 had, by reason of ill health and advancing years, descended the industrial ladder until he was glad to take a job at low wages as flagman at a point on a street where an interurban electric line crossed it. While flagging a train a heedless driver of an automobile ran over him and injured him so that he died. His widow had been a home maker and not an earner of wages and her health was far from good. If she survive the four and a half years of continuance of her death benefit, as she may by a decade, she must become a pensioner upon public or private charity. It is only rarely that house mothers have any earning capacity at 65 or 70 years of age, and they need a life pension.

It is easy enough to see and understand that in these instances, and hundreds of others that might be cited, the death benefits received under any limited form of compensation, whether paid in gross sums or by percentages, do not take the place of the breadwinner whose life has been taken by industry. Either there exists an excess over a minimum requirement or a deficiency that results in public or private pauperism.

This brings us to the fundamental issue: What are the reasonable needs of the different classes of dependent widows and children as determined in the light of nine years' experience and observation in administering a compensation law in California?

COOPERATIVE INVESTIGATION.

The State of California raises a fund of several hundred thousand dollars a year, which is expended for the partial support of orphans, half-orphans, and abandoned children. This fund is administered by the State board of control, through a department known as the children's agency, composed of a number of well-trained and devoted women who keep in constant touch with these wards of the State and with the mothers of the half-orphaned children. It was through cooperation with these women, and by a special investigator of our own, that information in regard to dependent industrial widows and children was obtained.

Intensive studies were made of 536 cases of dependency, which may be taken as fairly typical of the whole number of cases of widows who have lost their husbands through industrial injury.

Of the 536 families studied, 118 had to do with dependents other than widows, or widows and children, and are therefore not germane to this particular investigation.

The average time which elapsed between the death of the employee and the making of the investigation was 27.8 months.

Four hundred and eighty-one of the families investigated had been totally dependent upon the deceased employee, while 55 were only partially supported by them.

The results of the investigations may, for convenience, be epitomized as follows:

TABLE SHOWING SIZE OF FAMILIES AT DATE OF INJURY AND AT DATE OF INVESTIGATION.

Size of family—children under 18 or disabled.	Number of families at date of injury.	Number of families at date of investigation.
Widow and 1 child	106	101
Widow and 2 children	61	54
Widow and 3 children	56	53
Widow and 4 children	29	24
Widow and 5 children	10	12
Widow and 6 children	11	8
Widow and 7 children	7	5
Widow only	138	156
Total	418	413

This table shows the size of families at the date of injury and at the date of investigation. The difference in numbers is explained by changes which took place in the makeup of families through death, remarriage, children becoming 18, posthumous children, etc.

TABLE SHOWING AGE OF WIDOWS AT DATES OF INJURY AND OF INVESTIGATION.

Age of widows, by 5-year groups.	Number of widows at date of injury.	Number of widows at date of investigation.	Age of widows, by 5-year groups.	Number of widows at date of injury.	Number of widows at date of investigation.
Under 20 years	5	.....	55 to 59 years	22	29
20 to 24 years	35	24	60 to 64 years	8	14
25 to 29 years	60	51	65 to 69 years	7	7
30 to 34 years	74	69	70 to 74 years	3	2
35 to 39 years	69	77	75 years and over	1	3
40 to 44 years	69	60			
45 to 49 years	30	46	Total	418	413
50 to 54 years	35	31			

The above table shows the number of widows at certain ages, divided into 5-year groups. The average age for all widows at the date of injury was found by the investigation to be 33.3 years. This table shows the modal age in the group 30 to 35 years.

TABLE SHOWING NUMBER OF DEPENDENTS IN 536 INVESTIGATED FAMILIES.

Relationship to deceased.	Number of total dependents at—		Number of partial dependents at—		Total number at—	
	Date of injury.	Date of investigation.	Date of injury.	Date of investigation.	Date of injury.	Date of investigation.
Wife	418	423	.....	.....	418	423
Child	722	662	2	2	724	664
Father	7	6	24	23	31	29
Mother	26	24	44	44	70	68
Granddaughter	6	4	.....	.....	6	4
Grandson	3	3	1	1	4	4
Brother	4	2	17	16	21	18
Sister	15	14	24	18	39	32
Nephew	3	3	1	1	4	4
Niece	4	4	.....	.....	4	4
Total	1,208	1,145	113	105	1,321	1,250

TABLE SHOWING NUMBER OF DEPENDENTS WHOSE STATUS HAD CHANGED AT DATE OF INVESTIGATION.

Relationship to deceased.	Number married.	Number dead.	Number who had reached 18 years.	Number of posthumous children.
Widow	44	5	.....	.....
Daughter	6	5	24	9
Son	.....	4	36	9
Mother	.....	2	.....	.....
Father	.....	1	.....	.....
Sister	1	.....	1	.....
Brother	.....	1	1	.....
Granddaughter	1	.....	1	.....
Grandson	.....	.....	.....	.....
Niece	.....	.....	.....	.....
Nephew	.....	.....	.....	.....
Total	52	18	63	18

TABLE SHOWING AVERAGE AGE OF TOTAL DEPENDENTS IN 481 INVESTIGATED FAMILIES ACCORDING TO RELATIONSHIP TO THE DECEASED.

Relationship to deceased.	Number of dependents at—		Average age at—	
	Date of injury.	Date of investigation.	Date of injury.	Date of investigation.
Wife	418	423	33.3	40.2
Child	722	662	8.4	9.4
Father	7	6	41.7	42.3
Mother	26	24	61.5	63.9
Grandson	3	3	12.3	16.3
Granddaughter	6	4	13.3	12.5
Brother	4	2	11.5	12.0
Sister	15	14	13.9	19.9
Nephew	3	3	12.3	14.0
Niece	4	4	20.0	21.5
Total	1,208	1,145	.....	.....

TABLE SHOWING NUMBER OF DEPENDENTS IN 481 FAMILIES IN WAGE-EARNING OCCUPATIONS.

Relationship to deceased.	Number of dependents at—		Relationship to deceased.	Number of dependents at—	
	Date of injury.	Date of investigation.		Date of injury.	Date of investigation.
Widow	11	128	Brother	1	.....
Daughter under 16	1	1	Niece	1	.....
Daughter 16 to 18	1	5	Nephew	.....	1
Son under 16	1	11	Granddaughter	1	.....
Son 16 to 18	5	13	Grandson	.....	2
Mother	1	3			
Father	3	3	Total	26	169
Sister	.....	2			

It will be noted that 117 more widows were working at the date of investigation than at the date of injury; 80 of them had children. Ten sons under 16, which is the California compulsory education age limit, had gone to work after the death of the breadwinner. In connection with these statistics as to working it is interesting to find that

of the 418 widows, only 37, or 8.9 per cent, had had previous wage-earning experience or training. There would appear to be an abundant need for reeducation and rehabilitation in this field, in view of the fact that in an investigation of 428 widows it was found that only 44, or 10.3 per cent, had remarried.

LONE WIDOWS.

Of the 536 cases studied, 138, or 25.7 per cent, were widows with no dependent children. Of this latter number (138) 27, or almost exactly one-fifth, could have maintained themselves if they had received no death benefit at all. That is, they were able, on account of youth, ability to earn, or resources of their own, to get on without suffering financial hardship.

Of the 138 lone widows, 70, or a little more than one-half, found the death benefit conferred by the California law (three times the annual earnings) sufficient to tide them over their period of adversity. The weekly payments were sufficient in amount and they lasted long enough.

But of the 138 widows without other dependents, 36, or 26.1 per cent, found the weekly payments sufficient in amount, but insufficient as to duration. These women were either advanced in years, 16 of them being over 60 years of age, or they were infirm and so unable to care for themselves. Those over 60 needed a life pension of at least 50 per cent of their husbands' average weekly earnings. Some of them might earn something, and they would be the better for it if they were to do so, but the open labor market, in normal times, does not have much to offer in the shape of remunerative employment to untrained women of 60 years or over. Perhaps an extension of reeducation and rehabilitation to the widows and children of men killed in industry, which I strongly favor, might aid many widows, though advanced in years, to raise their standards of living through productively employing their time, but hardly to the extent of self-support. We have found a 40 per cent life pension for those totally and permanently disabled insufficient, and I am inclined to the opinion that it should be 65 per cent in such cases. If so, 50 per cent is not likely to be too much for dependent widows if crippled either by age or incurable disease.

The ages of these lone widows ranged between 20 and 75 years, the largest group falling between 45 and 55 years, and yet the average for all widows was found to be 33.3 years at date of injury.

In this group 75 were in good health on date of injury, 29 more were in fair health, but the health of 34 was so poor, because of some serious or permanent disease, as to incapacitate from earning. The largest number in poor health were between the ages of 50 and 55 years.

Eighteen of this group of widows had had previous experience in wage earning, but it happened that none of the women over 60 had ever had any such training. Only four out of the group were working at the time of the injury, but 48 had gone to work by the time the investigation was made. No widow over 65 was found working.

One hundred and thirty out of this group were maintaining separate family life at the time of the injury. At the time of the investigation only 74 of them still lived alone, the rest having gone to live with relatives or in other families.

Out of this group the husbands of only 43, or 31.2 per cent, left life insurance, 15 belonged to a lodge or a union which provided some death benefit, 62 owned property, but in 39 instances the property was mortgaged.

WIDOW AND ONE CHILD.

There are in our day not a few wives who, having experienced motherhood once, are strongly disinclined to repeat that experience. Anyhow, of the 536 cases studied, 106, or almost 20 per cent, were widows with but one child. Of this number 22, or about 20 per cent, would have gotten on without hardship had they received no death benefit at all. Sixty-one, or 57.5 per cent, found the death benefit sufficient to meet their reasonable needs, 20 needed the compensation for a longer time, and in one case, in which the basic wage was low and the mother in chronic poor health, not only was compensation needed for a longer time than four and a half years but in an increased amount per week. Those who found the death benefit sufficient, or could have gotten on without it, had resources of their own or relatives with whom they could leave their one child while they went out to earn a livelihood.

Of this group the greatest number ranged between 25 and 30 years of age, 68 were in good health, 28 in fair health, but 10 were in such poor health as to incapacitate them from earning. Eight had had previous experience in earning, 3 were working at the time of the injury and 34 at the date of the investigation. One hundred of these families were living in separate homes at date of injury, and only 54 at the time of the investigation. Thirty-four of the deceased, or 31 per cent, left life insurance, 9 belonged to a lodge or union that paid some death benefit, 54 owned property, but in 18 instances it was mortgaged. Seven had accumulated some savings.

I am far from holding that industrial widows having no children, or only one, should be cut off without any death benefit whatever, but it is clear enough that they do not need as much as do those who have families that require to have a home made for them that they may be reared properly. This need begins, I think, where there is more than one dependent child, especially if the children be young.

WIDOWS WITH MORE THAN ONE CHILD.

Of the 536 cases studied, 174, or 32.5 per cent, were widows with two or more dependent children, the largest number of children being 7 in seven instances, but the average number being a little over three—3.3, in fact. In only 15 of these cases could the families have gotten along without a death benefit without suffering hardship, and these were cases where there were only two children, the mother and children were in good health, the children almost old enough to earn wages, and the family had resources sufficient to tide them over until it could become self-sustaining.

In 67 cases, or 38.5 per cent, the death benefit met the need fairly well. In 92 cases, or about 53 per cent, the benefit was insufficient. In 59 of these families the weekly payment was sufficient, but the four and a half years' duration was not long enough, and in 33 cases neither the weekly payments nor their duration were adequate.

Of this group of widows with 2 or more children, 61 had 2 children, 56 had 3 children, 29 had 4, 10 had 5, 11 had 6, and there were 7 widows who had 7 children each. The greatest number of the widows in this group were between the ages of 30 and 40 years. The group contained 571 children.

One hundred and thirty widows in this group had good health, 38 others enjoyed fair health, and the health of only 6 was so poor as to incapacitate them from earning.

Eleven had had previous experience in earning, only 4 were working at date of injury, but 46 were working at date of investigation. Of these 46 who were at work, 16 had 2 children each, 19 had 3, 6 had 4, 1 had 5, and 2 had 7. Only 3 of the children were doing full-time work at date of injury, but at the date of investigation 25 were doing full-time work.

Any compensation law that forces women with three or more children away from home and into the labor market is not meeting the reasonable requirements of such an act of the legislature. The place for such a mother is at home, doing only such work in the way of earning as she can find time to do at home without neglecting her children.

Sixty-seven of the decedents in this group left life insurance. This is 38.5 per cent as against 31 per cent for the groups who left no children or only one. Furthermore, 81 of the decedents left property, but in 35 instances it was mortgaged. Forty-five per cent of the decedents who left no children left property, as against 46 per cent of those who left 2 or more children, from which the inference would seem to be reasonable that it pays to have children. This receives some added confirmation from the fact that of the decedent property owners who left no children 63 per cent left mortgages, whereas of those who left 2 or more children only 43 per cent left mortgages on their property.

All but two families in this group maintained separate family homes at the time of the injury. At the time of the investigation 140 were still maintaining separate family households. The others had broken up and were scattered among relatives or others.

HEALTH OF DEPENDENTS

The health of individual dependents was grouped under three headings: Good, fair, and poor. We had no medical records on which to base definite statements, and made the rough grouping from the statement of the individuals and the judgment of the investigator. In general, "poor health" indicated serious illness or a permanent disability so grave as to render the individual unable to perform his usual tasks. Persons in "fair health" suffered some illness or disability, but were able to lead a fairly normal though handicapped existence. "Good health" is self-explanatory. There is visible a definite lowering of health between the two dates, and, though the percentage is slight, it indicates a real danger. The total figures show 78.8 per cent of the dependents in good health at the date of injury, and 77.9 per cent in good health at the date of investigation; 12.5 per cent were in fair health at the date of injury and 13.4 per cent at the date of investigation. The figures for those in poor health are the same for both dates, 8.6 per cent. When one remembers that these figures include all ages and types of individuals among total

dependents, growing children as well as men and women of various ages, the seriousness of a 1 per cent decrease in the good health of the group becomes apparent.

HOUSING CONDITIONS.

Housing figures for the total dependents present another instance of lowered standard of living after the death of the breadwinner. At the date of injury 466 families were classed as living alone; that is, they maintained a separate family life as a unit. At the date of investigation only 291 of these were carrying on the home; 116 had gone to live with relatives, while 59 had joined forces with other families. None of the children, however, had gone into orphanages, a fact not easily accounted for.

STUDY OF 120 COMPLETED CASES.

Of the 536 cases which were studied, 120 had received the entire compensation. We therefore made a separate study of them, thinking that they might give information which would be a forecast of conditions in the whole group at the end of the compensation period.

Of the 120 decedents, 22 left a widow only, 19 left a widow and 1 child, 5 left a widow and 2 children, 11 left a widow and 3 children, 3 left a widow and 4 children, 8 left a widow and more than 5 children, and 52 left other dependents.

In the group of 120 families there were 283 dependents, grouped according to relationship as follows: Widows 68, children 119, fathers 21, mothers 38, grandchildren 4, brothers 13, sisters 18, nieces 2. The average age of the widows was 40.7, while the average age of the children was 8.9.

At the date of injury, 41 widows were in good health, 18 in fair health, and 9 in poor health. At the date of investigation 40 were in good health, 19 in fair health, and 8 in poor health; 1 widow had died.

At the date of injury, 66 of the 68 families consisting of widows, and widows and children, were living alone. At the date of investigation only 47 of these still maintained a separate household.

Of the 68 widows, 9, or 13.2 per cent, had remarried. Three widows were working at the date of death and 21 were working at the date of investigation.

Thirty-one of the 120 decedents carried life insurance, while 17 belonged to a lodge or union which provided death benefits.

Sixty-four families possessed property at the date of death, while 71 held property at the date of investigation. Of the 64, 30 carried mortgages at the date of death. Of the 71 who held property at the date of investigation, 13 carried mortgages on it. These figures correspond with the information concerning lump sums received by these families. Lump sums were granted in 35 of the 120 cases. Seven wanted to buy property and 16 wanted to pay off mortgages. One family raised the mortgage without asking for a lump sum.

Figures concerning finances at both dates are most interesting. At the date of death, 120 were receiving the wage of the decedent and 3 families were also receiving the wage of the wife; in 27 families (those of other dependents than widows and children) another mem-

ber of the family was contributing; 7 families received income from property; 5 kept boarders and roomers; and 1 received aid from a relative.

The figures for the income at the date of investigation are very different. Compensation had ceased in all of these families. Twenty-one were receiving the wage of the widow; 63 were receiving income from other members of the family; 20 were receiving income from property; 20 were keeping boarders and roomers (which has the same effect as produced by a widow going out to work); 12 (all families of widow and children) were receiving half-orphan State and county aid; and 10 were receiving aid from relatives. A total of 22 families out of the 120, or 18.33 per cent, were depending wholly or in part on public or private charity for their support, a condition that should be regarded as intolerable under any compensation law.

SUMMARY OF INVESTIGATION.

If we may summarize the results of investigating 536 families who had received death benefits under the workmen's compensation, insurance, and safety law of California, it would be as follows:

Not indispensable in	74	families, or	13.8 per cent
Adequate for reasonable needs	260	families, or	48.5 per cent
Payments needed for a longer time	151	families, or	28.1 per cent
Payments needed in larger amounts and for a longer time	42	families, or	7.8 per cent
Information inadequate	9	families, or	1.7 per cent
	536		99.9

It was the conclusion of the investigators that the death of the workman, notwithstanding compensation benefits, has practically always been followed by a decided lowering of the standard of family living and, probably, in about one-third of the cases, has subjected the dependents either to deprivation and hardship or dependence, in part, at least, upon public or private charity.

It will, I trust, be the continuous policy of the California commission to get in touch with, and follow up, all families made dependent through industrial injury, to the end that the commission, legislature, and general public may be kept informed as to how the compensation law is working out in actual experience, for in no other way can it be known whether or not the law is rendering a service at once adequate and yet not productive of more of mendicancy and industrial helplessness than it has prevented. There is nothing more easily spoiled by mistaken kindness than a human being.

OUGHT DEATH BENEFITS TO CEASE ON REMARRIAGE?

The issue is debatable. Eleven of our States have answered in the affirmative as to the widow herself and eight more have carried that affirmative to the extent of cutting off compensation to the children as well as to the mother. I can not think this defensible on any ground, and the wisdom of cutting off payments from the widow is questionable, whether viewed from the standpoint of justice or of sound public policy.

It has come to be almost proverbial to say that widows are more easily disposed of, matrimonially speaking, than single women, but

our investigations do not support this assumption. Our California workmen's compensation, insurance and safety law has been in operation nearly seven years and during this period, of 428 women who were made widows by industrial injury whose history has been investigated, only 44, or 10.3 per cent, had remarried at the time of investigation, 28.7 months after the death of the husband. No similar group of eligible maidens has suffered so adverse a selection, and yet the California law does not terminate the death benefit on remarriage.

Of 209 women who had been widowed two years only 1.9 per cent had remarried. Of 315 who had lost their husbands three years before only 5.8 per cent had remarried, and at the end of four years, of 386 industrial widows whose histories were obtained 348 were still unmarried. Of 68 widows who had received the full death benefit only 9, or 13.2 per cent, had remarried.

These investigations would seem to show that cutting off death benefits to widows on remarriage can have only a slight effect on insurance rates. Nor is it perfectly clear that such remarriages should be encouraged by cash-in-hand bonuses. We are accustomed, when applications for lump sums come in, to inquire carefully in order to ascertain if there be some lazy lout of a man in the background waiting for the deal to be put through as a condition precedent to securing a marriage license, and if such a one be discovered the lump sum is ordinarily not allowed. In at least one case the lump sum and the new husband departed on the same train.

Another fact worthy of note is that under a court decision, in New Jersey I think, it has been held that lump-sum commutations can not be allowed where death benefits are terminated on remarriage lest the beneficiary first secure her commutation and then marry, thus defrauding the employer or insurance carrier.

The California commission does not allow commutations of death benefits merely for the asking. It must be shown very excellent reasons why, such as to pay off a mortgage on a home or to acquire one or so to improve a property as to make it income producing; to start in some little business that bids fair to yield a livelihood; to go to a former home either in another State or to a foreign country.

Of the cases under investigation 174 total or partial settlements have been allowed and the event has, so far as we have been able to learn, justified the exercise of the discretion vested in our commission. To have been debarred from making such commutations through fear that some of the widows benefited might marry before the compensation period expired would have worked an undeserved hardship upon at least 174 out of 428 worthy women. Besides, the insurance rates are high enough in this State, and very likely in all others, to warrant the payment in all cases of death benefits for at least four and a half years after the death of the employee. Of course in States where, but for remarriage, the death benefit to the widow would constitute a life pension some equitable arrangement should be made on remarriage, but life pensions to widows are necessary only in those cases where they are too old to hope to develop an earning capacity or are suffering from chronic invalidism, in which events they are not very eligible for matrimony.

I have my doubts also if, for sociological reasons, the State should go out of its way to encourage the remarriage of industrial widows

who have children to rear. For one period of two years of my life I was brought into close touch with the problems of criminality and juvenile delinquency, and in not a few instances the first step taken on the wrong path was taken on account of the existence of an unloved stepfather or stepmother. I doubt if second marriages average fortunate, especially where there are two broods of children to be reared together.

On the whole I am rather strongly of the opinion that if death benefits are to be made terminable before death it should be for other and better reasons than that of remarriage, except in the cases of widows without children.

TABLE SHOWING NUMBER AND PERCENTAGE AND CUMULATIVE NUMBER AND PERCENTAGE OF WIDOWS WHO REMARRIED WITHIN TWO, THREE, FOUR, AND MORE THAN FOUR YEARS AFTER THE DEATH OF THE EMPLOYEE.

Time elapsed since death.	Number of cases investigated.	Number of widows remarried.	Per cent of widows remarried.	Cumulative number remarried.	Cumulative per cent of total remarried.
Up to 2 years	209	8	3.82	8	1.869
2 to 3 years	106	17	16.03	25	5.840
3 to 4 years	71	13	18.30	38	8.878
Over 4 years	42	6	14.28	44	10.270
Total	428	44	.....	.....	.....

LUMP-SUM PAYMENTS.

The experience of the California commission in making commutations of death benefits, in whole or in part, may be of interest. Our records show 196 such commutations. In 20 instances advances were allowed from time to time in varying sums in order to meet special needs. In other cases the commutations were allowed in considerable sums, the total for all such advances being $195,654.69, the average payment being $998.23.

The purposes for which these commutations were allowed were as follows:

To buy homes	23
To pay off mortgages	20
To repair homes	11
To pay pressing debts	32
To supplement insufficient weekly payments	12
To pay debts due to illness in family	10
To pay funeral expenses in excess of $100 allowance	8
To start in business	9
Compromised settlement agreements	40
To leave the State for a former home	9
To reinvest at a higher interest	3
To pay for an education	1
To send money to dependents in foreign countries	9
Cases in which records do not disclose reason	9
Total	196

Of the foregoing, 64 payments covered the total death benefit, 97 were partial payments on account, and 35 were partial but also final, closing out the account.

Under a strict construction of an act terminating death-benefit payments on remarriage of the widow, many of the foregoing commutations would have had to be denied, thus working undeserved hardship.

SOME BASIC CONCLUSIONS.

Before suggesting a schedule of benefits it seems necessary to determine the obligations of industry toward the dependents of those whose lives are sacrificed to industry.

If the term "compensation" shall ever come to mean what the word should imply, then dependents will be made whole, at least for their pecuniary loss. In that day dependents will be compensated in accordance with the capitalized value of the life of an employee at the time of his death. In other words, the dependents would be paid such sums as represent the annuity value of the life at the date of death. This would constitute no small payment.

For instance, for the death of a man 25 years of age, and earning $4 per day, the capitalized value would be $24,528; at 40 years of age it would amount to $20,940; at 60 years the payment would be $13,236. In arriving at these sums the expectancy of life of each employee was considered. We are far from such a standard of payment, and until "compensation" comes to mean what it says, we can not legislate on the theory that compensation supplants wages and the industry should do, in a financial way, for the family what the deceased employee would probably have done if he had lived throughout his normal expectancy of life. We must therefore content ourselves with something less than this.

The foregoing conclusion being acceptable, I know of no better standard by which to measure death benefits than by meeting the reasonable needs of the dependents for placing each of them upon a self-sustaining basis.

This should be done by allowing a certain percentage of the wages of the deceased employee to his widow for such a time as, having due regard to her age and state of health with respect to any chronic, incurable disease from which she may be suffering, will either sustain her or enable her to sustain herself without being the recipient of public or private charity. To this should be added a reasonable allowance for each dependent child up to the age of earning in all cases, which may be taken at 16 years, with two years added in those instances where such children are in attendance upon some school of preparation for something better paid than unskilled labor. More than this can not now be asked for. Less than this the industrial workers should not tolerate.

Some commutations and final settlements should be allowed where lone widows remarry, perhaps one or two years' compensation, but this should not be permitted to bar the way to making advances and commutations for other purposes, in the discretion of the board or commission administering the law.

There should be a burial allowance, not exceeding $150, in all cases and in addition to all other death benefits, and likewise the reasonable cost of making good the claim of a dependent to receive a death benefit, such allowance to be fixed by the administrative body.

There should be no restriction of dependency to within definite degrees of relationship, but the fact of dependency, and degree, should be in each case determined as the fact may be at the time of the death.

Payments to other than widow or children should be determined as the facts may warrant at the time of the death, being guided by

what the reasonable expectations as to the continuance of support would have been had the employee continued to live.

Life pensions should be allowed to those only who, at the time of the death, are, or soon will be, too old to be capable of sustaining themselves or who are the victims of chronic and incurable diseases which incapacitate them from earning.

The reeducation, rehabilitation, and placement of dependents is as essential to the well working of a compensation law as in the cases of workmen permanently crippled, and should be provided for either in the death-benefit law itself, or by some auxiliary source of income.

The savings, properties, and other personal resources of dependent widows and children should not be taken into account in fixing the amount of the death benefit payable. The benefit to them must be a matter of right and not of charity.

The largest latitude obtainable should be allowed the administrative body in apportioning death benefits, to the end that the need of each may be met as closely as possible. No inflexible statute can meet the requirements more nearly than blunderingly well. Of course it would be preferable to treat each individual dependent strictly in accordance with the particular needs of such dependent, but no legislature would be willing to confer upon a board or commission the distribution, at its discretion, of an entire death-benefit fund. The most that can be hoped for is that some leeway may be allowed as between dependents in the same family, in order the better to meet their individual requirements.

Whatever is allowed a widow should be allowed a dependent widower under similar circumstances as, in the homes of all workingmen, whenever either the father or mother is removed through death, whether by industrial injury or disease, such death becomes a catastrophe and involves poverty and family disaster.

Compensation, whether in the form of a disability payment or death benefit, is insurance, an insurance which the State requires the employer to assume for its own protection as well as for the protection of dependents, and if the State would be adequately protected from the consequences of poverty resulting from industrial injury, such insurance must be more nearly adequate than is customarily provided by the heads of workingmen's families themselves.

CLASSIFICATION ACCORDING TO NEED.

It is matter for regret that we have not been able, in this investigation, to cover a larger proportion of the families of California made dependent through industrial injury, but the data we now have must serve as a foundation for certain conclusions to be drawn with relation to the reasonable needs to be covered by death-benefit provisions in compensation laws. The first step must be to classify dependents with regard to their reasonable needs. Under the California law there is but one class of total dependents, except that where there are more than one such dependents a very considerable latitude is given the commission in the distribution of the fund. By classifying we ameliorate the extremes that would otherwise exist and make them more nearly approximate the average need. The classification of total dependents I would suggest would be as follows and for the reasons stated:

DEATH BENEFIT SCHEDULE.

1. A widow who at the date of injury is mentally or physically incapacitated from earning, by reason of a chronic disease or disability, 40 per cent of the average weekly earnings of her deceased husband for life, or during the continuance of such incapacity.

2. A widow 60 years of age or over at the time of the injury, 40 per cent of the average weekly earnings for life.

3. A widow under 60 years of age without dependent children and not incapacitated from earning at the time of the injury, 40 per cent of the average weekly earnings of her deceased husband for two years, and thereafter upon attaining the age of 60 years without having remarried, 40 per cent of such average weekly earnings for life.

4. A widow under 60 years of age with dependent children, 40 per cent of the average weekly earnings of her deceased husband during the dependency of such children. At the end of such dependency, 40 per cent of such earnings for two years, and thereafter upon attaining the age of 60 without having remarried, 40 per cent of such average weekly earnings for life. To dependent children with a dependent widow, 15 per cent of the average weekly earnings of the deceased employee for one such child, 25 per cent for two, and an additional 10 per cent for each additional child, the total compensation to be limited in all such cases to 100 per cent of the average earnings of the deceased. If such widow shall remarry during the dependency of such children she shall receive two years' compensation in a lump sum in lieu of further payments, but without prejudice to the compensation of the children.

5. Upon remarriage of any widow in possession of a life pension such pension shall cease and in lieu thereof two years' compensation shall be paid in one lump sum.

6. Upon the death of any widow with dependent children the compensation allotted to the widow shall cease, but the allowance to the children during the period of such dependency shall be in accordance with the paragraph next following.

7. If a deceased employee leaves dependent children, but no widow, 25 per cent of the average weekly earnings for one child; 40 per cent for two children, with 10 per cent additional for each dependent child thereafter, subject to the maximum of 100 per cent.

8. In all cases where there are dependent children the termination of the dependency of any child shall reduce the amount of compensation payable to the amount specified for the remaining children.

9. The provisions appertaining to dependent widows shall apply likewise to dependent widowers under similar circumstances.

10. Dependents other than widows, widowers, and children shall be compensated according to the facts of dependency as the facts may exist in each case at the time of the injury of the deceased employee, allowances to continue according to the probability of their continuance if the employee had not been killed.

11. Children are to be regarded as dependent until 16 years of age, except that if they are in regular attendance upon a vocational school or high school, or are serving an apprenticeship with the view of learning a trade, or are in any way learning an occupation with the purpose of developing a self-sustaining earning capacity, the age

of such dependency shall be extended during such apprenticeship or attendance to 18 years.

12. Dependency provisions as to children shall likewise apply to posthumous children.

13. In the event of the death through industrial injury of an employee who is a minor and who has contributed to the support of the family the measure of such dependency shall be the amount annually contributed to such support without deduction for the support of such deceased minor.

14. The insanity of the surviving parent shall be regarded as equivalent to the death of such parent during the continuation of such insanity, and the distribution to dependent children shall be the same as in the case of the death of such surviving parent. The same rule shall apply in case the surviving parent has been committed to prison on a felony charge during such imprisonment.

15. No person shall be considered a dependent of any deceased employee as a member of the family or household of such employee unless such membership in such household shall be lawful and in good faith.

16. The jurisdiction of the commission over controversies arising out of awards of death benefits shall continue during the period for which such benefits run, and awards shall be made in all cases involving dependency as the result of deaths from industrial injuries.

17. Subdivision (c) of section 14 of the workmen's compensation, insurance, and safety act shall be repealed.

The cost of the foregoing schedule will be 3.73 times the average annual earnings, including all who are killed in industry, whether or not they leave dependents.

To this it is proposed to add $950 per death to cover the following benefits, exclusive of other compensation benefits:

Burial of the deceased workman	$150
Rehabilitation of crippled workmen	350
Rehabilitation of dependent women and children	250
Life pensions for those sustaining multiple injuries at different times and in different employments	100
Supplemental compensation benefits for aged injured, designated as "down and outs"	100

This will add 0.8, making an aggregate of 4.53 times the average annual earnings; administration and to cover possible unfavorable experience, 0.47; total, 5 times the average annual earnings of all workmen killed in industry.

It is contemplated that these death benefits will be due and payable to the State compensation insurance fund at the time of making the award and that awards will be made in all death cases, but if employers and insurance carriers so desire they may make these payments in five annual installments, with interest at 4 per cent, the first payable at the time of making the award.

It is estimated by our consulting actuary that this schedule will increase insurance rates about 22 per cent, of which 12.3 per cent would cover the added cost for death benefits.

Upon further reflection it has seemed preferable, at least in California, to provide for supporting the safety department by a tax levied upon all employers and collected through insurance carriers

and self-insurers, equivalent to 2 per cent upon the net premiums paid for insurance coverage.

HOW THE DEATH BENEFIT FUND IS TO BE RAISED.

Having first determined how the compensation death-benefit fund is to be apportioned among dependents, it becomes important to consider how the fund is to be provided.

It may be said that there is an ideal way and a practical way that is not ideal. In such case society generally takes the direction of least resistance and follows the practical way for a thousand years or so before even approximating to the ideal, and I fear that this will be done in this instance.

There are two points of vantage from which to view the relation of the employer to the deaths which occur in, and arise out of, his industry:

1. From a standpoint of his obligation to the dependents of the deceased employee.

This is a heritage from the law of liability in damages which involved a direct and personal obligation to those who had been wronged through the employer's want of reasonable care, and the practical method of providing death benefits is to make the employer the personal insurer of such dependents, the amount of the insurance to be dependent upon the extent of the reasonable needs of each several dependent. Under such a system the employer, if a self-insurer, will tend to discriminate in favor of those who, in the event of industrial death, will leave the fewest dependents or none at all. Whenever industrial conditions are such that there are five jobs and only four men available for them, such discrimination is not often observable, but when, as in normal times, there are only four jobs and five applicants for them, the tendency becomes very manifest. Not that men are bluntly refused jobs because they have families, but they are told that if they are wanted they will be notified of the fact, and they are not notified. No explanations are made or needed. If such discrimination against family men is to be avoided we must, I think, substitute a public relation between employer and the death-benefit fund for the private one now predominantly existing. This brings us to a consideration of the second point of view.

2. From a standpoint of the employer's obligation to the State.

This also involves a basic principle upon which compensation is founded, that the obligation to pay compensation is not so much one resting upon the employer himself as upon the industry in which he is engaged, he being only the instrument through which the burden is passed on to the consuming public by regarding industrial injury and death as a part of the cost of doing business, to be added with other items of cost to the high cost of living which all consumers must share.

Looked at from this standpoint, the death-benefit fund becomes an insurance fund to which each employer contributes premiums based upon the comparative hazards of his industry, and it becomes immaterial to him what particular dependents receive the particular moneys that he pays into such fund.

This public relationship is strengthened by a further consideration. The economic welfare of every community or State is directly

dependent upon the quality and quantity of effective workers available for industry. Every worker becomes an asset whose value is expressible in dollars, and when anything can be expressed in dollars we Americans are popularly supposed to be able to comprehend what is meant. That is, every worker has a capitalizable value. If I understand it aright, such value equals a sum of money which, placed at interest at a given rate, will yield a weekly wage identical with that received by the worker at the time of his valuation during his productive lifetime as determined from mortality tables, thus consuming both principal and interest, leaving nothing.

Whenever a workman is killed in industry the State, as an organic community, has suffered a loss equal to the capitalized value of such worker, and when compensation comes to be in fact, what it falsely purports to be in theory, a real compensation for what is lost, that will be the measure of the bill which the State will render to the industry every time a life is sacrificed to industry; but that will happen about the time that society takes from the owner of real estate the entire increment of value due to increase of population and therefore unearned by the owner. Meantime society will do well to take so much of both unearned increment of real property and the capitalized value of the victims of industry as will meet the reasonable needs of society and of the wards of the State, as dependents all are.

Belgium is the only country that does this. It somehow started right, but modestly assessed the employer only to the extent of 30 per cent of the capitalized value. What percentage of such value of the workmen killed in California would meet the requirements of the schedule of death benefits I have proposed I am not at this time able to say, but hope to be shortly, and to make the estimates available as an appendix to this paper.

It would not be indispensable, if such a plan were adopted, that employers and insurance carriers should be called upon, as in Belgium, to pay the assessment into the State treasury in a lump sum. It could be paid in in reasonable installments in order to keep ahead of the need, security being given to insure such payment, although it would probably be better to have death benefits paid in lump sums into a special fund and disbursed therefrom. That would be no hardship to an insurance carrier nor to a self-insurer strong enough to be permitted to be his own insurance carrier. Where there are State compensation insurance funds, as there should be in all States, such fund can be utilized to collect and disburse the benefits covered by this source of compensation revenue, which brings me to a consideration of what these benefits, in my opinion, should be.

NEEDS TO BE MET.

Aside from a death benefit payable out of the common fund above provided for, sufficient for meeting the reasonable needs of the beneficiary for support, we must, I think, provide out of this fund for the reeducation, rehabilitation, and replacement of such dependents in industry. This has a direct and immediate concern for those engaged in industry, to the end that there may be maintained an available supply of trained labor to enable them to carry on their industries.

Then there is a need for State supervision and education in industrial safety. Our California commission has, from the first, insisted that the most important function it could perform was in assisting employers in making their employments and places of employment safe, but we can do only a part of what desperately needs to be done for want of money to pay for the work. What better use could be made of a portion of the capitalized value of this life of an employee sacrificed to industry than to devote it to making employments safe, to the prevention of the loss of other lives?

In the Newman case the highest court in the State of New York held that a law that assessed $100 upon the employer of each workman who was killed and who left no dependents (the money to be used in providing life pensions for those who sustained multiple injuries at different times and in different employments) was constitutional and valid. We are strongly hoping that the Supreme Court of California will permit itself to be guided to the same conclusion by the decision of the New York Court of Appeals, for our rehabilitation measure, popularly known as our "Three hundred and fifty dollar bill," is dependent upon the establishment of the same principle. At all events, every employer who suffers the loss of the life of a workman in his industry is as directly interested in "safety first" work as he is in the support of the dependents of the deceased workman.

Besides, those who have suffered multiple injuries at different times and in different employments are in need of life pensions as certainly as others who have received such injuries in one and the same accident, and so are eligible to be pensioned, while they are not. There are still others whom compensation laws do not adequately cover. I have in mind those mainly who, having suffered serious injury and recovered therefrom in a physical sense, are, nevertheless, by reason of age and a general impairment of the vital forces, unable to "come back." Prize fighters who held championships at 25 or 30 are unable to "come back" at 40, and so men who at 65 suffer a fracture of the femur may have the bone knit and be able to walk without a crutch or cane, but, having spent the better part of a year in bed or lounging about hospital or home, they are unable to resume their former employment and need a life pension as certainly as a widow too old to develop an earning capacity, and yet it may be doubted if such a pension could be granted under the disability provisions of a compensation law when there is no disability except the precipitation of a superannuation that otherwise might have been indefinitely postponed.

PROPOSAL SUMMARIZED.

If I may, in briefest statement, recapitulate the burden of my perhaps too extended paper, it is in the form of the following propositions:

1. Assess the industry, through the employer or his insurance carrier, a certain changeable proportion of the capitalizable value of every workman who loses his life by injury arising out of and happening in the course of his employment, without regard to whether or not he leaves any dependents, the same to be covered into a general death-benefit fund.

2. Out of this fund should be paid, first, benefits sufficient for the reasonable needs of all persons dependent upon workmen who lose their lives in industry, without particular regard to the dependents of any special workman.

3. An allowance should be made from this fund, in addition to that required for support, to be expended under the guidance of the administrative authority, for the industrial rehabilitation of the dependents of deceased employees.

4. A specific and liberal proportion to be expended for the promotion of safety in industry to the end that as few workers as possible may be either killed or injured in the course of their employments.

5. An adequate proportion of such capitalized value of sacrificed lives to constitute a general fund for the reeducation, rehabilitation and placement of all persons injured in industry.

6. A percentage to be available for the payment of life pensions in cases where the injuries would warrant it, but the workman is ineligible for it by reason of having sustained such injuries at different times and in different employments instead of in a single, compensable injury.

7. An allowance for those who, having sustained severe injuries and recovered therefrom so far as healing of their wounds is concerned, are, nevertheless, by the precipitation of the senility of age as a result of the injury, unable to resume their former employments.

In my judgment, such a policy as I have here outlined would, if once embodied in effective law, reduce the number of industrial injuries and deaths to a minimum and make the compensation system as complete as it is humanly possible to make it without putting upon industry any burden that it can not and ought not to bear.

It will be of interest to note what the income would have been from this source if, for the year 1919, employers and insurance carriers had been assessed for the full capitalized value of the 586 lives sacrificed in industry in this State during that year. The average age of those killed was 34 years, the average weekly wage $28.75, or $4.75 daily wage. The total capitalized value of these lives to this State, taking into consideration their expectancy of life but for accident, was $11,489,961.73, or an average annuity value of $19,607.44.

When "compensation" comes to be compensation in fact, that will be the measure for determining the value of the lives sacrificed in industry, and if that measure were applied at this time there would be realized from death claims not only more than enough money to cover all reasonable requirements outlined in this paper, but at least two or three times over. I think this is the end toward which we should work, and that we should begin now. I am not able at this time to set over against this source of income a dependable estimate of the requirements above set out, but hope to have the information in shape at an early date, and to be able to send to all members of this association a brief summary of the facts.

The CHAIRMAN. The next subject under discussion is "How to secure full legal compensation to injured workers." We have a letter from Mr. Archer, expressing his regret that he can not be present, and sending his paper, and with the permission of the conference I will have it printed in the official record.

HOW TO SECURE FULL LEGAL COMPENSATION TO INJURED WORKERS.

BY W. C. ARCHER, DEPUTY COMMISSIONER IN CHARGE OF THE NEW YORK BUREAU OF WORKMEN'S COMPENSATION.

It will be pardonable at the outset to say that I am familiar, through a large experience, with the various alternative methods of securing compensation to injured workers, among them (1) that of proving cases on paper under State fund and under carriers for profit; (2) the referee system (in fact, if not in name), where certain and not all cases are heard; (3) the agreement method, where only those are heard in which questions arise subsequent to the making of the agreement; (4) the dual plan of part claims and part agreements, certain of both kinds of cases only being heard; and (5) that of hearing all cases. My experience has been in the metropolitan area of New York City, in the outlying districts of New York State, and in Ohio. I have had no experience in a system in which there is a compensation statute prescribing rights of employees and employers, with no prescribed system of administration, but in which the courts are resorted to. I am confident that the one and only dependable method is that of hearing all cases in an actual open trial of the case, or its equivalent, through actual contact with the claimant before his case is closed.

In large cities and towns it is quite practicable to have tribunals which may inquire into all cases and attendance before which will occasion the minimum loss of time and expense. Indeed, we should be thankful for any plan that will prevent the loss of wages through time lost in attending hearings, and this also for the further reason that the employer probably loses more money than does his workman who leaves his machine idle. If the place is not large enough to justify a permanent tribunal, then through a system of referees or deputies all requirements may be met through the periodical visitation of a hearing commissioner. In outlying districts regular traveling circuits may be established which will bring to all parties the opportunity for convenient judicial determination of cases, or local appointees may be named who will take care of all simple cases, and this either on a fee or salary basis, and the more difficult cases can be heard by a visiting referee or deputy, who will come at such intervals as may be required. All this keeps in mind the one requirement of personal and official contact with the case itself. So far as I know, for the outlying and smaller places there has not been tried the plan of appointing local officials, who would have their commissions from the State and who would receive a fee for handling each case, with provision for a modification of the fee according to circumstances. A careful selection of such persons would secure that degree of integrity and sound judgment which would guarantee the proper disposition of the great majority of cases.

With the system of actual contact working, parties in interest would in advance do those acts which would fulfill the law or closely approximate fulfillment, for any attempted evasion would be futile in the light of the later review of the case, and thus the plan itself tends to remove difficulties. There will always be large numbers of cases which require the most painstaking investigation because of difficult questions of law and fact, and the only method in these cases is the open hearing, with witnesses, etc. By the contact method full legal rights may be secured under any statute, but the first step to be taken toward ease of administration in those jurisdictions in which profit-taking concerns are authorized to deal in workmen's compensation insurance is to eliminate such concerns from the game. Else any proper administration calls for the expenditure of too much effort to build up an offensive and defensive organization against those who reap profit out of it. Traffic in distress is not a legitimate field for money making.

The point emphasized throughout this paper is that nothing shall be taken for granted and that cases shall not be closed on paper. With this requirement fulfilled, it is conceivable that the methods of doing so may differ and may profitably be different according to the place and the various circumstances.

In most jurisdictions the agreement plan obtains, in which the commission is notified of an accident and that the compensation requirements with respect to the payment of money have been fulfilled. There may be a number of papers in the case all pointing to the fact of fulfillment. In such jurisdictions disputed cases are the contact cases and are disposed of through investigation or trial as the circumstances may require. To say that this plan secures full legal compensation is to me to voice an absurdity. To believe that such a plan meets the ends of justice is mere fatuity. An open-eyed straightforward investigation of even 1,000 cases will show the advocates of this plan that they have but fondly cozened themselves. And especially where profit is to be made through "thrifty" settlements, to think that universal honesty prevails is to denote simplicity making for a rude awakening.

It may be objected that claimants will lose time in attending cases in which it will be found that they have received full compensation. This is so; but assurance of full compliance with the law's requirements can not be had without some disadvantages here and there. The same argument might be made against the creation and exercise of a number of governmental agencies, for in many of them it can be said that their functioning must inconvenience certain citizens. The hearing may be noticed for a given hour or its time set for a forenoon or an afternoon, so that a whole day will not be lost. In large centers it would not require an expensive program were investigators provided in sufficient numbers that they might in the simpler cases visit the injured workmen at their homes or, after they had returned to work, in their factories. This would eliminate the necessity of lost time on the part of the workmen.

The agreement method with which to begin a case might be left undisturbed, for it allows the employer and the workman to pay and to receive compensation money at an earlier date than any State machinery could bring about. For this purpose I would say that it

has merit. I do not find myself responding, as I did of yore, to the clamor for speed on the part of those who actually know little or nothing about the situation. Speed is desirable. More speed is desirable. But certainty and accuracy are desirable too. And it should not be difficult for workmen during the first two or three or four weeks of their disability to secure credit for groceries, meat, rent, etc. Besides there are but few workmen who have actually at any given time no money at all. In New York workmen receive money before awards are made. Employers and insurance carriers are finding it wise and economical to handle cases without delay. Early and adequate medical treatment reduces cost. If the utmost speed is to be obtained, let it be obtained through legislation compelling employers to keep injured workmen on their pay roll for a limited period after accident, within which the State may act to make its awards.

I take it that little or nothing needs to be said about the court system, for that is utterly inadequate to meet the situation. Courts have the tradition of delay, of looking upon all matters before them as adversary proceedings, of feeling that attorneys are needed. They are also unable to throw off the intricacies of technical procedure, in the mazes of which justice is so often lost. The court system is also expensive.

Finally, I would respectfully urge a forthright investigation in every jurisdiction of actual claim settlements, in order that proper remedial measures may be recommended and put into effect.

The CHAIRMAN. Mr. Kennard, of the Massachusetts board, is not here, but Mr. Gleason is here and will respond to that subject.

HOW FULL COMPENSATION IS SECURED TO INJURED WORKERS IN MASSACHUSETTS.

BY CHESTER E. GLEASON, MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

This statement and the attached selection of some of the important form letters used by the Industrial Accident Board of Massachusetts will explain the method by which this commission administers the workmen's compensation act. During the last statistical year (July 1, 1919, to June 30, 1920) a total of more than 190,000 reports of injuries to employees were filed with the board. Each of these reports is time stamped as of the hour and date of receipt and is then turned over immediately to the index clerks for numbering and indexing. The reports are received, stamped, numbered, and indexed in the same division and room, and there is no likelihood of any report being mislaid or lost under this system. The reports are indexed in duplicate, the original card going into the employee's file and the duplicate card into the employer's file. A double index system is necessary in order to locate reports with exactness and promptness. There are so many foreign names and so many ways of spelling them that if the double index system were not in use, it would be impossible to locate a large volume of these reports, and the work of administering the law would be hampered. If, for example, a claim for compensation is filed and we are unable to locate the report under the name of the employee, as written by him, the employer's file can be referred to, and by turning to the reports on the date of the injury to the person claiming compensation the required report can be found. Thus the double index system is justified.

When a report is indexed, it is checked to note important omissions, and a blank report form bearing the number of the original on file with the board, checked to indicate the spaces which must be filled out, accompanied by a form explaining the necessity for filing the required information, is forwarded to the employer; and a follow up is placed upon this report, so that the required information will be forthcoming. All reports indicating disability beyond the day of injury are referred to a clerk who writes the employee briefly, advising him of his rights under the law, and asking him to communicate with the board if he is incapacitated for a period of more than 10 days and compensation is not paid when due. All reports of injuries, except fatal injury reports, or reports indicating the necessity for further special attention, are then filed until required for attaching to claims and agreements to pay compensation, or for the final follow up of the board at the end of 60 days after the injury, or for any purpose under the law. All fatal injury reports and reports indicating disability to minors and young and

inexperienced workmen under chapter 236, Statutes of 1915, are referred automatically to the inspection division of the board for full investigation and a report as to the rights of the parties under the act. These cases are followed up until final action in the form of proper agreements or a decision following formal hearing is had.

The board has an understanding with all insurers that they shall, in every case of reported injury where incapacity for work extends beyond 10 days, where compensation is not paid, make a report to the board by letter, giving the reasons for failure to pay compensation. Whenever for any reason an insurer fails to furnish this information to the board the insurer is reminded of this outstanding agreement and requested to explain. With employees well educated as to their rights under the law, with nearly 300 members of the legislature in touch with every case of serious injury, and making frequent visits to the office of the board in regard to the compensation rights of their constituents, and with the board and its inspectors constantly having specific cases in charge, there is little, if any, likelihood of any case of reported injury getting away from the industrial accident board.

Agreements come in daily from insurers at the rate of more than 100 per day, and these are promptly attached to the report of injury, the compensation rate checked up against the reported average weekly wage, which is the basis of compensation, and if there is any discrepancy both insurer and employee are notified by mail of such discrepancy. If the variation can not be adjusted promptly by mail so that the record is correct and the compensation agreement in accordance with the act, the papers are referred to an inspector for full investigation and report.

The record is surprising of the results that can be accomplished by correspondence with reference to the straightening out of irregularities and discrepancies. For example, a report of injury gives the average weekly wage of an employee as $24, indicating the payment of the maximum weekly rate of $16 as compensation. The agreement comes in at $14.50 per week, based upon an average weekly wage of $21.75. The insurer is written to, copy sent to employee, and the employer also is written to for the purpose of ascertaining the correct earnings of the employee for the full year preceding the date of his injury. Information comes back from the insurer that the employee had received $24 only since the last advance, three months prior to the injury, and that before that time his weekly wages had been $21.50. The wage statement from the employer, however, giving the wages of the employee week by week for each week of the 52 prior to the injury showed that for a period of 3 weeks during that time the employee had been out because of illness, and that he earned for 37 weeks of the period $21.50 per week and for 12 weeks immediately preceding the injury $24 a week. The employee's average weekly wages under the Massachusetts law therefore were $22.11. The compensation rate was $14.74. (The average weekly wages of the employee are found under these circumstances by dividing the amount earned by the employee during the year preceding his injury—$1,083.50—by 49, the number of weeks actually employed in that year. The result is as stated, $22.11.) Should the employer or insurer fail to give full details, as required, by mail, the case is then

referred to an inspector, who will get the information from the books of the employer. This is the process followed in all cases where disputes arise which can not be determined by the use of the mails or telephone. If an attempt was not made to adjust difficulties by mail a larger force of inspectors would be necessary, with consequent increased expense to the Commonwealth.

Employers are required to file supplemental reports within 60 days after the date of the injury and again when disability ends, if it has not ended within 60 days. The statistical division of the office gets all reports at the end of 60 days to do the preliminary work of ascertaining the information which is printed by the board in its annual reports. Every report which has no supplemental report attached is then followed up through employer, insurer, or employee, or all three, if necessary, in order to get exact information as to the status of the case at the end of that period. If the employer can not give the information because the employee can not be located, the insurer is written to and such information as the company has is placed before the board. If this information is not satisfactory, an effort is made to get a letter to the employee to obtain the required information. These efforts are so successful that in practically every case the board is able to get reliable data upon which to base its statistical information.

In every case where incapacity for a period of more than 10 days is indicated and no agreement is on file, the statistical division writes the employee advising him of his rights under the law, and as a result the cases in which employees are negligent as to their rights under the act are adjusted by the board. If an insurer gives as a reason for failing to pay compensation that the employee has elected to bring suit against the independent wrongdoer, it being a case where such action may legally be taken when the injury is caused by the act of a third party, the employee is written to and advised that he may elect to claim compensation or to bring suit, but that he must make an election; or if the insurer states that the injury is regarded as one which did not arise out of the employment for reasons stated, the employee is advised of the requirements of the law and given an opportunity to seek a hearing. So that it appears unlikely as a result of all these precautions that any employee whose injury is reported can be denied his rights under the law.

When complete data are received by the board and these data indicate that the employee has returned to work, the settlement receipt must show that the employee has received the full amount called for by the law. If not, this is taken up by correspondence with the parties, and if not determined by such correspondence to the satisfaction of the board the case goes to an inspector for full investigation, and if it is not then adjusted properly, to conference or hearing. You understand that in Massachusetts we are very close to each other, and that we do not have the same problem you have in a good many of the Western States, where you may have to travel from 500 to 1,000 miles.

From a modest beginning the medical work of the board has developed gradually until its importance is now second to no other provision of the law, not excepting even the compensation provisions.

From a little section dealing with the furnishing of medical and hospital services and medicines during the first two weeks after the injury only, the law has been amended until it now takes in every case of serious and unusual injury (and most of the cases in Massachusetts are now "unusual" as far as medical treatment is concerned), providing for the payment of reasonable medical and hospital bills for the full period of hospital care in such cases as in the discretion of the board are deemed unusual; and the board, under its broad interpretation of this section, has usually awarded reasonable fees in every serious case requiring hospital and medical care for any appreciable period beyond the first two weeks. The law has been amended recently to provide that the board may, whenever in its opinion the fitting of an artificial eye, limb, or other mechanical appliance will promote the restoration of an injured employee to industry, provide for the furnishing of such appliance at the expense of the insurer. The impartial physician section under which, guided by its medical adviser, the board names experienced and competent men to make impartial examinations, is an important help to the work of the commission, and the amendment making such impartial reports and hospital records evidence has tended to simplify our procedure, saving expense to parties under the act and assisting the board to arrive at a fair decision in disputed cases upon all the evidence.

The inspectors of the board are called upon to report the facts to the board for determination by the board, and therefore they are and must be able to make a clear, concise statement of all the material facts ascertained by their investigation in any given case. They investigate cases involving the rights of dependents when employees are fatally injured, including a statement of the facts with regard to the manner in which the injury occurred in such a manner as to indicate to the board where, prima facie, there is original liability; and they also report the facts required by law (see Part II, sections 6, 7, and 8) as to the dependency of those who may come within the classification "dependent" as defined in Part V, section 2, of the act. Similarly, doubtful cases where the employees are not fatally injured, but where the facts are not reported, or where they are in dispute, are referred to the inspector for investigation and a report of the facts. Under our law, when an insurance company once begins to pay compensation it cannot stop paying without receiving permission from the industrial accident board or the assent of the employee. We have a large number of requests for discontinuance, stating that the insurance company's doctor has recently examined the employee and says that he is able to go to work, and every one of those cases we set down for examination. Discontinuance cases, under Part II, section 4, are frequently referred to the inspector, to determine the exact condition of the employee with reference to his ability to return to work, or to return to a specific job which has been provided for him through the efforts of the insurer or other agency, the inspector being required to report the facts, and, in this case, his judgment upon the facts, as to whether the employee is able to perform his former work or the work which has been provided for him. This usually requires that the employee accompany the inspector to the place of employment so that by actual demonstration it may be decided whether the job is within

the employee's capacity to perform. In such cases, as in all cases, final judgment is passed by the board or a member, frequently hearings being necessary to this end.

Agreements to redeem liability (lump-sum agreements) are received by the board and under its practice referred to an inspector for investigation and a report of the facts, the investigation being made to determine two points: First, is the proposed redemption of liability (terminating all of his rights under the act) for the best interests of the employee, including his family, if he has one; and, second, is the amount agreed upon a just compensation in view of the employee's injury and loss of earning capacity? Every case of serious injury in which a "young and inexperienced employee" is involved, under chapter 236, Statutes of 1915, is investigated by the board to determine whether the injury received by him will affect his earning capacity in the future and for the purpose of ascertaining the increases in wages which he would have received in the employment in which he was injured had not the injury been received. Miscellaneous matters investigated and reported are: Failure of employers to report injuries as required by law; irregularities of all kinds, including complaints of underpayments or cases of underpayments by insurers; failure of insurers to comply with various provisions of the law; matters under Part II, section 11, relating to additional compensation for specific injuries; features pertaining to medical treatment offered by insurer and refused by employee; disputes between attorneys and their clients, employees, in re fees for services; the unwarranted taking away from employees by attorneys of an excessive sum for services rendered, etc.

When cases get to the hearing stage, board members endeavor to get all the facts bearing upon the questions in dispute so that a fair decision may be made upon all the evidence.

The vocational work of the board will be described in another paper so that I shall not take up your time in a discussion of this work now.

At least a brief reference should be made to one feature of our procedure, because of the possibilities which it presents for adaptation to our law courts. The statute under which the board acts provides that in cases where the insurer and the employee are unable to agree either party may ask for a hearing, which hearing shall be held before a member of the board, who shall make such rulings of law and findings of fact as the evidence warrants. This requires a proceeding similar to that of the ordinary court.

No other proceeding is provided for by the statute, but, entirely apart from the statute, the board has adopted an intermediate step, a conference, which as its name indicates, is an informal discussion, to which the parties are summoned and where, in company with a member of the board, the points of difference are discussed and a settlement of the disputed points reached if possible. A very large percentage of the disputed cases are disposed of in this manner without a formal hearing being necessary. In cases where no final disposition is arrived at the conference brings out the points of difference, with the result that when the case goes to a hearing very little time has to be expended on matters of proof outside the real point in dispute.

In all these conferences the insurance company has a representative; the employee may have a representative if he desires, but if he does not it is not necessary. We lay the cards on the table at those conferences, and I think fully 75 per cent of those conferences are closed without a hearing of the cases, and this saves a good many hundred hearings in the course of a year.

These conferences, being informal discussions of the facts and law, do not require the attendance of witnesses. The saving in time, counsel, and witness fees to the parties, if the case is disposed of, is obvious. The narrowing of the issue brings a similar saving, although to a lesser degree, in the event of a hearing. The saving of time to the board has made it possible to dispose of an amount of work which would have been utterly impossible if the statutory procedure were followed in every case.

When it is recalled that the questions which come before the industrial accident board present, within the scope of the compensation law, the same issues which are raised in any other trial, does not the experience of the industrial accident board indicate a probability of success if some similar method were to be adopted by our law courts? Recently published statistics indicate that the advent of prohibition has resulted in a great falling off of the cases coming before our district and police court judges. With the time which is consequently made available, is it not feasible to enact legislation whereby there can be referred to these judges cases for conference along the lines followed by the industrial accident board? My own experience on the accident board leads me to the conclusion that it is not only feasible, but so far as results to be accomplished are concerned, highly desirable.

The board has accomplished its task at comparatively small expense to the Commonwealth, the total cost to the State being a sum equivalent approximately to 2½ per cent of the amount received in medical and disability benefits by the injured employees. It has administered the law without one serious complaint from representatives of any of the parties to the act, and it has done its work so efficiently and speedily that it has an enviable record among the industrial accident commissions of the country. Under its administration $5,000,000 was paid last year to injured employees and their dependents and for hospital and medical treatment, about 25 per cent being for hospital and medical treatment.

The act has been interpreted broadly and in a practical, commonsense way; the commissioners have become specialists in the law of workmen's compensation and all of them have given freely of their time and services not only to their scheduled cases and matters but to the large number of the general public who come to them daily for advice and consultation. There is an open door to all at the quarters of the board in the statehouse.

Section 18, part 3, chapter 751, of the Acts of 1911 and amendments thereto provides: "Any employer who refuses or neglects to make the report required by this section shall be punished by a fine of not more than $50 for each offense." Return to be made within 48 hours after injury occurs.

An answer should be made to every question.

REPORT OF A PERSONAL INJURY TO AN EMPLOYEE.

REPORT No. 1.

SECTION A. EMPLOYER, PLACE, AND TIME.

1. Employer's name_____
2. Average number of employees (male_____; female_____)
3. Office address: Street and No_____
4. City or town_____
5. Business (state exact nature)_____
6. Location of plant where injury occurred_____
   Street and No_____City or town_____
7. Date of injury_____ 8. Day of week_____ 9. Hour of day_____
10. If employee did not leave work on day of injury, on what day did incapacity begin?_____

SECTION B. INSURANCE.

1. Are you insured to provide payment to injured employee under the workmen's compensation act?_____
2. If so insured, give name of insurance company (not name of agent)_____
   _____
3. If a city, town, county, or district, state whether workmen's compensation act has been accepted_____
4. Has injured employee given notice in writing reserving common-law rights?_____ 5. If so, when?_____

SECTION C. INJURED PERSON.

1. Name of injured employee_____
2. Address _____
3. Sex_____ 4. Age_____ 5. Married or single_____
6. Occupation _____
7. In what department or branch of work?_____
8. Was this the regular occupation of employee?_____
9. If not, state regular occupation_____
10. Was injured employee piece or time worker?_____
11. Wages, or average earnings weekly_____

SECTION D. CAUSE.

1. Name of machine, tool, appliance, etc., in connection with which injury occurred _____
2. Hand feed or mechanical_____
3. Describe fully how injury occurred_____
4. Part of machine on which injury occurred_____
5. Is it possible to provide a guard, safety appliance, or regulation in connection with this machine that might have prevented this injury?_____
6. What guard, safety appliance, or regulation to guard against the injury was in use when it occurred?_____

SECTION E. NATURE OF INJURY.

1. Part of person injured (state whether right or left in case of arms or hands)_____
2. Nature of injury, as near as possible_____
3. Attending physician or hospital where sent, name and address_____

4. State probable period of disability (number of days employee is expected to be absent from employment, dating from day of injury)_____
5. Has employee returned to work (for you, or elsewhere)?_____
If so, give date_____
Date of report_____ Made out by_____

If employee is disabled, detach here, preserving remainder of blank for later use.

SUPPLEMENTAL REPORT.

A supplemental report should be filed: Immediately after the return to work of the employee; if employee does not return to work within 60 days, at the end of such period; in every case where an employee does not return to work within 60 days after the occurrence of the injury a second report must be made to the board at the end of the period of disability.

Date of injury_____19__
Name of injured person_____ Previously reported_____19__
Present address of employee:
City or town_____
Street and number_____
Name of employer_____ City or town_____

SECTION F. EXTENT OF INJURY.

1. What incapacity resulted to the employee by reason of this injury? State nature exactly, or as near as possible_____

SECTION G. DURATION OF DISABILITY.

1. Has injured person returned to work (for you, or elsewhere)?_____
2. Date of return_____
3. At what occupation?_____
4. Present rate of wages per week_____
5. If injured person not yet at work, state probable length of further non-employment _____
Date of report_____ Made out by_____

REPORT OF FATAL ACCIDENT TO EMPLOYEE.

IMPORTANT.—This report is to be used only when an injury results fatally. In all cases report No. 1, "Report of an accident to an employee," must also be filled out.

Section 18, part 3, chapter 751, of the Acts of 1911 and amendments thereto provides:

"Any employer who refuses or neglects to make the report required by this section shall be punished by a fine of not more than $50 for each offense."

Return to be made within 48 hours after accident occurs.

1. Name of employer and business address, city or town, street and number____
2. Name of injured person_____
3. Residence of injured person at time of death_____

SECTION H. DEATH OF EMPLOYEE.

1. Death resulted on, date_____
2. Place where injured person died_____

SECTION I. DEPENDENTS.

1. Single, married, widower, widow, or divorced_____
2. Number of children under 18 years_____
3. If no wife, husband, or children survive, what other relatives were dependent upon deceased?_____
4. Relationship of dependents_____
Date of report_____. Made out by_____

REPORT DIVISION, FORM NO. 1.—POSTAL CARD FORM TO INJURED EMPLOYEE.

(Mailed immediately after report is received.)

INDUSTRIAL ACCIDENT BOARD,
State House, Boston, Mass.

We have been advised of your recent injury.

No compensation is due unless you are unable to work for a period of more than 10 days. If disability lasts longer than 10 days, compensation begins on the eleventh day after the date of injury, the first week's compensation being due on the seventeenth day.

If you are incapacitated for work for a period of over 10 days, and the insurer does not offer to pay compensation, please advise us.

ROBERT E. GRANFIELD, *Secretary.*

REPORT DIVISION, FORM NO. 2.—LETTER TO EMPLOYER.

We are advised that the above-named employee claims to have received a personal injury while in your employ on _____, and we ask you kindly, as required by law, to file a report of this injury on the inclosed form without delay.

Your attention is directed to the fact that you are liable to a fine of $50 for failure to file this report within 48 hours after the injury occurs.

REPORT DIVISION, FORM NO. 3.

DEAR SIR: We are advised that _____ _____, one of your employees, received a personal injury which arose out of and in the course of his employment on _____.

Your attention is hereby directed to Part III, section 18, of the workmen's compensation act, which requires that every employer shall keep a record of all injuries received by his employees in the course of their employment and within 48 hours thereafter file a report in writing with the Industrial Accident Board on blanks to be procured from the board for that purpose. This form is inclosed herewith and you may have a supply of such forms upon request.

If this report is not received within 10 days after the date of this letter the case will be referred to the law department of the Commonwealth for the enforcement of the penalty which is provided by law.

REPORT DIVISION, FORM NO. 4.

GENTLEMEN: We are sending you this formal notice, by registered mail, to direct your attention to your duty to investigate and report personal injuries to your employees as required by Part III, section 18, of the workmen's compensation act.

Your attention has been previously called to this matter and we have not even been favored with the courtesy of a reply.

Should your investigation show that this employee has not received an injury as claimed, you should make a statement of the facts developed by your investigation, using the inclosed form so far as applicable.

We suggest that you kindly answer this letter promptly and file the report so that the board will not be obliged to take steps to enforce the collection of the penalty of $50 which is provided by Part III, section 18, for imposition upon any employer who "refuses or neglects to make the report required by this section."

REPORT DIVISION, FORM NO. 5.

To EMPLOYER:

Your attention is directed to the questions checked on the inclosed blank form.

You have not answered these questions, as required, on the original report of injury filed here, and we ask you kindly to comply with your obligation under the law to file a complete report of the injury to the above-named employee by answering the checked questions and returning the form without delay.

(Inclosure: Report of injury form, with unanswered questions check marked.)

REPORT DIVISION, FORM NO. 6.—LETTER TO EMPLOYEE.

(In answer to letter requesting advice as to procedure to be followed when compensation is not paid promptly.)

Acknowledging your request for information as to the procedure which you should follow, the insurer having failed to pay compensation promptly when due, we suggest that you at once fill out and file with this board the inclosed claim for compensation and send a copy of the claim to the_____ Insurance Co.

Should the insurer fail to honor this claim promptly, you may have a formal hearing upon request.

(Forms inclosed, two claim forms, one request for hearing.)

REPORT DIVISION, FORM NO. 7.—LETTER TO INSURER.

(Following advice from employee that compensation was not paid promptly.)

The above-named employee informs the board that notwithstanding the fact that his first week's compensation was due on _____, payment was not made as required by law.

Our records show also that you failed to keep your understanding with the board and advise us promptly in each case where incapacity extends beyond 10 days when for any reason you fail to pay compensation when due.

We should like to have you advise us promptly upon receipt of this letter whether compensation will be paid and why you failed to notify us of the nonpayment of compensation in this case.

CLAIM DIVISION, FORM NO. 1.

Name of insurer_____
Address_____

RE: EMPLOYEE—EMPLOYER.

GENTLEMEN: This employee has filed a claim for compensation, alleging the following as facts:

That the time of his injury was_____
That the place of his injury was_____
That the cause of his injury was_____
That the nature of his injury was_____

Kindly advise whether this claim will be honored.

CLAIM DIVISION, FORM NO. 2.

Name of employer_____
Address_____

RE: EMPLOYEE—INSURER.

GENTLEMEN: This employee has filed a claim for compensation, alleging that he received an injury under the following circumstances:

That the time of his injury was_____
That the place of his injury was_____
That the cause of his injury was_____
That the nature of his injury was_____

Please investigate and file a report on the inclosed form.

CLAIM DIVISION, FORM NO. 3.

Name of employee_____
Address_____

DEAR SIR: Acknowledging receipt of your claim for compensation, we find that your employer has not filed a report of this injury, and suggest that, if convenient, you call upon your foreman or employer and advise him personally of the facts in relation to the injury so that the report may be filed without delay. In any event notice of the injury in writing, stating the time, place, and cause of the injury should be given as soon as practicable after the occurrence, and the form upon which this notice should be given is attached hereto. Deliver it in person or send it by registered mail to your employer. Your failure to comply with the requirements of the law as to notice in writing may bar your right to proceed with your claim, unless you can show that your employer, or the insurance company, or an agent of either, had knowledge of the injury. If you do not hear from the insurance company within 10 days, you should write us and ask for a hearing.

CLAIM DIVISION, FORM NO. 4.—TO EMPLOYER.

(Average weekly wages.)

We request you kindly to file without delay a statement of the wages earned by the above-named employee during the 12 months immediately preceding the date of his injury, including therein a statement of the number of hours lost by him during that time.

This statement should show week by week for the full period the number of hours worked by him during each week and his wages for that period.

If the employee did not work for the full period of 12 months prior to the injury, the statement should cover the full period during which he was employed and should be accompanied by a statement of the wages earned by another employee, performing similar work, who was employed for a full year prior to the date of the injury.

CLAIM DIVISION, FORM NO. 5.—TO INSURER.

(Average weekly wages.)

Referring to the agreement in regard to compensation, which has been filed by you in the above case, we note that you are basing compensation upon an average weekly wage of $_____.

Our records indicate that the employee's average weekly wages are $_____.

We should be pleased to have you file with the board a copy of the wage statement upon which you base your average weekly wage computation.

CLAIM DIVISION, FORM NO. 6.—TO INSURER.

(In re failure to make provision for additional compensation.)

We have your agreement in the above case and note that no provision is made for the payment of additional compensation on account of the injury _____ _____. Our records indicate that this employee has sustained _____ and is entitled under Part II, section 11, to additional compensation for a period of _____ weeks.

We therefore ask you to file a corrected agreement providing for the payment of the additional compensation which appears to be due.

CLAIM DIVISION, FORM NO. 7.—TO EMPLOYEE.

(When additional compensation appears to be due.)

We are sending you herewith a copy of our letter of _____ (Form No. 6) and ask you kindly to advise us within the next 10 days whether or not the additional compensation referred to therein has been paid you by the insurer.

If additional compensation is not paid, as indicated, a hearing will be arranged for upon request.

CLAIM DIVISION, FORM NO. 8.—TO INSURER (copy to employee).

(Underpayment of compensation indicated.)

Referring to the settlement receipt filed by you in the above case, we note that the injury occurred on (blank date) and that all incapacity for work terminated on (blank date), a compensation period of (blank) weeks, which at $_____ per week amounts to $_____.

Your settlement receipt shows a total payment of $_____, indicating an underpayment of $_____, which we should like to have explained.

If the full amount due under the act has not been paid, please file a corrected settlement receipt with the board.

CLAIM DIVISION, FORM NO. 9.—TO INSURER (copy to employee).

(Underpayment of compensation and nonpayment of partial compensation indicated.)

Referring to the settlement receipt filed by you in the above case, we note that the injury occurred on (blank date) and that all incapacity for work terminated on (blank date), a compensation period of (blank) weeks, which at $_____ per week amounts to $_____.

The employee was also partially incapacitated for work and unable to earn full wages for the period between _____ and _____, during which partial compensation was due at the rate of two-thirds of the difference between $_____ and $_____, amounting to $_____.

The total amount due the employee for both total and partial incapacity for work therefore was $_____. Your settlement receipt shows a payment of $_____. This indicates a discrepancy of $_____, which should be explained, or the amount due paid to the employee and corrected settlement receipts filed here.

CLAIM DIVISION, FORM NO. 10.—TO EMPLOYEE'S PHYSICIAN.

(When name of physician is given on report; in re nature of injury to ascertain whether additional compensation is due in certain cases where report is not clear.)

We note from the report of injured filed in the above case that you were the employee's attending physician; therefore, in order to ascertain whether or not he is entitled to additional compensation under the law on account of the specific injury sustained, we ask you kindly to make out and file with this board a statement indicating the exact nature of his injury, and, if his eye, hand, or foot was injured, attach to your statement a diagram indicating the portion of his body which was injured, and whether any portion of the hand or foot was amputated or rendered permanently incapable of use, and in the case of an eye, whether his vision in the injured eye, with *glasses*, was reduced to one-tenth of normal.

Your kindness in furnishing this information will be appreciated.

CLAIM DIVISION, FORM NO. 11.—TO EMPLOYEE.

(When further information is required to ascertain whether or not additional compensation is due on account of specific injury; used only when doctor's name not known or information can not be obtained from physician.)

The report of injury on file in this office in your case does not give us sufficient information upon which to determine whether or not you are entitled to additional compensation because of the specific injury received by you.

In order that we may be able to pass upon this matter promptly, we ask you kindly to go to your attending physician and have him make out a complete report accompanied by a diagram, showing the exact nature of your injury, and stating whether any portion of the hand or foot was amputated or rendered permanently incapable of use, and in the case of an injury to the eye, whether your vision in the injured eye, with *glasses*, was reduced to one-tenth of normal by reason of the injury.

If you are unable to obtain this information, please advise us promptly, and we shall be pleased to arrange for an impartial examination.

CLAIM DIVISION, FORM NO. 12.—TO EMPLOYEE.

(Where insurer states employee has elected to proceed at law against third party.)

We are advised by the insurer that you have elected to proceed at law against the third party who caused your recent injury rather than to claim your rights under the workmen's compensation act.

Under Part III, section 15, of the act, "where the injury for which compensation is payable * * * was caused under circumstances creating a legal liability" in some person other than the insurer of your employer, you may proceed at law against that person to recover damages, *or* claim compensation under this act, but you can not proceed at law and *also* claim compensation.

If the insurer is correct in its statement that you have elected to proceed at law and do not desire to claim your rights at law, you need not reply to this letter, and the case will be filed without further action. If, however, you wish to claim compensation, please advise us promptly upon receipt of this letter, and the matter will be taken up with the insurer.

CLAIM DIVISION, FORM NO. 13.—TO EMPLOYEES.

(Letter to employee when insurer informs board that liability is denied.)

The insurer has informed the board that liability is denied for the injury recently sustained by you, the insurer claiming that your injury did not arise out of and in the course of your employment.

The insurance company informs the board that your injury occurred under the following circumstances:

(Here is inserted quotation from insurer's letter.)

If you claim that your injury arose out of and in the course of your employment, or that the facts are not correctly stated by the insurer and you therefore desire a hearing, please fill out and file with the board the inclosed claim for compensation and ask for a hearing.

If convenient, you may call here and discuss your case with the board, or you may write for further information and advice.

STATISTICAL DIVISION, EMPLOYEE'S LETTER NO. 1.

Re: _____

According to our records, disability in your case apparently extended beyond the 10-day waiting period. For injuries "arising out of and in the course of employment" compensation dates from the eleventh day after injury.

If you intend to claim compensation the inclosed blanks should be filed promptly, one with this office and the other with _____.

Failure to do so within six months after date of injury will be reason enough to deprive you of your compensation, if due, unless you can show a mistake or other reasonable cause.

STATISTICAL DIVISION, EMPLOYEE'S LETTER NO. 2.

In the case named above, in which the injury occurred on _____, we have been advised by the insurance company that you returned to work on _____, although your employer has stated that you returned to work on _____.

If you were incapacitated beyond the 10-day waiting period you may, if you wish, file claims for compensation, one with this office and the other with the _____.

At any event, kindly advise us the correct date upon which you returned to work.

STATISTICAL DIVISION, EMPLOYEE'S LETTER NO. 3.

Re: _____.

DEAR SIR: With reference to the injury sustained by you on _____ we have been advised by the insurance company that they do not consider that your injury "arose out of and in course of employment." They are therefore disclaiming liability.

If you consider the facts to be otherwise, you may, if you wish, file claims for compensation, one with this office and the other with the _____.

If you do this, a hearing should be requested on the form "Notice of failure of parties to reach an agreement," to be filed with this office.

We call your attention to the fact that the law provides that claims for compensation must be filed within six months from the date of the injury.

STATISTICAL DIVISION, EMPLOYEE'S LETTER NO. 4.

Re: _____.

We have been advised by the insurance company of your intention to sue a third party. Under the provisions of the act, in the case of third-party injuries, an employee may elect to proceed at common law against the third party or he can accept compensation, if the injury "arose out of and in the course of his employment" under the provisions of the compensation act.

In such cases an employee can not elect both remedies; if the claim is to be made under the act, the inclosed claims should be filed, one with this board and the other with the _____.

STATISTICAL DIVISION, LETTER TO DEPENDENTS OF FATALLY INJURED EMPLOYEES WHOSE EMPLOYERS WERE NOT INSURED UNDER THE ACT.

To the dependents of_____:

With reference to the fatal injury sustained by the employee named above, whose employer was not insured under the provisions of the workmen's compensation act, will you kindly furnish us with the information requested below?

The facts submitted by you will be treated confidentially, since this information is to be used only for statistical purposes in an endeavor to have information to indicate the hardship oftentimes involved in cases in which insurance was not carried by the employers.

This letter has no reference to any benefits under the workmen's compensation act.

1. Was any settlement made in this case?
2. If a settlement was made, please state the amount.
3. If a settlement or suit is pending, but not adjusted, please indicate the amount of the settlement asked or the amount named in the suit.
4. What is the present financial condition of the members of the employee's family?

As stated above, in asking for this information we are not in any way connected with the payment of damages, but will appreciate receiving this information for general statistical purposes.

STATISTICAL DIVISION, EMPLOYER'S FORM NO. 1.

MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD, ROOM 272, STATEHOUSE, BOSTON.

BOSTON, MASS., _____, 19__.

Kindly supply this board with the information required on the accompanying "Reply postal card" at your earliest convenience—to-day, if possible.

ROBERT E. GRANDFIELD,
Secretary.

_____
(Insert city or town and date here.)

TO INDUSTRIAL ACCIDENT BOARD,
Boston, Mass.:

Date of injury, _____.
In re: Injury to _____

Give date employee returned to work, _____. Rate of wages before injury, $_____. Afterwards, $_____. If employee has not returned, please state (yes or no) whether he is able to return to work _____. If not, state when you expect him to be able to return _____.

If now employed elsewhere, state with whom such employment began, _____. When did such employment begin_____.

Remarks_____

(Signed) _____,
Employer.

STATISTICAL DIVISION, EMPLOYER'S FORM NO. 2.

Re: _____

DEAR SIR: On _____ we sent you a reply postal card referring to the case named above, in which the injury occurred on _____. and have not received from you the information requested. *We desire to know whether disability has ceased; and if so, the date the employee returned to work, or the date incapacity terminated.* If after investigation it is impossible for you to furnish the information, we will appreciate receiving from you the approximate period of incapacity.

We call to your attention the fact that the law requires not only that injuries be reported in the first instance, but also that when the employee returns to work, either for you or elsewhere, that a supplemental report to that effect shall be filed with this office. We will appreciate receiving from you the information as promptly as possible in this case and in all cases in accordance with the law. Your cooperation at all times will assist greatly in decreasing the time and money cost of operating our follow-up system, thereby helping to reduce in part the expense of performing the State's necessary business.

STATISTICAL DIVISION, EMPLOYER'S FORM NO. 3.

On _____ we sent you a post card asking for the date of return to work of the above employee, who was injured on _____, but we have received no reply.

On _____ we sent you a letter calling your attention to your duties under the workmen's compensation act, but as yet have received no reply.

We desire to call your attention to section 18, part 3, of the act, which states: "Upon the termination of the disability of the injured employee the employer shall make a supplemental report. If the disability extends beyond a period of 60 days, the employer shall report to the board at the end of such period that the injured employee is still disabled."

We trust that you shall comply with the law and send us the necessary information.

STATISTICAL DIVISION, EMPLOYER'S FORM NO. 4.

Re: _____

DEAR SIR: In the case named above, the employee was injured on _____.

The information that you have furnished us is not sufficient for the determination at this office of the period of time during which the employee was disabled.

We desire to know the date the employee returned to work after the injury, either for you or elsewhere. In other words, we wish to know the date upon which disability ceased. If, after investigation, you are unable to state this information exactly, we will appreciate receiving from you the approximate date upon which disability terminated.

Will you kindly endeavor in all cases, upon the termination of disability, to furnish information on supplemental reports that will enable this office to determine the period of incapacity? This is a requirement of the law, and your cooperation in this respect will assist greatly in reducing the time and money cost of operating a follow-up system that otherwise would not be necessary.

(NOTE.—Special letters sent whenever necessary outside of these four forms.)

STATISTICAL DIVISION, INSURER'S POST CARD NO. 1.

MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

BOSTON, MASS.,_____

Kindly supply this board with the information required on the accompanying "Reply postal card" at your earliest convenience—to-day, if possible.

ROBERT E. GRANDFIELD,
Secretary.

_____
(Insert city or town and date here.)

To INDUSTRIAL ACCIDENT BOARD,
Boston, Mass.

Date of injury _____

In re: Injury to _____ employee.
_____ employer.
Has any compensation been paid in this case?_____
If so, how much per week?_____
When did employee return to work?_____
Total amount of compensation paid?_____
Total payment for medical services?_____
Estimated amount due, if any, under the act?_____

(Signed) _____
Insurer.

STATISTICAL DIVISION, INSURER'S POST CARD NO. 2.

MASSACHUSETTS INDUSTRIAL ACCIDENT BOARD.

BOSTON, MASS.,_____, *1917.*

There is an agreement in regard to compensation on file in this office, but no settlement receipt. Will you kindly supply the board with the information required on the accompanying "Reply postal card" at your earliest convenience—to-day, if possible?

ROBERT E. GRANDFIELD,
Secretary.

_____
(Insert city or town and date here.)

To INDUSTRIAL ACCIDENT BOARD,
Boston, Mass.

In re: Injury to_____ employee.
_____ employer.
Date of employee's return to work or end of incapacity?_____
Total amount of compensation paid?_____
If incapacity for work of employee has not ceased, when, in your opinion, will this incapacity cease?_____
Estimated amount due employee on account of future incapacity for work?_____

(Signed) _____
Insurer.

STATISTICAL DIVISION, INSURER'S LETTER NO. 1.

Re: _____

GENTLEMEN: In the case named above, according to our records, the employee was disabled more than 10 days, but there is no agreement or settlement receipt on file. If you have paid compensation, will you kindly comply with the requirements of the law as indicated above.

If you have not paid compensation, will you kindly state on what grounds payments have been refused and the present status of the case on your records?

Agreement, settlement receipt, or letter with reference to this case should be directed to the attention of the statistical department.

STATISTICAL DIVISION, INSURER'S LETTER NO. 2.

(Supplement to Post Card No. 1.)

Re: _____

GENTLEMEN: Kindly refer to our post card sent you on _____ and advise the board the date upon which the above employee's incapacity ceased.

The employer is unable to give us this information.

STATISTICAL DIVISION, INSURER'S LETTER NO. 3.

(Supplement to Post Card No. 2.)

Re: _____ (previously requested).

GENTLEMEN: In the case named above, there is an agreement on file indicating the payment of compensation.

Will you kindly advise us whether the employee is still disabled; and, if so, the probable future duration?

If the employee is not now disabled, please file a settlement receipt to show total payments made and the date incapacity terminated.

We prefer to have reply made on this form if settlement receipt is not to be filed.

The CHAIRMAN. The chairman of the Illinois Industrial Commission, Mr. Andrus.

HOW TO SECURE FULL COMPENSATION TO INJURED WORKERS.

BY CHARLES S. ANDRUS, CHAIRMAN, ILLINOIS INDUSTRIAL COMMISSION.

No subject is of more far-reaching importance to those engaged in the administration of workmen's compensation laws than how to secure full compensation to injured workers. No matter how liberal the scale of benefits in the law is, it is of no practical utility unless it is followed by actual payment to the injured employee. How this may be accomplished is in my opinion the biggest problem in compensation administration to-day.

The common-law method of the settlement of personal injuries developed a system that can not be eradicated in a day. The claim agent's business was to settle claims for as little as possible, the same as it was the duty of the purchasing agent to purchase as cheaply as possible. Whether that system was a necessary evil is for the purposes of this paper an entirely academic question.

The most important means of securing full compensation is to have a board or commission charged with the enforcement of the act. This body must realize that it has not discharged its duties by merely adjusting disputed claims, but that it is its duty to see that compensation is paid promptly and in the full amount.

Courts very properly do not initiate litigation. Courts also very properly encourage settlement of cases, and, if the parties do agree in a settlement, do not concern themselves as to whether the settlement is fair and adequate. It is regarded as a private controversy, and if the parties themselves are satisfied, the public is not concerned. In fact, the interest of the public is generally that the case should be settled, as it is thus saved the public expense incident to a trial.

Neither of these principles is applicable to the administration of compensation laws. It is the duty of the administrators of these laws to take such action and to adopt such means as will secure full payment of compensation and to refuse to allow any settlement that is not adequate.

The most effective means of securing compensation is the knowledge of the employee as to his rights under the compensation law. That the employee is acquiring a better knowledge of these rights is proved by the increased number of claims filed. In Illinois during the last year we had 7,499 claims filed with 38,289 reported compensable accidents, as compared with 5,696 claims and 38,247 reported compensable accidents during the previous year. It will be noted that while the number of accidents is about the same, the number of claims has appreciably increased.

This increase might be due to the fact that employers and insurance carriers are not paying their claims as well, but I am satisfied that the opposite is true. I attribute it to the fact that employees are being better apprised of their rights and are filing claims when these rights are not accorded them. Some claims are filed

which seem without merit, and the number of these has probably increased also, but the principal reason, I think, is as above stated.

Admitting that it is the duty of compensation boards to see that compensation is paid promptly and in full, as I am sure you all do, what means and methods shall be adopted for such purpose?

Illinois has a provision in its law, as have some other States, that the industrial commission may exclude from the business of compensation insurance any insurance company that shall be found financially unsound or that shall practice a policy of delay or unfairness in the payment of claims. I think that there should be such a provision in every law, and that the commission should not hesitate to use this power when there is clear proof of intentional cheating.

I have no doubt that it is the policy of most of the insurance companies to pay their claims in full, and that their agents are so instructed. However, the fact remains that some companies have not been paying their just claims, and our investigations showed that in some cases agents have gleefully written to their general office and explained how they had beaten a man out of his compensation, and have been heartily commended for such action.

It is true that there are good insurance companies and bad insurance companies, just as it is true that there are good lawyers and bad lawyers. When a lawyer is found to be dishonest and guilty of unprofessional conduct the remedy has been not to abolish the legal profession, but to disbar the lawyer, and the same procedure ought to be adopted with dishonest insurance companies, and commissions should be given such power.

I am satisfied that the great majority of employers and insurance companies are honestly endeavoring to pay their just claims promptly and in full. That all claims are paid promptly and in full is, of course, not true.

During the last year the Illinois commission compiled figures showing the average time elapsing from the date of the accident to the first payment of compensation. The figures were compiled separately for each insurance company and for employers carrying their own risks, and separate figures were compiled of stock companies, mutual companies, and interinsurers.

The results obtained were as follows, the figures given being the number of days from the accident to the first payment of compensation:

Self-insurers, 54.35; stock companies, 43.62; mutual companies, 50.62; interinsurers, 52.26.

In Illinois there is a one-week waiting period where the disability does not exceed four weeks, so that no compensation is due till after 14 days. This 14 days is included in these figures. There are also included both contested and noncontested cases.

Some of the companies objected to a computation on this basis, contending that the 14 days should be excluded, that contested and noncontested cases should be separated, and that the receipt of the accident report by the insurance company from the employer, rather than the date of the accident, should be taken as the date from which computation should be made. If it is understood that no compensation is due till after 14 days the figures ought not to deceive anybody, but to avoid argument on this score I shall deduct 14 from each figure and the results stand—

Self-insurers, 40.35; stock companies, 29.62; mutual companies, 36.62; interinsurers, 38.26.

Whether the figures should include contested cases is perhaps a debatable question. It is only the contested cases where compensation is allowed that can be included, and the employee has not only had to wait for his compensation, but has been compelled to incur the expenses of a hearing. It is true, on the other hand, that the delay in disposing of a case where it is once started is not the fault of the company, and it ought not to be charged with this delay if the case is properly one that should have been contested.

As to reckoning from the date when the accident report is received by the insurance companies, I do not think this should be done. The insurance company stands in the place of the employer and should be charged with the employer's neglect of duty.

It will be noticed that stock companies come first in promptness of payment, mutual companies second, interinsurers third, and self-insurers last. It would seem that self-insurers should be the promptest in making payments, for many apparent reasons, but such is not the case. The insurance companies varied from 19 days to 87.23 days. I believe that the compilation by the commissions of figures showing the promptness of the different companies in making payments and the number of cases contested in proportion to total cases is an excellent plan and will result in companies paying more attention to the points on which such information is collected.

We have another provision in our act—as have several other States—that where there has been unreasonable delay in the payment of compensation, or a claim has been contested for frivolous reasons or for delay, a penalty of 50 per cent of the compensation payable at the time of the award may be added. I think this provision is a wise one and a salutary use of the penalty an effective means of securing payment of claims in the future.

Some States by law or rule enter an award in every case, whether or not contested. In States that have a small number of claims, so that they can be promptly and intelligently handled, this system may work satisfactorily. In States that have a large number of claims it would seem that the number of employees necessary adequately to act on claims in this manner would render it impossible of satisfactory performance.

I certainly would not approve of an award being entered by the commission without a full knowledge of all the facts in the case. It is much better to allow a direct settlement, leaving the matter open to possible future action by the commission, than to place the commission's seal of approval on a settlement without an accurate knowledge of all the facts.

We allow direct settlements. If an employer and employee agree on compensation and the employee receives it, that is all that is necessary, if it is the full amount. We know what the amount is from the reports that are sent in, and we have never been able to see that the vast clerical work that is needed to approve the agreement is necessary.

It is true that the representative of the employer can employ the wrong wage scale if that matter is not looked into very carefully, but I do not think you know much more about it after you have

your agreement, provided your system of computing wages is what it is in Illinois, for that is so complicated that no man could figure it out; no man could know from his own knowledge what compensation he should receive. The law says that if the man has been in the same employment for the preceding year that should be his wage. I never found a man yet who knew what he received in the preceding year. If he has not been working a year, his wage would be what another man in the same employment would receive, which manifestly the man doesn't know. With such a system as that a man's signature would be no help to us. We know in a general way what the wages ought to be. We have a maximum, and most of the men draw the maximum. When it is much below that we set about to investigate whether the full amount of compensation has been paid. I think that in Illinois, because of our complicated and unsatisfactory system of computing compensation, many men are underpaid through misapprehension of what the law is.

An examination by the physicians of the commission of cases where it is suspected that there may have been inadequate payments is an excellent check, especially in permanent partial cases. If there has been underpayment that fact can be easily ascertained in this manner.

An adequate system of accident reporting is absolutely necessary to any check in payments of compensation. What this system should be is another subject and not within the purview of this paper. In Illinois we require, besides the accident report, that a duplicate receipt of each payment of compensation be sent to us. We are thus kept apprised of how much compensation is being paid and whether it is being continued. We like this plan and would not think of discontinuing it.

I have stated before in this paper that I considered the best means of securing adequate compensation was a knowledge by the employee as to his rights. Any method that apprises the employee of his rights is to be commended. Several States notify each injured employee of his rights under the law by postal cards or booklets. The booklet, explaining in some detail his rights, is an excellent idea.

Reports direct from the injured employee are of assistance, as well as the reports of the treating physician. The usefulness of such reports depends upon how general they can be made. Many employees can not read or write English, and physicians are notoriously negligent in making reports.

It is needless to say that any kind of report is valueless unless it can be adequately handled after its receipt. There is no virtue in having thousands of reports sent in unless some use is made of them and there is an adequate force of employees to give them the proper attention.

In spite of all checks that commissions may use, compensation will not be paid promptly and in full in all cases until all employers and insurance companies adopt this as their unvarying policy.

It will not be accomplished by general instructions to agents to pay every just claim promptly unless, before congratulating managers of agencies on their successful showing, an investigation be made to ascertain whether such showing is at the expense of injured employees.

Mr. FRENCH. A very important question that has not been discussed at this conference at all pertains to the status of maritime and interstate workers. We have on the California Industrial Accident Commission as one of our experts another member of the Pillsbury family, Commissioner A. J. Pillsbury's first and only son. He has made a very thorough study of this subject. There is a paper outside under the heading of "Compensation Acts and Maritime Workers." We sent Mr. Warren Pillsbury the early part of this year back to Washington to argue before the United States Supreme Court for maritime workers, and I am sure if the justices of the Supreme Court had called Mr. Pillsbury into their chamber when they were deliberating on this subject we would have had a decision of 1920 rather than one pertaining to 1789, and therefore I would like to suggest that Warren H. Pillsbury, of the California commission, be granted the floor to speak to us on this subject.

The CHAIRMAN. If I hear no objection, I shall take great pleasure in presenting Mr. Pillsbury. Hearing none, I present Mr. Pillsbury.

COMPENSATION ACTS AND MARITIME WORKERS.

BY WARREN H. PILLSBURY, COMPENSATION EXPERT, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

The development of compensation legislation is still quite incomplete. The number of employees in excluded occupations who should be under compensation protection is unnecessarily large. In nearly all States, agricultural, casual, and domestic employees are excluded. In some States employees in employments where less than 4 or 5 or 16 workmen are engaged, are still excluded. Some States limit their coverage to employees in specified hazardous occupations, and by reason of conflicts of jurisdiction between the States and the Federal Government, most railroad employees and practically all maritime workers are taken out from the protection of State compensation laws, although receiving no compensation protection under Federal law. It is the purpose of this paper to discuss briefly the lot of the maritime worker.

Maritime employment is one of the most hazardous of industrial occupations. A sailor has the perils of the sea to face in addition to the ordinary dangers incident to working about machinery or handling goods. The stevedore is in constant danger from swinging booms or swinging loads of commodities being hoisted into or out of ships, from falling articles of cargo, and from infection from scratches or lacerations received in the handling of dirty articles and in the stowage of freight in dirty holds. These conditions have not as yet been improved by any systematic safety work, either by the States or the Federal Government, although the latter has done something under the La Follette act to prevent loss by shipwreck. When the same system of safety inspection is applied to working quarters aboard ship as is now being applied by the more advanced States for land industry, maritime work will be more attractive to native-born Americans.

On the compensation side of maritime work the situation is equally deplorable. State compensation laws are now finally precluded from compulsory application to maritime work by a series of decisions by the United States Supreme Court holding that the law maritime is paramount even though Congress itself may have legislated to the contrary. The law maritime affords little or no protection to injured seamen or their dependents. If the seaman be injured or killed by negligence of the vessel or its owners, a complicated action for damages is allowed in the admiralty courts which is in no respect more beneficial to the seaman than suits for damages in the State courts for other employments, long since superseded by compensation laws. If the injury be not due to negligence, the seaman is limited to medical care and maintenance for a short period under the rule of *The Osceola* which gives far less than compensation. For permanent injuries no system of rehabilitation is provided. For death cases, it is very seldom that the widows and children receive an allowance of any sort.

The States can not give relief, though the burden of the poverty caused by injured maritime workers falls upon the States instead of the Federal Government. Congress can not even authorize the States to protect themselves against this burden, or to protect their citizens against industrial losses. The United States has not acted to give such protection in its own right.

While this may sound doleful, there is another phase of the matter which even more strongly savors of injustice. Congress has from time to time enacted legislation for the upbuilding of a merchant marine by the encouragement of the investment of money in shipping. Such legislation, at least until the recent war, did not succeed in its purpose, i. e., it did not develop an American merchant marine. The indirect effect of such legislation was, moreover, to penalize the maritime worker, and the net result was to give to the capitalist investing in American shipping a preference at the expense of his employees instead of at the expense of the public at large. For instance, the Harter act and the limited-liability act have the effect of freeing a shipowner from liability for practically all claims for loss of life or personal injuries to members of the crew, as well as claims for loss of cargo where the ship is a total loss. Even where a seaman or his dependents have a good right of action the employer can limit his liability, if the vessel be lost, so as to defeat this right. This is a privilege not accorded to any land industry and is directly opposed to the practice of compensation legislation in which claimants for compensation are given preference over general creditors. In the proposed Federal compensation act for maritime workers some provision should be made whereby the right of limitation of liability by the employer should not be exercised so as to defeat compensation payments.

The effect of the limited-liability act may be illustrated further by pointing out that the shipowner and cargo owner can insure their losses so that if a vessel be lost at sea the insurance company will make good the loss to the owner, although he be relieved from direct liability by the operation of this act. The seaman can not, however, insure his earning capacity, as his wages are too low, and accident insurance premiums are too high for his occupation to make any private system of accident insurance practicable. If the vessel be lost at sea with all on board, the shipowner can keep the payments made to him by his insurance company with which to purchase a new vessel. He does not have to devote the proceeds of his insurance policy to the relief of the dependents of his employees. The dependents alone get nothing and are cast a burden upon the public and private charities of the State in which they reside.

The injustice of the situation is further enhanced by reference to the coastwise shipping act, by which foreign vessels are prohibited from engaging in coastwise maritime commerce of the United States. The ostensible excuse for the limited-liability act is that it makes it possible for American shipping to engage in competition with foreign shipping. No such protection is needed for our coastwise shipping, because there is no competition with foreign vessels in this traffic, which claims a large proportion of our maritime commerce. Nevertheless limited liability may be invoked for losses in coastwise shipping. The result is that if a coastwise vessel be lost

the shipowner may limit his liability and invest his insurance money in a new vessel, suffering no substantial loss. The cargo owner collects his insurance upon his lost cargo. The dependents of many of the passengers can realize upon their life insurance policies, but the dependents of the lost crew get nothing. The only uncompensated loss is that sustained by the widows and orphans of the maritime workers. The protection of the limited-liability act should not be given to shipowners in coastwise traffic to the prejudice of claims for damages or compensation for the loss of members of the crew.

The insurance situation is unsatisfactory as well as the compensation and safety situation. In California, prior to the decision of the Knickerbocker Ice Co. case, last May, in which the United States Supreme Court finally excluded State workmen's compensation acts from protection to maritime workers, a number of the maritime companies operated temporarily under our compensation act. In litigation arising under it, the insurance situation came prominently to the fore. In California we noted early that most of the insurance covering liability of the shipowner for injuries to his seamen, either common-law or compensation liability, if ultimately sustained, was placed in certain English maritime insurance companies. A general form of policy was used by a number of these English concerns, commonly known as the "P and I," or protection and indemnity insurance. More recently an American club was formed to give the same insurance upon a mutual basis, but apparently, until recently, the British concerns have dominated the field. Their adjustment attitude, at least in California, was unsatisfactory in the extreme. I have not heard of as much difficulty along the Atlantic seaboard as we have had here, possibly due to a better adjustment attitude in the East or to a less broad coverage of maritime workers in Atlantic coast compensation States. In California the principal difficulties encountered were that the British concerns had no one within the State, or within the United States, upon whom service of process of the commission could be made, so that it was impossible to make them parties to a compensation proceeding. The employer defended each case before the commission, but was in fact represented by the attorneys of the insurance concern, who frequently refused to permit the employer to take a liberal attitude under threat of forfeiture of the insurance. The insurance concerns resisted all large claims very technically, carrying test case after test case to the courts upon constitutional or technical grounds, and delayed most other cases until the test cases should be decided. In small cases settlements were sometimes prompt, but usually the claimants were underpaid according to compensation standards. Jurisdictional conflict between the State compensation law and the admiralty law was frequently made use of to throw the claimant from one court to the other and back again, in the endeavor to defeat liability on each theory in turn. So far as known, these English concerns are under no supervision in their own country as to solvency and management, such as that given by insurance commissioners in the different States in the United States.

Further, the insurance policies issued by these concerns, while in fact covering the compensation liability of the employer, invariably

omitted the statutory provisions required by the State compensation acts and declined to accept any of the responsibility which the State law requires of compensation insurance carriers. In short, the maritime insurance covering the compensation hazard, among others, was in the hands almost entirely of outsiders, who did not make themselves subject to the laws or courts of the jurisdiction under which they operated, and adopted adjustment policies at variance with the requirements of the jurisdictions in which they carried on their business.

I can not state much as to the adjustment attitude of the American P and I Club, as I did not come into contact with it to any great extent prior to the decision in the Knickerbocker Ice Co. case.

A very satisfactory form of maritime policy, from the compensation point of view, was discovered by me in the policy of the Associated Cos., in which some 10 companies engaging in the compensation business in the United States issue a policy covering the liability of the employer and dividing the risk between them. On account of the catastrophe hazard, no one compensation insurance carrier could afford to insure the crews of vessels, but the association of these 10 companies upon each risk eliminates this difficulty. Such companies do business in the various States, are thoroughly responsible, subject themselves to the jurisdiction of the different boards and commissions of the States in which they operate, and comply with the laws of those States. If the Knickerbocker Ice Co. decision had been the other way, the writer would have endeavored to start a movement for insistence on such form of policy to the exclusion of the P and I policies.

HISTORY OF ATTEMPTS TO GIVE BETTER PROTECTION TO MARITIME WORKERS.

The Federal Government being dilatory, the first attempt to give better protection to employees against maritime injuries came from the States. Admiralty law, like the common law, never provided a right of action for wrongful death, so the States, somewhat early in their history, provided negligence statutes giving such right of action. By act of Congress of 1789, the provision being known as the "saving clause" of the judiciary act, claimants in admiralty had the alternative of suing upon contracts or injuries either in admiralty or in the State courts according to the common law, which common law included State statutes passed either before or after the act of Congress. The admiralty courts thereafter adopted such State statutes, so that in the event of a fatal injury to a sailor due to the negligence of the shipowner the dependents could sue for damages either in the State court under the State law or in the admiralty court according to the usual course in admiralty, but based upon the same State law. This situation went on for many years until workmen's compensation acts developed in the United States. After the passage of the first compulsory compensation acts, the State authorities applied such compensation acts to maritime injuries upon the same principle, i. e., that an injured employee or his dependents had the option under this "saving clause" of suing in the admiralty court or of suing in the State court upon the State law. When this matter came to a test in the United States Supreme Court it was held, however, in the cele-

brated case of Southern Pacific Co. *v.* Jensen (244 U. S. 205), reversing the previously accepted doctrine, that the State compensation act could not be applied. This was a five to four decision, the majority opinion being written by Mr. Justice McReynolds and based upon reasoning unsatisfactory to all admiralty lawyers as well as compensation authorities. The stand apparently taken by the court was that workmen's compensation acts, being new legislation and at variance with common-law principles of liability, were not included within the act of Congress of 1789 above referred to, and that therefore the jurisdiction of the admiralty courts was exclusive.

To remedy this situation, Congress, on October 5, 1917, unanimously passed an amendment to the Federal judicial code expanding the "saving clause" above referred to, to extend the concurrent jurisdiction of the State authorities to include relief for maritime injuries under State compensation acts. This act of Congress was in turn declared unconstitutional, also by a five to four decision, in Knickerbocker Ice Co. *v.* Stewart, decided in May of this year. Mr. Justice McReynolds again wrote the majority opinion and the same four judges concurred with him as before. The decision holds virtually that Congress can not permit State statutes, which are based upon principles unknown to the common law, to be applied to maritime matters, upon the assumption that the United States Constitution has made the law maritime of national scope and placed it beyond the authority of the States. The decision is much to be deplored. The Federal Constitution nowhere, in express terms, contains such requirement, and the previous history of admiralty law largely involves recognition of State statutes where not contrary to acts of Congress. The parallel course of development in State and Federal jurisdiction in matters affecting interstate commerce also leads to the same conclusion, as it has been held repeatedly that State-created rights of action for damages for injuries to railroad employees are valid, even though dealing with injuries in interstate commerce, up to such time as Congress took unto itself the regulation of this field. The result is that by a misunderstanding or lack of sympathy with compensation principles, the court has excluded the States from the protection of maritime injuries by workmen's compensation laws, while it still permits State damage suit laws to be applied to the same injuries.

Assuming the ideal to which the majority of the Federal court are striving, i. e., a national system of maritime law untrammeled by State interference, the decision was nevertheless unnecessary. Complete Federal control of maritime law is sufficiently secured by the ability of Congress to assume full authority at any time in its discretion. It was not necessary that the States be prevented from giving relief at a time when the Federal Government itself was doing nothing. If the decision had been the other way in the Knickerbocker Ice Co. case, and State compensation acts had been allowed to apply to maritime injuries, such acts would all have been obliged to give way upon the passage of a uniform Federal compensation act. It seems an undue refinement, therefore, to oust the States from the protection of maritime workers at a time when Congress has provided no protection. In the last analysis, the protection of maritime workers is a local problem, not a national one. The crippled worker and his family are burdens upon the States, not upon the National

Government, and the primary purpose of compensation legislation is to protect the community and its citizen workers against poverty due to industrial injury. With this protection the Federal Government is not concerned.

However this may be, the decision of the United States Supreme Court upon the subject is for the present binding, and the States can do nothing more officially. This leads us to a survey of the national situation.

The first law which Congress passed for the protection of seamen of any importance is the La Follette act in 1916. This improved the condition of seamen materially along the line of better safety and living conditions and protection against abuse. It did not touch upon compensation for injuries. It met with extremely vigorous opposition upon the part of shipowners and was only enacted after a very bitter fight, although every land employment had long since been put under greater obligation for the comfort, health, safety, and welfare of employees than the La Follette act imposed upon shipowners. Even shipowners in coastwise shipping opposed it, although immune from foreign competition.

The next measure was the act of October 5, 1917, above mentioned, which the Supreme Court of the United States held unconstitutional in the Knickerbocker Ice Co. case. Following this, Congress, in March, 1920, passed an abortive measure providing a right of action for wrongful death for all injuries occurring upon the high seas. This gives only a remedy by damage suit for negligence of the same type as that superseded in the various States by compensation legislation. It was unnecessary, as the Jensen and Knickerbocker cases still permitted State statutes to be applied under such circumstances, and practically every State has such death statute. It was an anomaly, in that it limited application of such statute to injuries occurring on vessels outside the 3-mile limit and did not provide the same protection for injuries occurring in harbors, although admiralty law applies equally to injuries upon navigable waters, in ports or harbors, or upon the high seas.

A later provision, section 33 of the Jones bill, passed in June, 1920, by Congress, goes further. That section places all seamen under the protection of the Federal employers' liability act, which act will be remembered as the one giving rights of action to railroad employees injured in interstate commerce. At the present time seamen are upon a par with railroad employees in interstate commerce with respect to redress of injuries. This law is largely inadequate. The railroad act is one giving a right of action for negligence only and is not based upon compensation principles. At the time of its adoption it was an improvement upon contemporaneous negligence laws, but has since been superseded by the adoption of State workmen's compensation acts. The Jones bill is, however, a great improvement upon the previous state of the admiralty law. A serious defect is that it applies only to seamen and apparently does not include stevedores or longshoremen within its operation. It is profoundly to be hoped that it will be superseded at the next session of Congress by a uniform Federal compensation act applying alike to maritime and railroad workers.

The prospect of a uniform Federal act at the next session appears to be good. Such a measure was drafted in California three years ago, and introduced by Senator Johnson of California, but was not brought up for passage, the law condemned in the Knickerbocker Ice Co. case being put through instead. Since that time, the writer is informed, the bill has been with the United States Shipping Board for review before introduction. Just after the decision in the Knickerbocker Ice Co. case, last May, the question was taken up hurriedly in Washington. According to my information the Shipping Board, upon noting the inclusion of section 33 by Senator Jones in his bill, being the provision above discussed, returned Senator Johnson's bill in a hurry, with a statement that it met their entire approval. It was then too late to press for passage of a uniform compensation measure, as Congress was about to adjourn. Hence section 33 of the Jones bill was included as a stop-gap until the next session of Congress. Several other drafts of uniform Federal compensation acts for maritime workers are now being prepared, one by the American Association for Labor Legislation. Both political parties have declared for some such measure, although the Democratic platform limits this recommendation to a uniform compensation act for workers engaged in loading and unloading vessels, and does not include sailors. It is to be profoundly hoped that Congress will provide a thoroughgoing reform of the present provisions of the maritime law in this respect.

After all, the best solution would be to frame a thoroughly efficient Federal compensation law, applicable to all maritime workers, and to railroad employees in interstate commerce as well. I do not believe any of the States which have tried to make their compensation laws applicable to maritime injuries have felt that the matter should be permanently regulated by State laws. The desire to apply State laws has been, instead, because of a desire to provide some very necessary relief to seamen until Congress should get around to provide a uniform national act. Three principal advantages of such Federal act are:

(1) Uniform imposition of burden upon all employers engaged in maritime commerce, avoiding the conflicting standards of divergent State laws.

(2) Opportunity to provide a compensation measure of high standard, superseding such acts in States where the compensation law is inadequate or nonexistent.

(3) A uniform Federal act will also avoid clashes between the compensation acts of different States based upon the question of extraterritorial application of such laws.

I think this association ought to go on record as favoring a uniform Federal compensation act for maritime workers, and I have submitted a resolution to that effect, of which I hope the resolutions committee will think favorably. It provides for the approval of a Federal act, and also a suggestion for the committee to take up the matter with the different agencies now working on drafts of such an act and endeavor to secure united action on some measure on which all can agree, instead of having the action by the different associations, each conflicting with the other. I haven't time to speak in detail of the provisions which should be in a Federal bill. There

are three things I could summarize which I think are extremely important: First, the standard of compensation benefits should be equal to the best State compensation law now in existence. The Federal compensation law should not be inferior to the best State legislation and, if anything, should set a model for State legislation. In the second place, it should be provided that the limited liability act should not defeat the recovery of a death benefit in case of death of a maritime worker. Such law should be exempted from the operation of the limited liability act, and provide that the dependents of maritime workers who are lost at sea shall get their death benefits just as much as any other person under the compensation act, any other dependent, is entitled to a death benefit. In the third place, there should be provision for concurrent jurisdiction in the Federal courts and in the State compensation commissions and boards to administer the provisions of this law.

In my judgment, the matter upon which most emphasis should be laid, apart from a high standard of benefits, is that the State boards and commissions should be given concurrent jurisdiction with the Federal courts in the enforcement of the Federal law. I think this can be done without constitutional objection, and it is now in fact being done with respect to injuries sustained by railroad employees in interstate commerce. In the latter case suit can be brought under the Federal law in either the Federal or the State courts. The advantage of concurrent jurisdiction in State industrial accident boards and commissions is that such provision will eliminate the passing of claimants from one court to another, with the danger of each court taking the view that the suit should be brought in the other court. In our handling of railroad injuries it frequently happens that an employee files an application with the commission for compensation under the State law and it is finally determined that the suit should have been brought under the Federal act and before a tribunal. If such employee sues first in the courts, he is often told that he should have sued in the commission, and by that time his claim for compensation is doubtless outlawed. If the suit be brought before the commission, the commission having power to apply either the State or Federal compensation law, as the facts may appear, this confusion is avoided. There is no possibility of the claim being outlawed or claimant being told to commence his suit over again in a different court, and the worst that can happen, if the decision of the board or commission be reversed, is that the case will be sent back to the same body to apply the other law upon the testimony already taken.

Just one other point about interstate commerce. There has always been a question in my mind, assuming that Congress got around to pass a compensation law for railroad employees, whether that should be connected up with maritime. Congress has given a little indication on that, however, in the Jones bill, passed in June of this year, which put seamen and railroad employees under the same law. Now, with that act of Congress it might not be difficult to have a uniform compensation measure applying both to seamen and to railroad employees in interstate commerce. It would simplify matters if that could be done, and it is only a question of political strategy as to which is the wisest course. There is no apparent reason why railroad employees in interstate commerce should not have the benefits

of compensation acts, and there are various ways that can be done. Probably the best way is a uniform Federal law with concurrent jurisdiction in the States.

INTERIM MODES OF RELIEF.

When the decision was announced in the Knickerbocker Ice Co. case, various California stevedoring concerns immediately took up with our commission, and with their insurance carriers, the matter of continuing under the State workmen's compensation act, the Supreme Court of the United States to the contrary notwithstanding. They took the position that experience for some years under the State compensation act showed that such act was more beneficial to the employer than liability under the maritime law, and they desired some way by which they could continue to receive immunity from suits in admiralty. The employees also intimated that they would be very much dissatisfied unless their employers continued to allow them workmen's compensation protection, and further intimated that labor disturbances might arise unless compensation protection be given them. It was, therefore, put squarely up to certain insurance companies whether they would continue to receive the premiums offered by the employers as theretofore and to pay losses under the compensation act as losses should occur.

Some of the steamship owners also took this view, especially after the Jones act, which placed them under the same obligation as that owed by railroads to their employees in interstate commerce, had been called to their attention.

As a result of this pressure, a tentative agreement has been worked out to last until the passage of the proposed Federal act, whereby insurance carriers will continue to receive premiums upon their compensation policies as heretofore, and will pay losses upon the scale of benefits provided by the compensation act. In the event of disagreement as to the application of the compensation act, the California Industrial Accident Commission is to be made the arbitrator of the claim. In return for this arrangement the injured man is to be requested to, and doubtless will, in most cases, sign a release of all rights in admiralty in return for the written agreement of the insurance company to pay him such sums for his injury as he would be entitled to receive under the compensation act, if applicable. At the present time, this arrangement is working nicely and everybody seems satisfied.

In addition, a few employers now sign contracts with their men at the time the men enter their employment, in advance of any injury, agreeing that if the man shall be injured while at work he shall be paid for such injuries the sum of money which he would be entitled to receive under the workmen's compensation act, if applicable, the men for their part agreeing to accept such payments in lieu of all right of action under the admiralty law. The validity of the latter agreement, entered into in advance of any accident, is open to some doubt as a matter of law. The making of such agreement after the accident, however, appears unobjectionable. With these two methods a modus vivendi has been reached whereby employers and employees are both satisfied and the State workmen's compensation act is prac-

tically in effect by agreement to the satisfaction of all parties. Of course, this is largely a gentlemen's agreement, and some departure may be expected from it as time goes by, but probably not to a sufficient extent to warrant repudiation of this understanding between employers and employees.

This, of course, is only a temporary arrangement, and we hope an adequate Federal act will soon be enacted which will finally solve all of the present difficulties.

DISCUSSION.

The CHAIRMAN. I am sure I sense the feeling of the association when I express to Mr. Pillsbury our deep appreciation for his coming here and giving us this illuminating and delightful treatise on this subject. There are a few minutes still left, and if there is anything any of you gentlemen desire to say on these subjects we will accord you a few minutes.

Mr. LLEWELLYN. In connection with Mr. Pillsbury's remarks on the subject of maritime and interstate commerce employees, it occurs to me that Federal legislation on that subject ought also to cover the relatively small class of employees who are found on military reservations and who are thereby excluded from the compensation acts. In Washington, in connection with the Camp Lewis reservation, which is quite extensive, there are quite a number of loggers and mill owners, and there may be from time to time other people operating there, employing a number of employees. They are not under our jurisdiction because the Federal Constitution reserves to the Federal Government exclusive jurisdiction. I presume what Mr. Pillsbury said applying to railroad employees would apply to all employees engaged in interstate commerce, and interstate telephone and telegraph companies, but I think the Federal reservation people should be covered too. Also, I would like to suggest that this act contain such definitions as are possible to enable a determination of what lies under Federal jurisdiction and what lies under State jurisdiction. I realize that is not possible in all cases.

Mr. LEE. It seems to me this argument is a little premature. We have no resolutions. It seems to me if the argument is to be of any advantage it ought to be at the time the resolution is presented.

The CHAIRMAN. The chair will rule that the gentlemen from Maryland is technically right, but the gentleman from Washington may proceed.

Mr. CONNELLEY. I would like to ask Mr. Pillsbury if in California they have a mothers' pension act? In Pennsylvania we have what is known as the mothers' pension act.

Mr. A. J. PILLSBURY. We have what is known as the mothers' pension fund—one of the regrets of my life is that I didn't invent that term, "pension fund," and prevent children making a pauper record—$6.50 for every half orphan, and I have forgotten what it is for a full orphan, but it is a pauper fund. It is distributed to children in orphanages all over the State and in county asylums, and to children in their own homes, giving the widow so much. It ought to be called a widows' pension, but we have gotten the name attached to it;

it is the same old pauper relief fund, though, that it was in the first place. It is a kind of a social pretense to call it a widows' pension. It is a good thing, nevertheless, because it takes the curse of pauperism off the people, but where we find any of our dependents receiving that aid where the compensation is insufficient or it has expired we know they are receiving public charity and we want to stop it.

[Session adjourned.]

CHAIRMAN, A. J. PILLSBURY, COMMISSIONER, CALIFORNIA INDUSTRIAL ACCIDENT COMMISSION.

ROUND TABLE.

Mr. FRENCH. The arrangements for the dinner have been completed, and we are going to use the room directly across from this, known as the "Borgia" room, at 7 o'clock this evening. We would be glad to have any present who would like to attend this dinner.

To-morrow morning at 9.30 we meet at the Ferry Building, at the foot of Market Street, to take the train for Mount Tamalpais, and I should like to have any additional names to the list given me this afternoon.

The chairman for this afternoon's session is my colleague on the California commission, Commissioner A. J. Pillsbury. Mr. Pillsbury and I have had, perhaps—I think surely—the longest association of any two men in the country in administering a workmen's compensation act. When the first appointments were made, September 1, 1911, a little over nine years ago, we were appointed and have been on the job ever since. I don't know how much longer we will be together, but probably it will not be our fault if the positions do not remain as they are for some considerable time to come. Mr. Pillsbury requires no introduction at my hands. He is known personally or by name to every man and woman who has made any study at all of compensation and kindred matters, and the compensation history of this country has his name indelibly written on its pages. I take pleasure in introducing my colleague, Commissioner A. J. Pillsbury.

The CHAIRMAN. I think I know how to take advantage of an opportunity. This morning I had all the time that I wanted, and now I can play safe and shut off some of the rest of you. I understand that the hope is that we shall be able to get through this afternoon's program in time to take up some convention matters, resolutions, etc., so that the dinner will not be much interfered with by discussions on shop work. Opposite each name for this afternoon's session has been placed 10 minutes. I shall try to keep track of the time, and I have always noticed this: That audiences have peculiar ways with them. Sometimes they applaud vigorously because they like what you say, and sometimes they applaud vigorously because they are glad you have gotten through. To play safe, we will try to stay within the 10 minutes this afternoon.

Now, there is a variety of subjects on the program to be talked about. Each gentleman called can select the subject that suits him best and talk about that, or he can talk a little about all of them, just as he pleases.

The first name is that of Mr. C. A. McHugh, of Virginia, but I understand he is not here, although a representative of the Virginia

commission is here, and perhaps he would like to take the place of Mr. McHugh. [The representative from Virginia was found not to be present in the room.] We will pass him. Mr. Robert E. Lee is next on the program.

Mr. LEE. The first subject is occupational diseases. Well, we have no experience with occupational diseases. It is merely a theory with us. I am not aware what the judgment of those dealing with compensation matters may be, but my own judgment is that certainly in many of the occupational diseases I see no valid reason why there should not be compensation paid for men so incapacitated. I do not see any distinction between the man who loses a hand, or a finger, or an eye and the man whose whole general health is impaired. I can understand there is some difficulty in applying it. That is a matter of detail, which it seems to me will probably be worked out satisfactorily to all concerned.

I shall not attempt to discuss the subject following [hernia]. We had a very learned discussion on it yesterday, and I am frank to tell you that I have no information to impart on that subject that would be of any value, except as to how we handle them. That I attempted to bring out in this discussion yesterday afternoon. We do not know much about hernias down our way. The doctors say they do, but we find out very often that they know a great deal about the hernia after you have it, but they do not know very much about how you got it. In most all the hernia cases the claimant can very easily establish sufficient facts to justify us in giving him the benefit of whatever doubt there exists, and in awarding compensation. Our method is this:

If in a hernia case the claimant is of sufficient physical strength, and the doctor states that he can safely undergo an operation and an operation is advised, we say to the claimant, "You have your choice under our practice. We could not force you to undergo an operation if we wanted to, and we have no desire to. Either you take the operation or we will award you eight weeks' disability, which under the old law is six weeks' compensation," our waiting period having heretofore been two weeks; it is now three days. That is the way we handle them. Whether or not that is the correct method, I do not know. That's the practice I found in the commission, and it seemed to have given fairly good results and fair satisfaction, and we followed the practice as established. I was interested yesterday in the discussion, but I am frank to say to you, with all I heard I go back to my commission with no new idea on the question of how we are to determine the hernia cases, and I presume that's due to the fact that there is no way that has been suggested that much surpasses the way we do it. Some do not give any compensation if an operation is refused; others give two weeks', and we give six weeks'. I am frank to confess I am unable at this time to say what is the best practice. Having heard nothing different from what I knew when I came, I will be strongly inclined to follow our present practice until someone shows me clearly there is a better method that might be adopted.

I don't know why a layman should have much to say about back strain. It seems to me that that might put a man in a permanent total disability class; it might put him in a permanent partial dis-

ability class; or it might put him in a temporary total disability class. We would naturally meet that question as it arose, and in any one of those situations we would have to administer the law to meet the facts in the particular case. If the man's back was strained and he was incapacitated so that he could work and earn money but not as much as he had, under our law we would be called upon to give him half the difference between what he did earn and what he now earns, up to the maximum of $18, if his earnings ran so high. So I have nothing on that subject that I might impart to this gathering that would give them much enlightenment on the question. It seems to me that it is largely a matter for the doctors and the individual. It is just one of the kind of injuries in which a great deal depends upon the man before you, as to whether he can work as he did, and whether he is able to go out and take his place in the industrial world, and our method of dealing with it has been that we take into consideration all the surrounding circumstances. If we have a case where a doctor for the insurance carrier or the self-insurer or the State fund, as the case may be, says there is nothing to indicate that the man ought not to return to work—"we find nothing that would lead us to believe that he should be incapacitated"—and the man claims positively that he has such a condition that he can't work, and that he suffers inconvenience and pain and inability, we take into consideration the kind of man we are dealing with, as to how much credence we can place upon what he says when his word is brought into conflict with the medical testimony. We find out whether or not he has been an honest, consistent workingman, whether he is a man of reliability, whether he presents before us the appearance of a man whose word we would have no reason to dispute when he is dealing with something of which most of us know little and even the doctors can't be certain, except to give the best judgment they possibly can under the circumstances.

If we find that a man has been an honest, upright, conscientious, productive workingman, and all of a sudden, as a result of some unusual strain or injury, he is cast into the discard, we give the man the benefit of the doubt, and we say to the doctors, "In this case we will have to take the honest workingman's opinion against yours." We don't believe that the man has all of a sudden degenerated into a man unworthy of belief in his community. As to that, I know not whether we have adopted the ideal system or whether we are doing it in the ideal way. We are doing it as we understand it, with the best light we possess, and we are doing it, we hope, in a practical and satisfactory way.

How second injuries are to be disposed of is a question that sometimes causes considerable embarrassment to the commission. I have a case now in mind that perhaps might do more toward presenting what I would like to say than by my attempting a discussion of it from my standpoint. A man came before us the other day who, back before the compensation laws were in effect, lost his foot. Our law allows 150 weeks for a foot. He had a wooden foot. He claims that he got along pretty well with it. He worked with satisfaction to his employer and had the ability to earn for himself a competent livelihood; but he had another accident and hurt his hip, and the doctors claim that the injury to the hip has healed; that he is not suffering a

great amount of disability from that hip. It has shortened, as most fractures do, bringing about a shortening of the limb. But the man claims that now, with this wooden foot, he can not get along as he formerly did, before he had the second injury, and therefore he has an injury that ought to be dealt with from the standpoint of the loss of the leg, and a fair proportion, a just proportion, allowed for the disability he suffers. On the other hand, the employer, a self-insurer in this case, contends that the only thing before the commission is the difference between what the foot was worth, 150 weeks, and what the leg was worth, 175 weeks, to wit, 25 weeks. They say the fact that there was no compensation law does not alter it; that you can not pay a man for a specific injury twice; that you can not pay him for a foot he has already lost, and then on top of that—if there had been a law, you would have had to do it—allow him for the loss of a leg.

Now, I don't know whether or not there is anybody in the convention who has dealt with a situation exactly like that. But that is a proposition that is before our commission, and I am frank to tell you that I shall try to apply common sense to it, as I do to any other case where a man has lost a part—has lost one eye or has been incapacitated and not fully compensated. When I deal with him, I deal with him as a workman who could earn a livelihood, using the wooden foot, getting about and doing that which he was called upon to do. I shall apply, the best I can, a practical rule, allowing him full percentage for loss of a leg, rather than 25 weeks, the difference between the loss of a foot and the loss of a leg. Whether or not that is a reasonable rule to apply, I do not know.

Our accident reports, together with physicians' certificates and such other papers as are filed in connection with them, are numbered, indexed, and filed. Upon receipt of a claim for compensation all papers on record referring to the accidental injury for which compensation is claimed are assembled with the claim.

According to the rules of the commission, which require that notice of every claim be given to all parties in interest, an award in its usual course will be made on the seventh day after claim has been filed. To be made in less time notices have to be waived by the parties in interest. Of 4,377 claims filed with the commission during the year ending October 31, 1919, 213 claims were disposed of before the usual time; 1,917 claims were disposed of on the eighth day; 4,138 claims were disposed of within 30 days; and on December 19, 1919, 15 claims were undisposed of; and of the 4,362 claims disposed of between November 1, 1918, and December 19, 1919, only 224 were pending for a longer period than 30 days. Delay in disposing of claims is frequently due to the fact that some necessary paper is not filed in time for the case to be disposed of on its consideration date. In the case of disputed claims, upon which hearing has been requested, there is sometimes delay because the various parties are not prepared for trial, for some cause over which the commission has no control. The majority of hearing cases, however, are disposed of within 30 days after the claim has been filed. So far as the commission is concerned, every claim can be disposed of within 30 days after same has been filed. Awards made by the commission are of two kinds, specific—that is, an award for a definite number of weeks—and during disability—that is,

during the continuance of the disability. The total benefits under the first class of awards may be definitely ascertained at the time the award is made, but under the second class the total benefits can not be ascertained until the termination of the disability and the receipt by the commission of the actual amount paid. Consequently it is impossible to embody in an annual report the actual benefits awarded during the year.

In the great majority of cases there is no dispute as to the facts, and an award is made in due course. When there is a dispute the case is set for trial before the commission and due notice is given to all parties in interest. The testimony of witnesses is taken, and in the great majority of hearings a decision is rendered by the commission immediately from the bench. The commission prides itself upon the fact that all cases are disposed of as soon as all the evidence is in the hands of the commission. There are contests in about 10 per cent of the cases.

The General Assembly of Maryland at its January session made some very important and material changes in the law. The maximum and minimum weekly compensation were changed from $12 and $5 to $18 and $8, respectively, and the percentage of the average weekly wage was changed from 50 to 66⅔. The total compensation in fatal cases was increased from $4,250 to $5,000. The funeral allowance was increased from $75 to $125. The medical allowance was increased from $150 to $300.

The waiting period was reduced from two weeks to three days. As a result thereof the work of the commission has very materially increased. In June, July, and August, 1919, there were filed 303, 311, and 351 claims, respectively, while in June, July, and August, 1920, there were filed 638, 751, and 882 claims, respectively. Even with this increase in work the commission disposes of every case as soon as it is in proper shape for disposition. The assets of the State fund on October 31, 1919, had reached a half million dollars, and after setting aside reserves for losses, computed on a very liberal basis, together with reserves for all other purposes, a net surplus remained of over $300,000. The surplus is protected by a reinsurance treaty covering all the business of the fund. The expense of operation of the fund is less than 9 per cent of the premium. The income from the assets of the fund now practically take care of the operating expenses, so that from now on the cost of claims is all that is taken from the premium, although the recent amendment increased the cost of insurance approximately 35 per cent. The State fund was able to so reduce the rates that after adding the increased cost due to the amendment a great many of the rates are less than they were before the amendments were passed, and those that have been increased have in no instance been increased more than 18 per cent. The State fund of Maryland is writing over 10 per cent of the compensation business in the State, and each year the business is increasing. The past year has been the best year in the fund's existence.

The CHAIRMAN. W. P. Monson, commissioner of the Utah Industrial Commission.

Mr. MONSON. I shall not take much of your time. How are second-injury cases disposed of? The Utah compensation law provides that where an employee meets death in an industry, leaving no dependents,

the carrier or the employer shall pay into the State insurance fund the sum of $750, from which a fund is built up to provide for permanent total disabilities by reason of second injuries, and also to provide for second injuries beyond what might be the ordinary limits. I will say that during the life of the Industrial Commission of Utah—and I might interpose to say that the movement is yet young in our State—we have had no such case. I am informed by the attorney general that the law requiring stock companies and self-insurers to pay $750 into a competitive institution such as the State fund will not be held constitutional. Some self-insurers have paid their $750 without complaint. We are trying, so as to settle matters, to bring this before the supreme court before the next session of the legislature in order that certain amendments which may be necessary may be made to meet the exigency.

There is another item, that of attorneys' fees. It seems a travesty upon law that there should be a limit set to medical expenses and no limit placed on attorneys' fees. It was stated at one of the earlier sessions of the convention that this was a *workmen's* compensation act. One case we had comes to mind now, that of a man who had suffered head injuries in one of the big coal-mine camps. He was coached, without doubt, by some of his countrymen, and the board was unanimous in the opinion that he was a professional malingerer. He employed an attorney, and the attorney met with the commission twice only; and when, in accordance with the plan suggested by our friend Maclean, of Nevada, the insurance carrier thought it well to make a cash settlement in order to cure the man's disability and a compromise settlement was reached of $750, he claiming that he wanted to go back to Croatia, the attorney put in a bill for $600 of the $750. After we had taken the matter up with the attorney and would not allow the man to pay that much—we rather ran a bluff than followed any legal procedure—he cut his bill to $450, and the injured employee received $300. We believe that the law will be amended at the next session of the legislature.

Mr. CLARK. Did you say *you* ran the bluff?

Mr. MONSON. We cut him off with $450—we called his bluff. We have hopes of the law being amended at the next session of the legislature, leaving the amount of attorneys' fees to be paid in each instance to be determined at the discretion of the industrial commission.

The method of computing average weekly wages followed in Utah is after the order of the California commission. It has given rise to a great many complaints, because the average workingman can not see why the flat weekly salary can not be taken as a basis upon which to compute his average weekly wages rather than multiplying his daily wage by 300 and dividing by 52 in case of a 6-day week, or multiplying by 332 and dividing by 52 in case of a 7-day week. We have had much complaint from the workingmen, who feel that they are short-changed because of the method that we have adopted for computing the average weekly wage, but as at this time most compensation cases are receiving the maximum of $16 a week, which requires a weekly salary of $26.66⅔, and as most workmen are earning more than $26.66⅔, it would make but little

difference. I think 80 per cent of the cases which come for computation receive more than that amount.

Departing somewhat from the scheduled program, or the subjects to be treated, I want to offer one comment, or perhaps a suggestion, on what Mr. Pillsbury said this morning, in respect to caring for these who go beyond the time limit set for weekly compensation. In cases where there are no dependents, and in cases of death before specific injuries have been indemnified, and in cases of the remarriage of widows where there are no children, it seems to me, instead of raising the legal amount, or that stipulated by law, to $7,000, or any other amount, the insurance carrier should not be released by death or remarriage of the widow, but what remains to be paid should be paid into the commission to erect a fund with which to meet these unexpected conditions—that is, they are expected in many cases. In cases where there are no dependents it appears to me there should be a flat death benefit, computed along the lines of the earning power of the deceased, just as though there were dependents, which the insurance carrier should pay into a State fund, to be used at the discretion of the industrial commission, which would be inspired by this movement to know something of those who have been before it to receive compensation. In other words, there would be the milk of human kindness injected into our work; instead of tagging and turning loose such cases and saying, "The insurance carrier will take care of you all right," the industrial commission would follow the cases to the last need.

There is another feature with respect to widows who marry. The Industrial Commission of Utah, having talked this matter over, intends recommending that the legislature pass an act giving a widow who marries a bounty of $2,000 in a lump sum, rather encouraging such widows to get married instead of being the dependents of others or subjected to the evils that prevail throughout the entire country.

There is yet another point with respect to the widows and children. We have cases where widows have been drawing their compensation and insurance carriers have asked to cut off the widow's proportion, allowing the part for the children to stand. We have not allowed that, and, as our friend Lee said, there is only one thing to do, as no hard and fast rule can be laid down, in my humble judgment, and that one thing is to follow the line of hard-headed common sense along humanitarian lines.

The CHAIRMAN. We will next introduce Mr. George Fisher, member of the Idaho Industrial Accident Board, who has spoken to us before.

Mr. FISHER. While the Industrial Accident Board of Idaho has had some experience with all of the suggested topics for discussion this afternoon, it has been so slight and inconsiderable that it is probably not worth while for me to go into detail in any discussion along that line. I might read just what our law says on the subject of hernia. Our law says that "in all cases of hernia resulting from injury alleged to have been sustained in the course of and resulting from various employment there must be proved: First, it was an injury resulting in hernia; second, that the hernia appeared suddenly and immediately following the injury; third, that the hernia did not

exist in any degree prior to the injury for which compensation is claimed." All of the experience that we have had with hernia cases has amounted to 90 out of 13,000 cases of accident. Out of the 90 cases of hernia, there have been but 10 rejected because of the terms of the law, which places the burden of proof upon the claimant. So you can judge from that that the board uses its discretion whenever it is possible, and when the law is claimed by the defendant that does not prevent it from so doing. I might state that our statistics have shown that disability in hernia cases has been from 3 to 21 weeks; compensation has ranged from $15 to $250; and medical cost has ranged from $57.50 to $320. We have discovered that the average cost of a hernia case has been $150. For a while the board adopted the plan, in cases of hernia where an operation had been prescribed and suggested, that if the claimant refused to have the operation we paid him $150; but later on we found it more advantageous to do away with that and insist that the hernia case take advantage of the operation or we would suspend the compensation until he did, agreeing with the consensus of opinion that it is an obligation due society to return the afflicted one to industry as soon as it is possible and practicable.

I might state with reference to occupational disease that while the Idaho law is unlimited in medical treatment for injury, as well as for sickness contracted in the course of the employment, other than venereal disease and that as a result of intoxication, it does not compensate for sickness unless the sickness be a result of an injury. In all of our experience we have had only three cases that have had to be rejected on account of occupational disease. Two of those cases were lead poisoning and the other case was a case of bronchitis.

It is encouraging to our board to know that the practice now largely prevails in all of the Coeur d'Alene mining district among the self-insurers and, in fact, among mostly all of the mines, the majority of whom are self-insurers, of paying for occupational disease regardless of what the law says, and we are glad to commend them, to place our stamp of approval upon the principle that it is very proper to compensate for occupational disease, a disease that is contracted in the matters incident to one's employment, in so far as it be not a contagious disease.

A DELEGATE. You allow the mining companies of Coeur d'Alene to collect $1 from each man, don't you?

Mr. FISHER. We have a hospital contract. That is the way the injured workmen or the employees have arranged for getting the law to cover medical treatment for sickness. They have the privilege of waiving the section which says the employer shall bear the entire expense of medical treatment for injury and of entering into an agreement whereby medical treatment may be extended for sickness as well as injury. This was brought about by the workmen contributing to a fund, a hospital fund, not to exceed $1 in any case, except after a hearing set for that purpose. We have had hearings along that line in the Coeur d'Alene district, and it has been shown that adequate treatment under the high cost of material and medicine, and so on, could not be given for the dollar, and the men themselves, through their representatives, have mutually consented to pay

into that fund $1.25, and then the employer contributes 52 per cent of that, or 62½ cents, so that the very best treatment can be given.

Back strain and second-injury cases have bothered us very little. According to the tabulation of the cases of second injury, not many second-injury cases have been reported to the board. Only one of much seriousness has come up for consideration, and that one is being settled now by arbitration. It is the policy of the board to consider the effects of the first injury in making its decision regarding the second. Insurance carriers have concurred in this spirit. The only case worthy of note is the one mentioned, a case of noninsurance at the time of the second accident, which is being arbitrated.

The cases of preexisting disease have not given the board any very perplexing problems in disposing of them. When compensation is claimed the policy has been to give the claimant the full benefit of the act, as far as injury is concerned. Sometimes the average length of the disability for the injury is given, making allowance for the aggravation caused by the systemic condition. I mean by that we have taken the experience of the longest period in any case of a normal nature, and when preexisting disease has entered into it we allow an amount equal to the amount given for a normal case—the maximum amount given in a normal case. The insurance carrier and the employer have been quite agreeable to this method, and any serious complication is settled by arbitration. Two or three cases made serious by tuberculosis have been settled by lump-sum agreement between the employer and the claimant. The preexisting disease cases have covered tuberculosis, varicose veins, erysipelas, trachoma, osteomyelitis, and old age. The claims rejected because of preexisting systemic conditions number but 19 in our experience, 3 for venereal disease. The others ranged from uritis, kidney trouble, hemorrhoids, infantile paralysis, dermatitis, rheumatism, heart failure, trachoma, and gastric hemorrhage. We have endeavored at all times, regardless of any of these conditions, to treat the man as we found him. I remember a case of a preexisting condition with reference to a workman's limb that had been broken at one time, and he was more or less of a cripple afterwards. However, he was able to do his work and draw his wages. One evening, coming over the dump from work, he accidentally slipped and fell, and a second injury was caused, and the insurance carrier claimed exemption because of the fact that there was a preexisting condition; but the board denied the contention for the reason that the man's condition did not hinder him from doing his work regularly and drawing the salary and giving the same service that others had been doing.

If I may be pardoned for just a moment, there was an item passed over in the discussion of methods to secure to workmen the full legal compensation for disability. The point I wish to make may perhaps be one that is familiar to you all, but in the event that there may be some to whom it may be of some assistance, I wish to draw it to your attention. It is this: Wherever there is a maximum, and in our State the maximum is $12 per week—55 per cent of the wages up to a maximum of $12—there is no trouble in making the calculation for a whole week. For instance, the disability exists, we will say, for two weeks and three days. There is no trouble in figuring for the

two weeks; if the man gets over $3.64 per day, he will get the maximum of $12; but what are you going to do about the fractional days or parts of the week? In the beginning of our experience, I did the figuring of compensation myself until the department developed to such an extent that we got clerical help, and of course this point came up. Perhaps you have had the same experience and have eliminated all the trouble with reference thereto. It is this: Instead of paying the man 55 per cent of his wages and then applying the maximum, some have attempted to use the maximum as a basis upon which to calculate the fractional part of the week. For example, wages $6 a day, 6-day workers, 3 days' full wages $18; 55 per cent of this would be $9.90; 3 days, or three-sixths or one-half of the week, upon the basis of the maximum would be three times $2, or $6, the man would get in the case where the maximum was applied first; and in the other case where he was given 55 per cent of his wages and then the maximum applied he would get $9.90, making in this particular instance, you will see, a difference of over 50 per cent.

May I ask a question of our worthy chairman? He can use his time to answer it. Our law provides a payment by the employer or his surety into the administration fund in a fatal case where there are no dependents, of the sum of $1,000, and up to the present time we have collected more than enough by the payment of this $1,000 into the fund to pay all of the expenses of the board from the beginning. But the question or the trouble that we find is, how do you determine actual dependency? Claims are made from all parts of the world as to dependency upon the deceased. What kind of proof do you accept? What kind of proof do you demand in order to set up the legal claim of dependency?

The CHAIRMAN. Perhaps some other speaker will be quite willing to answer this question. I will now call upon John P. Gardiner, of Minnesota.

Mr. GARDINER. Like many of the other States, Minnesota has been giving considerable attention the past few years to the question of the inclusion of occupational diseases among injuries covered by the law. Some effort was made at the 1919 session of the legislature to secure action, but it failed of success. The proposal which was placed before the legislature at that time was that the change be made in the same manner as a number of the other States have made it, namely, by making the law an injury law instead of an accident law. The point of view was at once encountered that any change should be through an enumeration of the diseases to be covered, and should have some very definite provisos, other than those already in the compensation act, to insure against fraudulent claims.

The inspiration for this method of approach comes, of course, from the British act. Challenge was also made as to how much accurate information was on hand with reference to the prevalence of occupational diseases. We have an occupational disease report law, dating from 1913. This law is very limited in scope, places the duty of reporting upon the physician, and has been almost a dead letter from the start. Its existence has simply tended to throw doubt upon the occurrence of occupational diseases. Not having had the opportunity to make any special study of the situation, the department of labor and industries was unable to present data

which showed that any appreciable number of persons were suffering from occupational diseases, and therefore in need of the sort of coverage provided by the compensation act.

During the year which has elapsed since the legislative session, however, we have given attention to this problem, and even though the information which we have assembled is merely such as has casually come into the department through various sources, we feel that we have enough now to warrant some pretty definite conclusions in regard to occupational diseases in our State. For one thing, the variety is so great as to cast serious doubt upon the advisability of any policy of enumeration in the law. It is clearly not a matter of making a simple list of certain poisonings. Any list made, even if it included every type of case thus far encountered, would be certain to omit other groups of ailments just as clearly arising as a result of the nature of the employment and having just as sound a claim in equity to compensation.

It has been a revelation to us, and it will no doubt be illuminating to the legislators, to note the variety shown by the 146 cases listed individually in our table, which covers the cases coming merely in an incidental way to the attention of our department within the past year. Without attempting a thoroughly scientific classification, we found we had the following types represented: Anthrax, lead poisoning, zinc poisoning, mercuric bichloride poisoning, phosphorus poisoning, gas poisoning, arsenical poisoning, cement poisoning, glue poisoning, dye poisoning, leather poisoning, miscellaneous poisonings, fumes, Hodgkin's disease, eczematous ulcerations, salt sores, cattle itch, occupational synovitis, occupational lesion, metal dust poisoning, tuberculosis, rheumatism, ptomaine poisoning, and poison ivy.

Another thing which impressed us in regard to the cases in our study was the distinctly occupational character of the diseases covered. With very few exceptions, the relation between the disability and the nature of the employment, or the conditions under which the work was done, was so clear that controversy over the question of origin would be improbable. This was of particular interest in view of the feeling so often expressed by employers that special precautions are needed in connection with coverage of occupational diseases by the compensation act. No one is disposed to make the payment of compensation for such disabilities so loosely guarded that a large number of diseases of nonindustrial origin may be included, but, on the other hand, special restrictions would not seem justified if experience shows that in practice no great difficulty is found in determining the origin of the disability.

Here is a place where the States which now compensate for occupational diseases under a general clause could be of assistance. The statistical information thus far presented appears to be conclusive that such a plan to cover occupational diseases does not add very greatly to the cost of the compensation act, as far as increasing the total paid for indemnities is concerned. Not much evidence is available, however, as to the amount of litigation in connection with occupational diseases. If some careful studies of this nature could be made, it might materially help in determining the case for those who question if an enumeration of occupational diseases has any merit in

logic or equity, and who are inclined to believe that coverage through a general clause is feasible, without creating numerous controversies and saddling industry with responsibility for diseases which are not attributable to it.

Two other factors in the occupational disease situation in our State are likely to have a bearing upon legislative action to amend the compensation law. One is that the courts are interpreting the compensation law to cover these disabilities whenever it is possible to do so by the broadest construction of our definition of an "accident." We have one of the narrowest definitions of an accident in the country. It must be "sudden and violent" and must result in damage to the physical structure of the body. Despite its narrow limits, the courts have held that freezings, inhalation of gas fumes, and tin poisonings resulting in a sudden breakdown conformed with the test of the law. The Supreme Court has indicated that it would have so ruled as regards Hodgkin's disease had there been any substantial evidence that it resulted from the inhaling of hydrochloric acid fumes.

The second point in the legal situation which has drawn attention is the favor with which the Supreme Court has recently regarded a large verdict in a common-law suit for damages for contracting tuberculosis. A jury had awarded $18,500. An appeal was made on the ground that this was excessive, but the Supreme Court thought otherwise. All things considered, we believe the signs are favorable to action by Minnesota at the next session of the legislature upon the proposition to make occupational diseases compensable equally with injuries by accident.

Not only should this be done but on the principle that prevention is preferable to compensation, a strong movement should be launched to improve industrial hygiene to such an extent that occupational diseases will be greatly reduced in number. Certainly there is as much reason for such a movement as for the safety movement in the accident field. The results of accidents are more quickly perceived, and probably this accounts for the focusing of attention upon accident prevention. But just because the effects of disease are so insidious, and because it will be difficult in some instances to connect the disease with the employment, it is all the more necessary that every possible effort be made to lessen the chance that employees will contract diseases as a result of the conditions of their employment.

I think there has been one point overlooked in all of the discussions—that as to the remedial legislation necessary to strengthen compensation laws in the various States, and the manner and the method of procedure by which we are to obtain those results. It has been stated that the compensation laws are primarily for the benefit of the workingmen. That being true, then is it not a fact that in order to strengthen the compensation laws along the lines which have been discussed here at the convention we should get the forces of labor with us?

It has been stated, and it is an old saying, that anything that is not worth asking for is not worth receiving. The employers are represented by the employers' representatives at all of the legislative sessions. The insurance companies are represented by representatives from the insurance federation. And labor, of course, is also rep-

resented by its representatives. There are very few men in the ranks of labor, organized or unorganized, who realize what a body of men such as are gathered here to-day are doing for their benefit. It is a matter of education, and when the legislature has the forces of labor in its presence during a legislative session it is going to take cognizance of their needs and of their wants to a point that is within the bounds of reason.

I do not think there has been anything mentioned in any suggestion at this convention for remedial legislation for compensation acts that could ever be considered anything but reasonable and just, and I say that, like accident-prevention work, it is a matter of education, in order to get this organization on record and in good standing with, and obtain the confidence of, the laboring class of people.

The CHAIRMAN. The next speaker will be Mr. George D. Smith, chairman of the Nevada Industrial Commission.

Mr. SMITH. Before commenting on all of the subjects of to-day's program, to enable you to know what we are doing in Nevada I will say the Nevada act is elective, and those who elect to come within its provisions are required to insure in the monopolistic State fund. For this reason, we do not have some of the problems which have bothered the other States, but our procedure is somewhat easier, as indicated by Mr. Hookstadt earlier in the proceedings.

On the subject of occupational diseases, we have compensated every case which could be definitely traced to the employment. We have compensated cases of anthrax, lead poisoning in the case of an assayer who put his toast into his assay oven, and any case of that character which could be definitely traced to the employment. Likewise, every case of hernia in Nevada which has its origin in the employment is compensated to the extent of two months' temporary disability. The maximum in our State, and practically all of our cases for permanent partial disability, under which we class hernia, is $60 a month. The compensation therefore has been $120; the medical cost has averaged somewhat in the neighborhood of $200.

Back strain has annoyed us, although in every case we have compensated it, and this is one of the classes of cases in which our medical department has seen fit to call the attention of practicing physicians of the State to the likelihood of the condition being due to focal or other infection, and has suggested that if the source of the infection could be removed the period of disability would be lessened.

Second-injury cases are covered in our law, which provides that where there has been the previous loss of a hand or a foot or an eye, and there is a subsequent loss, the total loss shall be determined, and from it shall be deducted the previous loss before settlement of compensation is made. In a case where a man who had previously lost his eye, which is a 25 per cent disability under our law, in a subsequent accident loses the remaining good eye, he is compensated 75 per cent as much as a man who lost both eyes in the same accident.

Preexisting diseases, when accelerated by a subsequent injury, are compensated in full, on the theory which was expressed by Dr. Donoghue yesterday and by our chairman to-day, that the employer takes the man as he finds him, and is responsible for any disability which results from industrial accident.

We are not bothered a great deal by attorneys in Nevada. As a matter of fact, the employers and attorneys of the State drafted

the compensation act. At the time of its conception it was not very beneficial, and has been added to in each legislative session. The attorneys when they act for a claimant do it gratuitously. I have never heard of a man receiving $750 who had to give a major portion of it to any attorney. We have been bothered with foreigners who come to this city. We rely on the specialists of San Francisco, Los Angeles, and Salt Lake in our cases, and have occasionally had men come here who were met at the ferry by some of their countrymen, Slavic people, and these runners, as they are called, attempted to interpret the men's feelings. The specialists who dealt with them were annoyed by the interference of the runners, who not only attempt to bribe the specialist by threatening to keep from him subsequent cases but actually get men to feign symptoms which do not exist. When we get the man back into Nevada we usually handle him fairly satisfactorily.

Reports of all reportable accidents are obtained, for the reason that to initiate a claim we require a report from the employer, and the employers are very well educated by this time to the fact that immediate reports save them endless correspondence later. A second report comes from the employee himself, and a third, or the report of the physician, is supposed to be independent of the other two. It does not make any difference which one of these reports reaches the office first, it becomes a reported accident, and request is made for the reports which substantiate the whole thing—both from the employer and from the employee, if the physician's report was first.

Because of the fact that the Nevada act is elective, jurisdictional conflicts do not bother us. We are far removed from the ocean, so maritime cases do not come within our jurisdiction. And those cases of railroads which come under interstate regulations do not bother us, for the reason that they have not elected to accept the terms of the Nevada industrial injury act, and they settle with their men under the Federal liability. Those railroads which are intrastate in themselves have, with one exception, insured with the State fund and are contented to secure compensation by paying the rates assessed against them and leaving it to the commission to pay the benefits. The method of computing monthly wages—because we pay compensation in Nevada in accordance with the method of paying wages—is, where the occupation requires Sunday work, to multiply the daily wage rate by 28, and where it does not require Sunday work by 25. Sixty per cent of that sum, but not to exceed $72 in the case of an unmarried man, is paid for temporary disability, and, as I stated before, well over 90 per cent of our cases are maximum cases and the matter of computing weekly wages is not a controversial one with us.

The CHAIRMAN. I think that concludes the program, and if it is the pleasure of the executive committee to take up the business of the convention, so as not to have it interfere with our dinner to-night, I think it would be appropriate for me to surrender the chairmanship to Mr. French.

Mr. KINGSTON. I think there ought to be room for a little discussion. The afternoon is yet comparatively young, and I would suggest Mr. Lee be given opportunity of replying to the discussion. I

think we would have time to do that and still get through with our business.

The CHAIRMAN. The resolution committee thought there might be considerable time taken in the introduction of resolutions. What is the pleasure of the convention? Does anyone wish to talk?

Mr. LEE. Might I make this suggestion? How would it be, if the reports are short, to get them out of the way and then take up the discussion and let us discuss until those who do not want to hear any more discussion so indicate by leaving the hall?

The CHAIRMAN. Are there some who prefer to take up the regular business of the convention and finish that, and then have our talk afterward?

Mr. VERRILL. It seems to me if there is to be any round-table discussion proper of the subjects discussed here, it should be now, while the papers which have gone before are fresh in the minds of everybody here. If there is a shift to the discussion of business and resolutions, the discussion will lose a very great deal of what has gone before.

The CHAIRMAN. What is the pleasure of the convention? Shall we devote until 4 o'clock to round-table talk, or take up the regular business of the convention?

Mr. VERRILL. I move we continue on the round-table talk.

[The motion was seconded and carried.]

Mr. KINGSTON. I will try and get through with what I have to say in comparatively few minutes. I want to make some observations with reference to something that arose out of the discussion this morning. You seemed to put $7,000 as a fair average compensation payable by industry in a death case involving benefits to dependent widow and children. I would like to say for the information of the delegates that in Ontario we raised the measure of compensation at the last session of our legislature to a sum the present value of which now represents on the average about $8,500 for such cases. We formerly paid $20 a month to a widow until her death or remarriage, upon which latter occasion we paid her a lump sum equivalent to two years' pension, and we paid to the widow for each child $5 per month, not, however, to exceed $40 altogether for widow and children. In other words, we said, what seemed always to me a very foolish and very unwise and very impolitic thing, that a workingman should not have any more than four children, because if he had a half dozen or a dozen, compensation would be limited to what he would get if he had only four. I am very glad that has been wiped off our statute books, and now as a result of legislation passed at the last session we pay, not $20 but $40 a month to the widow, and not $5 but $10 a month to the widow for each child, no matter how many children there may be; so that we have, since the new law came into effect, allowed a number of cases in which compensation allowable to the widow for herself and children will amount to as much as $100 a month; that is, $40 a month payable to the widow while she remains a widow, and $10 per month for each of her six children while they are respectively under 16 years of age. Of course, as soon as a child comes to be 16, $10 is dropped off the amount of the pension. The above provisions are qualified by the rule that the total amount

of compensation payable is not to exceed two-thirds of the average monthly earnings of the deceased.

We also made an amendment this last year which involves a very substantial increase in compensation; that is, provision for minimum compensation of $12.50 a week, or if the wages are less than that, then the compensation is to be full wages.

Just a word with reference to the observations which were made, speaking of the "down and outer." It seems to me that the proper way to take care of that type of man, and, of course, we have them in all our jurisdictions, is by an old-age pension system. I do not believe that industry should be saddled entirely with the burden of taking care of such a man, who perhaps from a very slight injury becomes totally disabled permanently. A man, 70 years of age does not need much of a knock to push him over the hill, and once he is down it is very hard to convince him that he will ever again be able to work. Of course, if any such man has met with a serious accident while in industry, industry should take care of it, no matter what his age. But I am speaking now of such a man who meets with a very slight accident, one which to the ordinary man would not amount to anything worth speaking of.

We have just brought into force in our Province a mothers' pension law, which is going to supplement the situation and take care of a number of cases which otherwise would not be taken care of, and now instead of these mothers who have young children (I am speaking particularly of those who do not come under the benefits of the compensation law) being left dependent on charity or on their own hard labor they are taken care of by the State and the local municipality by a sort of joint arrangement under the administration of a mothers' pension board. It is considered the natural duty of the mother to take care of her children, which if properly done gives her enough to do, and it is not necessary any longer for her to leave her children in a day nursery and go out washing or scrubbing to earn a living. The tragedy of this situation has been impressed on my mind by the fact that just across from our office in Toronto there is such a nursery, where a woman can leave her two or three children for the day while she goes out and works. I have so often seen her about 5 o'clock leaving the nursery looking tired after her day's work carrying one child and leading another by the hand. She has really another day's work to do before she can get her rest, getting her evening meal for herself and children—doing her own housework, and getting ready to repeat the same grind next day. I am glad we have a provision at last doing away with that sort of thing. It is a fine piece of humanitarian legislation which was long overdue. I have read with a great deal of pleasure that the same sort of thing is being done or proposed in a great number of the States.

My friend from Salt Lake City made a rather startling statement when he said there was allowed $450 legal costs out of a settlement amounting to $750.

Mr. MONSON. I am afraid I did not make that clear. The man was paid the $750, and we learned afterwards that, without the commission's consent or knowledge, he had paid the attorney $450.

Mr. KINGSTON. Well, I would say the man would be properly advised if he brought action to recover money for which no value was given. I did not mean to suggest the commission was responsible for that payment at all. I quite understood the commissioner in what he said, but I say it is nothing short of scandalous that any such sum should be allowed to any attorney under any workmen's compensation law. In Ontario attorneys are practically excluded from practice under the workmen's compensation law, and since the law came into effect six years ago there has been nothing of any substance paid to attorneys for services in this connection. Attorneys rarely appear before the board. We do not have hearings; there is no appeal from our decision; so there is practically nothing for a lawyer to do. At first a few lawyers demurred somewhat against the practice, but the large percentage of the best type of lawyers in the Province at the present time say it is the proper thing. They say, "We don't want to be bothered with that type of case. We don't want to accept a fee which seems like taking bread from the mouth of the widow or the injured man who needs it so much." I just want to say one word in answer to our friend from Idaho, Mr. Fisher. He asked what sort of proof we accepted in death cases.

Mr. FISHER. Dependency cases.

Mr. KINGSTON. I realize in a State as large as Idaho or California or a Province as large as Ontario or any of these large jurisdictions, it is absolutely impossible to think of getting what we call oral testimony before the board in all such cases, and we have adopted the practice of accepting somewhat the same type of proof that an insurance company accepts in proof of a claim under a policy. We have a form specially prepared, in which we seek to anticipate every possible question which can arise, and we, of course, require answers to those questions in the form of a sworn declaration. Upon its receipt, if it leaves any particular point in doubt, correspondence ensues and we clear up the matter in this way. Often we accept a letter from a man as satisfactory proof of the statements that are made. We do not insist on formality at all in the presentation of proof before the board, but try to make the practice as informal as possible, and supplementary statements in the form of a letter are quite acceptable.

Mr. FISHER. Can you rely on that in foreign dependency?

Mr. KINGSTON. Oh, no. If it is a foreign case—and when I speak of foreign, I am speaking rather of that type of foreign case which comes from southern European countries—we require very much better proof. As to these at best it is almost impossible to get satisfactory proof. As to cases where the dependents reside in one of the border States or border Provinces we of course insist on fully sworn statements with regard to all of the matters involved.

Mr. MACKEY. I do not know why the question of proof should worry our friend from Ontario at all, if he has exclusive jurisdiction and there is no appeal from his judgment. All he has to do is to be satisfied in his own mind, and nobody can deny it at all.

Mr. KINGSTON. That's absolutely all we have to do.

Mr. MACKEY. We are a little bothered in this country with constitutions; we can not do that sort of thing in this country, and if any State is doing it at the present time, let the United States Supreme Court get at it and it won't do it any more.

Mr. KINGSTON. Better join up with Canada.

Mr. MACKEY. In Pennsylvania, our first act provided that our decision should be final. That is true yet, but our supreme court decided that under our first act notes of testimony taken before a referee in the first instance or before the board, and hearings de novo, where the board took jurisdiction, were no part of the record, and therefore there was nothing for an appellate court to do but to gather whatever facts it could from the record as returned, and pass upon the law.

Now, if you will refer to a recent decision of the United States Supreme Court, Hammond *v.* Redding Coal & Iron Co., you will find a case where the interstate commerce question was involved. The case involved whether or not cars of coal that left the mouth of the mine with some private marks of the railroad company upon them, indicating that those cars with the little private marks would eventually be assembled in some yard, and after that, on some future day, would be sent out of the State, were engaged in interstate commerce. We granted a hearing de novo, and I wrote the opinion, holding not only as a matter of law but as a fact that the interstate trip of those cars did not begin until they were reassembled at the yard to which they were destined, and rebilled for their journey out of the State, and that this card was only for the employees, indicating some method of their own. The court of Schuylkill County, as did the Supreme Court of Pennsylvania, held that our findings of fact were conclusive, and our supreme court also expunged the notes of testimony before the referee, which the appellant had put in there without the authority of the act. That case was taken to the Supreme Court of the United States, and the Supreme Court of the United States did not look with such horror upon looking at the testimony, even though it were not a part of the record, because it went on and found as facts the facts that were only in the notes of testimony, and found as a fact that under those facts the interstate shipment began at the mouth of the mine, although the man who was killed never in all his labor experience passed outside of the State of Pennsylvania.

Now, we have constitutions in this country, and those constitutions guarantee every litigant a day in court, and when you take away that day in court from compensation litigants you are taking away some property that belongs to them, which the Supreme Court of the United States will not allow you to do. When the question comes before it in that shape, the Supreme Court will so say. Now, therefore, we must afford an opportunity to litigants to take us into the appellate courts on some pretext, and under these acts where the findings of the board are final they can take us there only on error of law, and that error of law will consist of finding a fact where there is no evidence whatsoever to sustain it. Just as soon as the court looks at the notes of the testimony and finds a scintilla of evidence which it believes will sustain the finding of fact, it is accepted as true. But if there is no evidence at all to sustain the finding of fact, that is an error of law which will take the case to the appellate courts, and that makes the attorney necessary. That is the very point I am getting at—how to handle this attorney proposition. In this country we have to handle the attorney situation, and I want to say that some of the very best law that has been developed in this country on compensation has been developed in the courts and in the courts of appeal,

where the contentions of attorneys for the claimants have been sustained. In our State we owe much of the popularity of our compensation law to the utterances of our supreme court. Our supreme court has stood behind the compensation act, has given it a liberal interpretation, so that while the board itself in the first instance would not have been sustained by public sentiment in so doing, the supreme court has made public sentiment therefor.

One of the gentlemen complained of the meagerness of the definition of an accident. That is our situation, but when you come to apply the interpretation of the supreme court as to an accident being an untoward or unexpected event, with violence to the physical structure of the body, and when you take the supreme court utterances on that question, I do not know where the line of physical injury stops and occupational disease begins, because if you adopt the germ theory of most of our physicians, then every disease contracted is caused by physical contact with germ disease in the body. In anthrax cases the supreme court has held that there is sufficient injury to sustain an award of industrial accident, because, if you remember, in the ivy poisoning cases in New York the court used the illustration of a man in the course of his employment, loading hay, for instance, being struck by the fang of a poisonous reptile. As anthrax is a germ disease and its germ is such an entity that it can be described, that it can be seen, that the pathological result immediately follows the contact between the germ and the human body, what is the difference between the fang of the reptile and the contact of the germ with the human body? Upon that reasoning our supreme court sustained the anthrax case.

Up in Massachusetts they boast they have an act which covers industrial diseases. It was an accident that they have such a law, as they never intended to write such a law. In the phrase "personal injury by accident" they left out the words "by accident." They intended to put in the usual words, but they left out the words "by accident," and the supreme court says, "Why, you have occupational disease covered." California has such a law by design, but every time I hear a Massachusetts representative boasting of her occupational disease compensation law I feel like reminding him that she only has it by accident.

Now, what are we going to do with the lawyers? You can't keep them out. The employers, the insurance companies, the self-insurers, will employ the best attorneys, and the very best attorneys in all parts of Pennsylvania practice before our referees and before the board, because the corporation money protects the man. Now, if you make it absolutely impossible for the claimants to offer such rewards to attorneys that they can not get legal talent to combat the legal talent on the other side, then you are going to affect very seriously the claimants' rights. And if your boards take up the side of the workmen and prepare the workmen's cases and let the workman present the case through his own lips that you prepared for him, and you decide your cases, you are soon going to cripple your own usefulness through lack of confidence by the community. Therefore you must accord the claimant some intelligent representation.

In Pennsylvania we have tried to solve that by letting the State give us an appropriation for attorneys' fees for just that purpose, and I believe that Dr. Connelley asked and received last year $12,000.

Of course, that's just a beginning. Therefore, in Philadelphia and Pittsburgh and Scranton, the center of the hard-coal industry, we have attorneys. We also have our complaint clerks in headquarters. The first man an injured workman or the widow of a decedent meets on entering our office door is the man to whom he or she can make complaint; he presents the case and it is immediately turned over to an attorney who specializes in this law, and that attorney represents these claimants without any charge whatsoever. That is the way we have found the best in the great industrial State of Pennsylvania with the great volume of business we have to handle. The claimants can go out and get plenty of counsel themselves, and when they indulge in the luxury of an attorney and settle with an attorney without the knowledge of the board, we have no jurisdiction to interfere, because an agreement is an agreement, whether between an attorney and a client or between a merchant and somebody else. But when the attorney wants his attorney fee to become a lien against the fund, then he presents a petition to us, showing how much work he has done, and we then fix the amount, graduated according to the work done and the amount of money received. I know of no instance where we have gone over 15 per cent, where the claim has gone the full length of legal procedure, clear to the supreme court, but the average will be 5 per cent of the amount recovered.

The CHAIRMAN. The hour of 4 o'clock has arrived, and, in obedience to instructions, I will turn the meeting over to the president of the convention to take up the regular order.

I would like to say one word before retiring about the courts. Our courts feel that they have been models of liberality in determining the issues in our cases. They have done the best they could with the education that they have had. They have hit us pretty hard sometimes; they have set outside of our act many hundreds of wood choppers and tie makers, and others who do the hardest kind of work, as independent contractors. We have won about two-thirds of the cases that have been appealed and have lost about one-third. Probably that's a good batting average. But there is this thing I shall always love the Supreme Court of California for, and that is for not doing the things to us that they could have done if they had been so minded. Mr. French will take the chair.

BUSINESS MEETING.

CHAIRMAN, WILL J. FRENCH, PRESIDENT, I. A. I. A. B. C.

The CHAIRMAN. There is some important business to transact, and delegates who are leaving the hall are requested to remain. It was suggested that the committee on resolutions make its report this afternoon. One or two of the delegates will be obliged to leave before this evening, and another reason for having the report presented lies in the fact that there might be some discussion upon some of the questions to be considered, and we could better hold that discussion now than at a dinner.

Before we take up the report of the committee on resolutions, I want to present to you just for a few minutes the gentleman who succeeded Dr. Royal Meeker. The International Association will always be deeply indebted to Royal Meeker for the splendid service he gave

us during his years of association with us as secretary-treasurer. If we had not had this help in keeping the wheels moving at the beginning, I do not believe we could have got as far as we have at this time. Especially is that so as regards the business of the papers and the other documents that are turned out by the Government Printing Office because of the association of the Commissioner of the United States Bureau of Labor Statistics with us. If we had had to do our own printing all these years, I am afraid Mr. Verrill would not be wondering what he could do with the money he now has in his possession. Consequently, it was of more than ordinary moment to us to know who would succeed Dr. Meeker, and when word came that Ethelbert Stewart would be the new Commissioner of Labor Statistics, it was recognized that his long association with that department and his interest in our work meant that we would have a continuance of the help the Government can give this association.

Mr. Stewart desires to speak on the question of statistics, one of the most important questions we have before us, and I shall without further remark call upon Mr. Stewart to come forward and address the convention on this subject.

Mr. ETHELBERT STEWART, Commissioner of United States Bureau of Labor Statistics. As I have indicated to a number of you personally, I desire and intend that the Bureau of Labor Statistics shall go ahead with its work of investigation and report, and it will continue its interest in the work of the compensation commissions.

A good deal has been said to you at this session about statistics. In order to have statistics, we must have reports upon facts, and these reports must be made in such a way that we can compare one State with another and with all States together. You can not compile statistics unless you have reports of similar occurrences made somewhat at least in the same general way. As a matter of fact, you gentlemen from time to time have resolved to report your accidents, for instance, on uniform blanks. You have resolved to keep records of your affairs in a certain uniform standard way. Then after you have resolved, the next year you resolute. But you don't do it, and it places the Bureau of Labor Statistics in this position: We send an agent to the various States to get statistics along a certain line, and we find the bureau is in a state of temporary total disability to get any information from them. What I am interested in particularly is whether that is to become a state of permanent total disability. You put the Bureau of Labor Statistics in the class of the totally disabled, and then you make it pay its own compensation, because we have to pay the agent who goes around and tries to get the facts you haven't got. You gentlemen want these statistics—every one of you has admitted on the floor of this convention that you do want them, and couldn't do such and such a thing, because you didn't know the facts; you do not know your own facts; you do not know the other fellow's facts; so you couldn't compare. If you need those statistics, you will have to keep the records, and if you will keep them, we will gather the facts and put them in statistical form in such a way as to throw light upon your problems; but we don't want to pay for excessive back strain in doing that work. Nevertheless, as I said before, the bureau expects to and will continue, and possibly along some lines will increase, its activities in the direction of collecting and classifying

and presenting facts of value and interest to you and to the bureau, but in all fairness to yourselves and to us, let me plead with you to keep some kind of records.

The CHAIRMAN. The chair will now call for the report of the committee on resolutions. Chairman Marshall, of the Oregon commission.

Mr. MARSHALL. The resolutions will be placed before you in the order in which they were filed with the committee.

REPORT OF THE COMMITTEE ON RESOLUTIONS.

(1) *Resolved*, That this association indorses the program of vocational rehabilitation proposed by the Federal industrial rehabilitation act and recommends that the various State commissions take such action as will help to secure for their jurisdictions the aid available under this act. [Adopted.]

(2) *Resolved*, That the I. A. I. A. B. C. indorses the general plan of organization and purposes of the American Engineering Standards Committee and of the National Safety Codes Committee as they apply to the problem of standardization of safety codes, and that it urges its members to utilize every opportunity to forward such work. [Adopted.]

(3) Whereas Dr. Royal Meeker, for many years Commissioner of Labor Statistics of the Department of Labor and secretary of this association, has entered a field of activity world-wide in scope, and consequently found it necessary to sever his relations as an officer of this organization: Therefore be it

Resolved, That we desire to record our appreciation of the important constructive work of Dr. Meeker in assisting in the enactment of workmen's compensation laws and in rendering invaluable assistance to those charged with their administration; be it further

Resolved, That the secretary be instructed to forward to Dr. Meeker a copy of these resolutions and also express to him the hope of our members that he may realize the greatest degree of success in his new work. [Adopted.]

(4) Whereas during the past year occurred the passing of one of our esteemed members, W. C. Jackson, chairman of the Oklahoma Industrial Commission: Therefore be it

Resolved, That this association hereby expresses its appreciation of the work and personal worth of Mr. Jackson, and feels a sense of loss in the realization that we are not to have the benefit of his experience and counsel in the work of this organization; be it further

Resolved, That a copy of these resolutions be forwarded to the family of Mr. Jackson. [Adopted.]

(5) *Resolved*, That the thanks of the association be extended to the members of the California Industrial Accident Commission, their associates, the physicians, and other citizens and the press of San Francisco for the splendid manner in which they contributed to the success of this convention. [Adopted.]

(6) *Be it resolved by the International Association of Industrial Accident Boards and Commissions, assembled in its seventh annual meeting at San Francisco, Calif., September 20–24, 1920*, That it does hereby urge upon the Congress of the United States the prompt enactment of a uniform Federal workmen's compensation act applicable to all maritime employments and employees. The present state of the maritime law is hopelessly inadequate and archaic with respect to protection of maritime workers against industrial injury. Such workers should receive the same protection as is given employees in land employments in more than 42 States of the United States at the present time, both as a matter of justice to maritime workers and to encourage native-born Americans to enter our merchant marine: Be it further

Resolved, That the president of the International Association of Industrial Accident Boards and Commissions be, and he is hereby, authorized to appoint a committee to confer with the American Association for Labor Legislation and other bodies or organizations interested for the fuller presentation of this matter to the Congress of the United States. [Adopted.]

(7) *Be it resolved by the International Association of Industrial Accident Boards and Commissions, assembled in its seventh annual meeting at San Francisco, Calif., September 20–24, 1920*, That it does hereby urge upon the Congress

of the United States the prompt enactment of a uniform Federal workmen's compensation act applicable to all railroad employees engaged in interstate commerce, either in conjunction with a uniform compensation act for maritime workers or by separate enactment. Such emplyoees should receive the same protection as is given other employees in other employments in more than 42 States of the United States at the present time: Be it further

Resolved, That this association urge upon the Congress the provisions in said law for a standard of benefits at least equal to those contained in the State workmen's compensation acts of highest standard; provisions for vocational re-education and rehabilitation of workmen permanently crippled in railroad employments in interstate commerce of the United States; and provisions for the vesting of concurrent jurisdiction to try cases arising under said law in the Federal courts and in the industrial accident boards and commissions of the various States, to the end that the expeditious and inexpensive machinery for the trial of contested cases now in use by the various States may be available for the settlement of such controversies, and to the end, further, that an injured employee asserting his right in the wrong forum may not be harassed by the necessity of having to bring suit over again before a different tribunal. [Referred to the committee on jurisdictional conflicts.]

(8) Whereas the annual death toll taken by industry is nothing short of appalling, and needlessly so; and

Whereas every industrious workman is an economic asset of great worth to the Commonwealth, capable of being expressed in terms of economic value; and

Whereas sound public policy requires the preservation and conservation of the lives and limbs of all workmen; and

Whereas the compensation laws of the States and Provinces coming within the jurisdiction of the International Association of Industrial Accident Boards and Commissions make but an inadequate provision for industrial safety or for the care and industrial education of the dependents of deceased workmen: Now, therefore, it is

Resolved, That this association hereby declares in favor of the application of the principle of assessment on behalf of the Commonwealth and against the industries in which fatalities occur of such a percentage of the capitalized value of every life so sacrificed as may be found requisite for securing the safety from preventable injury of the lives and limbs of all workmen, and for the maintenance and education of the dependents of those whose lives are sacrificed through industrial hazard until they shall have attained an ability to sustain themselves, and for such other and cognate purposes as justice and humanity may demand. [Referred to the incoming executive committee.]

[Commissioner H. C. Myers, of Oklahoma, speaking on the fourth resolution, made the following remarks:]

Through the association of W. C. Jackson with the Oklahoma Industrial Accident Commission I learned to appreciate his great worth. After he came back from the Toronto convention he and I talked frequently of almost everyone that was there. I felt when I came here that I was personally acquainted with the members that attended the Toronto convention. Judge Jackson was a pioneer in constructive work. He was born in Missouri, and when just a youth went to Arkansas, and when 21 years of age he was elected mayor of his native town. He refused nomination for a second term, and then went to Fort Smith, Ark. That was in the pioneer days of Oklahoma. The second judicial district was located at Fort Smith, and the criminals who had infested Oklahoma were brought there for trial. Judge Jackson learned then to be a firm, a just, judge. Later on he came to Muskogee, Okla. He was appointed by President Cleveland United States commissioner. It became his duty to try the cases that came before his court, and he

established a reputation for justice and integrity that will last for long years after we have passed away.

Judge Jackson was a man 65 years of age. For a number of years his health had been bad, but during that time he had established the Oklahoma workmen's compensation law by the work that he had done, so that to-day we feel that it is second to none. The opinions that he has written are generally used by other States. He was reversed but once by the supreme court of our State.

I take this as the place to pay my humble tribute to my associate and to my friend.

[The following discussion was had on resolution (8):]

Mr. MACKEY. What does all that mean?

Mr. A. J. PILLSBURY. I tried to tell the people this morning what that meant. The idea is this: We are looking for a source of money to make employment safe and to take care of the dependents of those who are killed. My contention is that the issue is between society at large and its industries, and that every time a man is killed in an industry the capitalized value of that life—that is, a sum which put at interest with principal and interest would exactly equal the capacity of earning of that life—is a debt which the industry owes to organized society or to the State, and the State has a right to call upon industry through the employer, through insurance premiums, for so much of that debt as is necessary to make employment safe, and to take care of those who are left dependent by reason of the deaths of these thousands of men in the employment of the country.

What is the idea that compensation is based upon? That each industry must take care of its own killed and wounded. That is one purpose. The other is to take care of the beneficiaries of those who are killed. We can ask for 25 per cent of the capitalized value of the life, or 30 per cent of it as Belgium does—whatever is needed in each Commonwealth; but there is the obligation. When a man is killed there is just as surely a loss to the Commonwealth as though a building is blown up of equal value. We can not go to the legislature for appropriations out of the common fund, because every State is burdened with demands for money, and the legislature can not meet it by taxation. There is no reason why it should in this case, because the industry takes the life and the industry should bear the expense, and it can do it, and it is no injustice to ask it to do it.

I tried to state in that resolution that phase of it, that we call upon the industries for as much money as is needed for those purposes. That is all there is to it.

Mr. ANDRUS. I was very much interested in Mr. Pillsbury's discussion this morning. I think we all agree that the compensation allowed in death cases is inadequate, and we are trying to increase it as rapidly as we can. Now, as I understand this proposition, it proposes that a certain amount be drawn for a safety fund. We can only raise the death benefit slowly. As I understand it, if we can get a raise in death benefit, we give the money to the State instead of to the widow. I am opposed to that, and I am opposed to this association proposing legislation for the States. It is a new subject, just presented this morning, and we haven't had time for discussion, and I move it be referred to the committee on resolutions to report next year.

[The report of the auditing committee, stating that so far as the data in the hands of the committee were concerned the financial report was correct, was accepted.

An amendment to the constitution increasing the number on the executive committee to 5, in addition to the ex officio members, was added.

The committee on election of officers and place of meeting of the next convention presented its report, which was adopted. The list of officers elected will be found on page 440. Chicago was selected as the place of meeting of the 1921 convention.]

The CHAIRMAN. Are there any further reports to come before this convention? Has any delegate any proposal to make or motion to offer? The hour is now about 5.20, a little over, and this will be the last opportunity to present anything at the San Francisco convention until you meet here next time.

Mr. KINGSTON. There was one matter that I did intend to mention, and I hope it is not too late. We were all very much interested on Monday evening in the educational picture, thrown on the canvas, of our good friend, Mr. Shunk, who has been with us here, and I wonder if we can enlist the services of the California commission in having that reel copied, so that each of our jurisdictions could be provided with a reel, or possibly two or three jurisdictions in the neighborhood might join together in having one. Personally I would like very much to have that reel at home as educational propaganda along the line of rehabilitation. Possibly it is not as complete as it might be made, but I would suggest that it be left to the incoming executive of the association, with Mr. French, of California, to see if something can not be worked out by which we of the various jurisdictions can have the benefit of that reel in our home work. If any other delegates have the same feeling, I would be glad to hear of it.

Mr. CLARK. I have the same feeling and more of it. I think that is the most constructive thing I have seen in this convention. It will be most appealing and helpful to our safety man, more than anything of which I know. I would like to suggest an even broader plan, because of what might develop. I had the pleasure of taking dinner the other day with Mr. Kingston and the young man who is the center of the picture, and to talk with him is to get an inspiration. He made the suggestion in this talk with us that if that picture were to be remade, with the present understanding of its effect and his larger experience and his larger views, it could be very much improved, and that is not a matter of argument. To illustrate, that wonderful work that has been sitting on the table until this afternoon does not appear in that picture. Looking at that mechanical work it is hardly believable that Mr. Shunk could have done it, and it would not be believed by word of mouth. If I should go back home and tell the story it would not be comprehended. If I should try to describe that mechanical work that he has done, to say nothing of his tying a four-in-hand and lacing his shoes—the lacing of the shoes or the tying of the four-in-hand might be believed in, but not that mechanical part at all.

It has seemed to me that this convention could make no better move while we are developing safety in a new way, while it is in its infancy, than to bring about some sort of action so that that picture would be retaken. Let our good friend Mr. Shunk do the things that he does

in the picture, because they are marvelous enough, but let him also do the things he has learned to do since the picture was taken, and let him be seen in his active daily work more than he is in that picture. It seems to me an estimate of the cost of a reproduction of that picture could be worked out, allowing Mr. Shunk a reasonable compensation for his services in working out the picture and managing it, as I do not think we have any right to call on Mr. Shunk to do that for the benefit of some 30 or more States of the Union. It could then be ascertained, if at least half of the States would take the picture, what it would cost each State to have a copy of the film that could be used by its safety department or by those interested in that work in the several jurisdictions. I should like to have that put up to my commission as a concrete proposition, and I should like to know how many other commissions are going to act. If our other commissioners could see that picture, and our workers see it as I have seen it, I think we would own it anyway. It does seem to me if that picture were distributed through all the jurisdictions in such form as it could be put into, it would help the commissions in a marvelous way, waking people up to the work we are trying to do. Let us get that picture in constructive form, and let us work out a scheme to have at least half of us own it, or, better, everyone of us.

Mr. CONNELLEY. In the State of Pennsylvania the legislature last session made it possible to have "safety first" taught in the public schools. It has also made it possible to have visual education established in the State. I was talking to Mr. Shunk about the possibility of doing just what the gentleman from Canada has spoken about. Now, I believe that Pennsylvania would share part of the expense, and I also believe it is possible for the International Association to bear part of the expense, to have Mr. Shunk, in connection with the picture, go on a lecture tour in the United States, showing just what he can do. I believe that is possible, and to follow out what Mr. Clark, from Cincinnati, has said, I feel our commission would have no trouble whatever in buying that film, regardless of its cost. We know what a reel costs, because in Pennsylvania we have two or three such reels, so I know that we can do that. There is a fund we can use, and I believe the United States Steel Corporation would take Mr. Shunk. What we need is to have this body, this organization here, present something to the other organizations whereby it would be possible for this young man—and I think the commission of California should allow him, if possible—to go over the United States and lecture in association with the moving picture. The living man would be there, and the International Association I am positive would want him there to explain just exactly what it means.

Mr. MONSON. Following close on what Mr. Connelley has said, we had a young man in Utah who had his eyes blown out and his hands blown off. He was earning about $115 a month in one of the mines. The doctor who performed the operation on him says he is now earning $500 or $600 a month on the lecture platform, preaching optimism. Stanley Hanks will be a good friend for our friend Shunk, and if we could visualize their splendid efforts it would get people away from their discouraged condition by seeing what someone else has done.

Mr. MARSHALL. Mr. Connelley spoke of the education in the schools. We are much encouraged in Oregon over a recent develop-

ment coming through the cooperation of the local branch of the National Safety Council, the labor department of the State, and our board through conferences with the superintendent of instruction, with the result that a committee is now preparing material for the study of civics in the various grades, with the promise on the part of the State superintendent of schools that he will publish the material and see that it becomes a part of the course of study in the entire State. We feel very much gratified over the accomplishment and the hearty cooperation that was secured, and if that material when prepared will be of any value, I hope we will be called upon for it.

Mr. KINGSTON. I would like to present the matter of the picture in concrete form. I move that the executive committee be authorized to appropriate a sum which in their judgment is proper and reasonable out of the funds of the association to bear the initial cost of the picture. There is an initial cost, and then there will be a cost per copy afterwards. I think the association might reasonably and fairly bear the initial cost. The cost per copy is something that each jurisdiction may bear if it wants to, but my suggestion is in the form of a motion that the association bear the initial cost of the picture.

Mr. ANDRUS. Would it not be wise to put a proviso in there—"if in their judgment they consider it advisable"? I do not feel it would be right to instruct the executive committee at this time to get the picture, without any idea as to how much it will cost.

Mr. KINGSTON. I am willing to leave it that way—"if it is good in their judgment." [Seconded.]

The CHAIRMAN. It is moved and seconded that in the matter of procuring a picture such as that shown last Monday night it be left to the incoming executive committee to decide whether or not the International Association shall order such picture and appropriate money for the cost thereof, such reference to the executive committee to include the matter of producing a second part to the picture, showing Mr. Shunk with the woodworking exhibits, as shown at this International Association meeting. [Motion carried.]

The CHAIRMAN. Is there any further business to come before this convention?

Mr. LEE. I hate to impose upon your good nature, but I think it is due the California commission that some record be made so that we can say to our membership and to the public that the entertainment and care and provision which we have experienced in this city have been second to none of any city we have ever been in, and hardly equaled and surely not surpassed, nor ever will be by any city we shall hereafter be in. We not only include in that the membership of the commission, but we also include the wife of the chairman, Mrs. French, who has been constantly on guard and by every charm of the feminine sex has done so much to add to our enjoyment, pleasure, and comfort. I just want briefly to say personally that, having considerable experience in attending conventions in this city before and all over the United States and in the principal cities of Canada, I do not know of any place under the sun that could do more to make people go away from a place with a

warm feeling in their hearts for the place they shall leave behind them. Such has always been my experience when I came to California, and this surpasses anything I have ever yet had.

Let us not fail to emphasize that when we leave our brothers and sisters of the Pacific slope we go back carrying the fondest recollections of our lifetime, for the magnificent entertainment and delightful intercourse and splendid example of civic virtue here exhibited, equal to any that we will ever have the pleasure hereafter to encounter.

Mr. KINGSTON. There are a couple of items of business yet that ought to be attended to. A year ago, you will remember, we authorized the executive committee to appropriate for the secretarial work the sum of $300. I do not know whether that $300 was expended, but I do not suppose that makes any difference now. Dr. Meeker has gone to Geneva and I suppose has a big salary, and as long as the help in his office was taken care of, we do not need to worry. I want to move that the incoming executive committee be authorized to appropriate the sum of $300 for the secretarial work. [Seconded.]

The CHAIRMAN. It is moved and seconded that the incoming executive committee be authorized to appropriate the sum of $300 for the secretary-treasurer.

Mr. KINGSTON. I did not intend it for him personally, but to enable him to have sufficient help in his office.

The CHAIRMAN. The motion is not clear—for the secretary-treasurer's office—is that it?

Mr. KINGSTON. I want to renew the motion made a year ago in Toronto, which was acceptable to Dr. Meeker.

Mr. VERRILL. The treasurer's account, Dr. Meeker's account here, shows that on October 20, 1919, an honorarium of $300 was paid to Royal Meeker. There is no record of any other payment at all. There are records, of course, of small payments for stenographic and clerical service.

Mr. KINGSTON. The motion made in Toronto was that the sum of $300 be paid to Dr. Meeker for his past services, and that, I presume, is the $300 to which you refer. There was at the same time a motion that the sum of $300 be appropriated for the work of the office. [Reading:] "It is moved that the executive committee be authorized to present the sum of $300 to Dr. Meeker for past services, and to cover expenses of his office for next year an honorarium of $300."

Mr. VERRILL. One payment was all that was ever made. No such payment as the second one was ever made.

Mr. KINGSTON. Are you in a position to know whether the help in Dr. Meeker's office was properly taken care of?

Mr. VERRILL. The payments appear in this account submitted by the treasurer. The payments are of small amounts, and in the aggregate, speaking at random, I should say might be $25 or $30. Much of the work was done incidental to the work of the bureau, and only what needed to be done as overtime or extra work was paid for.

Mr. KINGSTON. The feeling we had in Toronto was that there is an enormous amount of work done in the secretary's office for which we have not paid. There must have been. I do not think we ought to be quite satisfied to let it go, so long as it is done in the day's work.

We have no right to impose extra work, even in the working hours of the day, on the clerks in the secretary's office. If they have moments of leisure, we have no right to impose that extra work on them, and I would like to come up to this association and feel that we are not under a financial obligation, that we have discharged our obligations in that regard, and I hope the secretary will see that the help in his office are properly taken care of.

Mr. CLARK. Was your motion seconded?

Mr. KINGSTON. Yes.

Mr. CLARK. I move to amend the motion of Mr. Kingston by adding that the matter of compensation as passed at the Toronto convention be referred to the executive committee for adjustment.

Mr. KINGSTON. I am prepared to accept that.

[Motion carried.]

Mr. KINGSTON. One other item. For some years the executive committee has been meeting, on an average, I think, three times in the interim between sessions. That entails a considerable amount of expense on the part of the individual members of the committee, or the jurisdictions from which they come. I scarcely think it is right that the individual members of the executive committee, or their jurisdictions, should be at that expense. I know it is difficult in some of your jurisdictions to get an appropriation for that particular purpose, and I am prepared to move, and do it now more readily because I am off the executive committee, that the reasonable expenses of the members of the executive committee involved in attending the meetings of the executive committee be paid out of the funds of the association. I think the time has come when the association ought to take that stand.

[Motion seconded and carried.]

The CHAIRMAN. Is there any further business to come before this convention? The chair would like to say a word in response to Mr. Lee's very kind expressions concerning California. That matter will be discussed at more length to-night, but in case some who are present will not be with us to-night because of having to leave the city, I can say for the commission and for its staff, that we have enjoyed immensely your presence, that we feel we have benefited—we hope both of us, as it were, the delegates and visitors on the one hand, and the commissioners on the other, have—and if you carry away, as I believe you will, the belief that we have done the best that we could, and that we are hopeful that you will return, then, indeed, has our work and any effort that we have given to your entertainment or to the conduct of this business succeeded. Is there any further business to come before this convention? If not, it will stand adjourned until the meeting in Chicago next year, at the time set by the incoming committee.

[Convention adjourned.]

APPENDIXES.

APPENDIX A.—OFFICERS AND MEMBERS OF COMMITTEES FOR 1920-21.

President, Charles S. Andrus, chairman, Industrial Commission, Chicago, Ill.
Vice president, Robert E. Lee, chairman, State Industrial Accident Commission, Baltimore, Md.
Secretary-treasurer, Ethelbert Stewart, United States Commissioner of Labor Statistics, Washington, D. C.

Executive Committee.

President, Charles S. Andrus, Industrial Commission, Chicago, Ill.
Vice president, Robert E. Lee, State Industrial Accident Commission, Baltimore, Md.
Secretary-treasurer, Ethelbert Stewart, United States Bureau of Labor Statistics, Washington, D. C.
Fred. W. Armstrong, Workmen's Compensation Board, Halifax, Nova Scotia.
Will J. French, Industrial Accident Commission, San Francisco, Calif.
John P. Gardiner, Department of Labor and Industries, St. Paul, Minn.
William W. Kennard, Industrial Accident Board, Boston, Mass.
W. A. Marshall, State Industrial Accident Commission, Salem, Oreg.
Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.

Committee on Statistics and Compensation Insurance Cost.

Chairman, E. H. Downey, Insurance Department, Department of Labor and Industry, Harrisburg, Pa.
Vice chairman, L. W. Hatch, State Insurance Fund, Industrial Commission, New York, N. Y.
Secretary, Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.
A. J. Altmeyer, Industrial Commission, Madison, Wis.
T. N. Dean, Workmen's Compensation Board, Toronto, Ontario.
R. J. Hoage, United States Employees' Compensation Commission, Washington, D. C.
Carl Hookstadt, United States Bureau of Labor Statistics, Washington, D. C.
William A. Marshall, State Industrial Accident Commission, Salem, Oreg.
R. M. Pennock, State Insurance Fund, Industrial Commission, New York, N. Y.
W. P. Ratliff, Industrial Accident Commission, San Francisco, Calif.
Ethelbert Stewart, United States Bureau of Labor Statistics, Washington, D. C.
Oscar M. Sullivan, Department of Labor and Industries, St. Paul, Minn.
E. E. Watson, Industrial Commission, Columbus, Ohio.

Medical Committee.

Chairman, Francis D. Donoghue, M. D., Industrial Accident Board, Boston, Mass.
Vice chairman, Morton R. Gibbons, M. D., Industrial Accident Commission, San Francisco, Calif.
G. H. B. Hall, M. D., Workmen's Compensation Board, Vancouver, British Columbia.
Raphael Lewy, M. D., Bureau of Workmen's Compensation, New York, N. Y.
P. B. Magnuson, M. D., Industrial Commission, Chicago, Ill.
M. D. Morrison, M. D., Workmen's Compensation Board, Halifax, Nova Scotia.
J. W. Mowell, M. D., State Medical Aid Board, Olympia, Wash.

F. H. Thompson, M. D., State Industrial Accident Commission, Salem, Oreg.
J. W. Trask, M. D., United States Employees' Compensation Commission, Washington, D. C.

Safety Committee.

Chairman, James L. Gernon, Bureau of Inspection, Industrial Commission, New York, N. Y.
Vice chairman, John Roach, Bureau of Hygiene and Sanitation, Trenton, N. J.
L. W. Chaney, United States Bureau of Labor Statistics, Washington, D. C.
Thomas P. Kearns, Division of Workshops and Factories, Industrial Commission, Columbus, Ohio.
R. McA. Keown, Safety and Sanitation Department, Industrial Commission, Madison, Wis.
John H. Walker, Bureau of Inspection, Department of Labor and Industry, Harrisburg, Pa.
H. M. Wolflin, Industrial Accident Commission, San Francisco, Calif.

Committee on Jurisdictional Conflicts.

Chairman, Ethelbert Stewart, United States Bureau of Labor Statistics, Washington, D. C.
Vice chairman, Fred M. Wilcox, Industrial Commission, Madison, Wis.
T. J. Duffy, Industrial Commission, Columbus, Ohio.
William W. Kennard, Industrial Accident Board, Boston, Mass.
Robert E. Lee, State Industrial Accident Commission, Baltimore, Md.
James M. Lynch, Industrial Commission, New York, N. Y.
W. A. Marshall, State Industrial Accident Commission, Salem, Oreg.
A. J. Pillsbury, Industrial Accident Commission, San Francisco, Calif.
Charles H. Verrill, United States Employees' Compensation Commission, Washington, D. C.

APPENDIX B.—CONSTITUTION OF THE INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS.

ARTICLE I.

This organization shall be known as the International Association of Industrial Accident Boards and Commissions.

ARTICLE II.—*Objects.*

SECTION 1. This association shall hold meetings once a year, or oftener, for the purpose of bringing together the officials charged with the duty of administering the workmen's compensation laws of the United States and Canada to consider, and, so far as possible, to agree on standardizing (*a*) ways of cutting down accidents; (*b*) medical, surgical, and hospital treatment for injured workers; (*c*) means for the reeducation of injured workmen and their restoration to industry; (*d*) methods of computing industrial accident and sickness insurance costs; (*e*) practices in administering compensation laws; (*f*) extensions and improvements in workmen's compensation legislation; and (*g*) reports and tabulations of industrial accidents and illnesses.

SEC. 2. The members of this association shall promptly inform the United States Bureau of Labor Statistics and the Department of Labor of Canada of any amendments to their compensation laws, changes in membership of their administrative bodies, and all matters having to do with industrial safety, industrial disabilities, and compensation, so that these changes and occurrences may be noted in the Monthly Labor Review of the United States Bureau of Labor Statistics and the Canadian Labor Gazette.

ARTICLE III.—*Membership.*

SECTION 1. Membership shall be of two grades—active and associate.

SEC. 2. *Active membership.*—Each State of the United States and each Province of Canada having a workmen's compensation law, the United States Employees' Compensation Commission, the United States Bureau of Labor Statistics, and the Department of Labor of Canada shall be entitled to active membership in this association. Only active members shall be entitled to vote through their duly accredited delegates in attendance on meetings.

SEC. 3. *Associate membership.*—Any organization or individual actively interested in any phase of workmen's compensation or social insurance may be admitted to associate membership in this association by vote of the executive committee. Associate members shall be entitled to attend all meetings and participate in discussions, but shall have no vote either on resolutions or for the election of officers in the association.

ARTICLE IV.—*Representation.*

SECTION 1. Each active member of this association shall have one vote.

SEC. 2. Each active member may send as many delegates to the annual meeting as it may think fit.

SEC. 3. Any person in attendance at conferences of this association shall be entitled to the privileges of the floor, subject to such rules as may be adopted by the association.

ARTICLE V.—*Annual dues.*

SECTION 1. Each active member shall pay annual dues of $50, except the United States Employees' Compensation Commission, the United States Bureau of Labor Statistics, and the Department of Labor of Canada, which shall be exempt from the payment of annual dues: *Provided*, That the executive committee may, in its discretion, reduce the dues for active membership for those jurisdictions in which no appropriations are made available for such expendi-

tures, making it necessary that the officials administering the law pay the annual dues out of their own pockets for the State.

SEC. 2. Associate members shall pay $10 per annum.

SEC. 3. Annual dues are payable any time after July 1, which date shall be the beginning of the fiscal year of the association. Dues must be paid before the annual meeting in order to entitle members to representation and the right to vote in the meeting.

ARTICLE VI.—*Meetings of the association.*

SECTION 1. An annual meeting shall be held at a time to be designated by the association or by the executive committee. Special meetings may be called by the executive committee. Notices for special meetings must be sent out at least one month in advance of the date of said meetings.

SEC. 2. At all meetings of the association the majority vote cast by the active members present and voting shall govern, except as provided in Article X.

ARTICLE VII.—*Officers.*

SECTION 1. Only officials having to do with the administration of a workmen's compensation law or bureau of labor may hold an office in this association, except as hereinafter provided.

SEC. 2. The association shall have a president, vice president, and secretary-treasurer.

SEC. 3. The president, vice president, and secretary-treasurer shall be elected at the annual meeting of the association and shall assume office at the last session of the annual meeting.

SEC. 4. If for any reason an officer of this association shall cease to be connected with any agency entitled to active membership before the expiration of his term, he may continue in office notwithstanding until the next annual meeting; but if for any reason a vacancy occurs in the office of president, the executive committee shall appoint his successor.

ARTICLE VIII.—*Executive committee.*

SECTION 1. There shall be an executive committee of the association, which shall consist of the president, vice president, the retiring president, secretary-treasury, and five other members elected by the association at the annual meeting.

SEC. 2. The duties of the executive committee shall be to formulate programs for all annual and other meetings and to make all needed arrangements for such meetings; to pass upon applications for associate membership; to fill all offices which may become vacant; and in general to conduct the affairs of the association during the intervals between meetings. The executive committee may also reconsider the decision of the last annual conference as to the next place of meeting and may change the place of meeting if it is deemed expedient.

ARTICLE IX.—*Quorum.*

SECTION 1. The president or the vice president, the secretary-treasurer or his representative, and one other member of the executive committee shall constitute a quorum of that committee.

ARTICLE X.—*Amendments.*

This constitution or any clause thereof may be repealed or amended at any regularly called meeting of the association. Notice of any such changes must be read in open meeting on the first day of the conference, and all changes of which notice shall have thus been given shall be referred to a special committee, which shall report thereon at the last business meeting of the conference. No change in the constitution shall be made except by a two-thirds vote of the members present and voting.

APPENDIX C.—LIST OF PERSONS WHO ATTENDED THE SEVENTH ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS, HELD AT SAN FRANCISCO, CALIF., SEPTEMBER 20-24, 1920.

CANADA.

British Columbia.

Dr. J. Bain Thom, Trail, British Columbia.

Nova Scotia.

F. W. Armstrong, vice chairman, Workmen's Compensation Board.

Ontario.

George A. Kingston, commissioner, Workmen's Compensation Board.
Miss Margaret Kingston.
T. Norman Dean, statistician, Workmen's Compensation Board.
Mrs. T. Norman Dean.

UNITED STATES.

California.

Will J. French, chairman, Industrial Accident Commission.
A. J. Pillsbury, commissioner, Industrial Accident Commission.
A. H. Naftzger, commissioner, Industrial Accident Commission.
F. B. Lord, manager, compensation department, Industrial Accident Commission.
Dr. M. R. Gibbons, medical director, Industrial Accident Commission.
Dr. R. W. Harbaugh, assistant medical director, Industrial Accident Commission.
Dr. F. E. Raynes, assistant medical director, permanent disability rating department, Industrial Accident Commission.
H. M. Wolflin, superintendent of safety, Industrial Accident Commission.
A. E. Graupner, attorney, Industrial Accident Commission.
W. P. Ratcliff, manager, departments of self-insurance and statistics, Industrial Accident Commission.
Warren H. Pillsbury, compensation expert, Industrial Accident Commission.
H. L. White, secretary, Industrial Accident Commission.
J. S. Thomas, assistant secretary, Industrial Accident Commission.
R. E. Haggard, acting superintendent, permanent disability rating department, Industrial Accident Commission.
Mrs. S. A. McLaughlin, manager, acceptance department, Industrial Accident Commission.
Elmer M. Shunk, special investigator, rehabilitation department, Industrial Accident Commission.
Miss Mildred Adams, special agent, dependency claims, Industrial Accident Commission.
C. W. Fellows, manager, State Compensation Insurance Fund.
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Miss Beatrice Mark, assistant superintendent, claim department, State Compensation Insurance Fund.
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J. D. Keith, California & Hawaiian Sugar Refining Co., San Francisco.
John P. Coghlan, claims attorney, Pacific Gas & Electric Co., San Francisco.
John R. Brownell, manager of group department, Equitable Life Assurance Society of the United States, San Francisco.
R. P. Wisecarver, attorney, Employers' Liability Assurance Corp.
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H. L. Phillips, attorney, Globe Indemnity Co., San Francisco.
Dr. Jessica Peixotto, department of economics, University of California, Berkeley, Calif.
Henry H. Bower, attorney, Fidelity & Casualty Co., of New York, San Francisco.
V. Cole, adjuster, Employers' Liability Assurance Corp., San Francisco.
Dr. G. G. Moseley, medical referee, Aetna Life Insurance Co.
Dr. Gilbert M. Barrett, chief surgeon, Bethlehem Shipbuilding Corp. (Ltd.), San Francisco.
Dr. George W. Goodale, San Francisco.
Dr. Edward F. Glaser, San Francisco.
Dr. M. E. Rumwell, San Francisco.
Dr. Hans Barkan, San Francisco.
Dr. Thomas J. Nolan, San Francisco.
Dr. William H. Malone, San Francisco.
Dr. W. H. Winterberg, San Francisco.
Dr. Emmet Rixford, San Francisco.
Dr. H. W. Gibbons, San Francisco.
Dr. William F. Blake, San Francisco.
Dr. Carl Hoag, San Francisco.
Dr. T. A. Stoddard, San Francisco.
Mr. F. E. Boerke, director, Department of Physiotherapy, Stanford University Hospital, San Francisco.
Charles L. Jacobs, director, vocational teachers' training, University of California, State board of education.

Connecticut.

Dr. James J. Donohue, commissioner, Board of Compensation Commissioners.
Louis J. Lynch, Norwich.
Dr. George E. Tucker, medical director, accident and liability department, Aetna Life Insurance Co.

Idaho.

George H. Fisher, commissioner, Industrial Accident Board.

Illinois.

Charles S. Andrus, chairman, Industrial Commission.
L. A. Tarrell, attorney, Lumbermen's Mutual Casualty Co.

Iowa.

Ralph Young, deputy commissioner, Workmen's Compensation Service.
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Maryland.

Robert E. Lee, chairman, State Industrial Accident Commission.

Massachusetts.

Chester E. Gleason, commissioner, Industrial Accident Board.
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Dudley M. Holman, former president, I. A. I. A. B. C.
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Minnesota.

John J. Gardiner, commissioner, Department of Labor and Industries.
Oscar M. Sullivan, chief statistician, Department of Labor and Industries.

Nevada.

George D. Smith, chairman, Industrial Commission.
John M. Gray, commissioner, Industrial Commission.
Frank W. Ingram, commissioner, Industrial Commission, and Labor Commissioner.
Dr. Donald Maclean, chief medical adviser, Industrial Commission.

New York.

Albert W. Whitney, general manager, National Workmen's Compensation Service Bureau.
Harry Allen Overstreet, College of City of New York.

Ohio.

J. D. Clark, commissioner, Industrial Commission.

Oklahoma.

H. C. Myers, commissioner, Industrial Commission.

Oregon.

William A. Marshall, chairman, State Industrial Accident Commission.
Dr. F. H. Thompson, chief medical adviser, State Industrial Accident Commission.
Mrs. F. H. Thompson.
Will T. Kirk, commissioner, State Industrial Accident Commission.

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Mrs. Harry A. Mackey.

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Virginia.

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Dr. John W. Mowell, chairman, State Medical Aid Board.
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Wisconsin.

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Mrs. Thomas F. Konop.

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Federal Government.

Ethelbert Stewart, United States Commissioner of Labor Statistics.
Carl Hookstadt, expert, United States Bureau of Labor Statistics.
Charles H. Verrill, commissioner, United States Employees' Compensation Commission.
L. S. Hawkins, chief, Division for Vocational Education, Federal Board for Vocational Education.