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*Report on the International Conference
of Representatives of Labour Statistical Departments,
held at Geneva, 29 October to 2 November 1923*

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INTRODUCTION

The International Labour Office, in carrying out its duties under the Treaties of Peace concerning "the collection and distribution of information on all subjects relating to the international adjustment of conditions of life and labour", has frequently been called upon to collect and compare statistics relating to labour conditions in different countries, but has been hampered in its task by the lack of comparability in the statistics of different countries. It was suggested that if the countries could agree on some standard method of compiling and publishing statistics of labour, international comparisons would be facilitated. Moreover, the International Labour Office had been approached by some of the new countries set up by the Treaties of Peace as to the best methods to be adopted in creating their statistical departments. The Governing Body accordingly approved the convocation of a Conference of Statisticians engaged in the compilation of labour statistics, for the purpose of considering the problems involved in the compilation of such statistics and of agreeing, if possible, upon certain methods and standards with a view to rendering labour statistics more comparable as between different countries. The Conference duly met from 29 October to 2 November, and a report of its proceedings is contained in the following pages.

Letters of convocation were despatched on 10 August to all the Members of the Organisation clearly stating the purpose of the Conference. It was not, of course, intended that the Conference should attempt to lay down a uniform system for the drawing up of labour statistics in the different countries, since statistics in many cases are the by-product of the application of legislative or administrative measures, but that it should endeavour to lay down general principles in the hope that the various official statistical authorities in making changes or developments in their national systems would endeavour, as far as possible, to move in the direction of some agreed international standard.

The Agenda of the Conference was purposely limited to three specific items. It was, of course, realised that it would have been

desirable, in view of the mutual interdependence of the different branches of labour statistics, to cover as large a field as possible, yet it was felt that a first Conference of this kind would be most likely to lead to useful results if its programme were limited to a few carefully chosen subjects. The subjects finally chosen by the Governing Body were the following:

- (a) Classification of Industries and Occupations;
- (b) Statistics of Wages and Hours of Labour;
- (c) Statistics of Industrial Accidents.

These were selected out of a list of six items, which included, in addition to the three given above, statistics of the cost of living, statistics of unemployment, and statistics of strikes and lock-outs.

Reports on each of the three items of the Agenda were prepared by the Statistical Section of the International Labour Office and circulated in advance to the Governments, together with a series of draft resolutions as a basis for discussion. The reports, which deal with the objects of the different kinds of statistics, the methods of compiling them with a view to international comparisons, and the information available in different countries, have been published separately by the Office ⁽¹⁾. The draft resolutions are given in the following pages.

⁽¹⁾ INTERNATIONAL LABOUR OFFICE: *Systems of Classification of Industries and Occupations*, Studies and Reports, Series N (Statistics) No. 1; *Methods of Statistics of Wages and Hours of Labour*, Ibid. No. 2; *Methods of Statistics of Industrial Accidents*, Ibid. No. 3. Geneva, 1923.

REPORT ON THE WORK OF THE CONFERENCE

THE OPENING OF THE CONFERENCE

The Conference was opened on Monday evening, 29 October, by the Director of the International Labour Office. Thirty-three countries were represented, including almost every European State, and countries as far distant as Australia, Brazil, Canada, China, Japan, and India. As some countries sent several representatives the total number of members was 52, of whom one represented the Economic and Financial Section of the League of Nations. A complete list of Members is given in Appendix III.

In welcoming the Delegates the Director indicated how the value of good international statistics was recognised by all who dealt with labour legislation, and how the study by the Office of the different methods of compiling labour statistics had led the Governing Body to convene the present Conference. He pointed out that any resolutions adopted would be expressions of opinion and would be referred to the Governing Body for decision as to the action to be taken thereon. The votes, which would be taken by representative and not by country, would not therefore involve any responsibility for the Governments, and he hoped that the conclusion would be reached entirely from the scientific and international point of view with due regard to practical administrative and political considerations.

Mr. Armand JULIN, General Secretary of the Belgian Ministry of Industry and Labour, was unanimously elected as President of the Conference. The choice was a happy one, for Mr. Julin had not only a large experience of international conferences, but was both a distinguished statistician and an experienced administrator. Three vice-Presidents were elected, viz. Mr. COATS, Domi-

nion Statistician, Canada; Mr. SOLINAS, Director-General of Labour at the Ministry of National Economy, Italy; and Dr. PLATZER, Director at the Federal Statistical Office, Germany.

In his opening address, which is given in Appendix I, Mr. JULIN emphasised the importance of statistics as a basis for social legislation, expounded the various methods of statistical enquiry, and pointed out the difficulties to be met with in attempts at statistical uniformity. He proposed that the Conference should do its work through Committees which would deal with each of the three items on the Agenda, and that the first two Committees, dealing respectively with the Classification of Industries and Occupations and with the Statistics of Wages and Hours of Labour, should meet alternately in order that members of the Conference who wished to attend both of these Committees might be enabled to do so. The various representatives having indicated on which of the Committees they were desirous of serving, the Conference adjourned until such time as the Committees had reported.

COMMITTEE A

Classification of Industries and Occupations

The Committee on the Classification of Industries and Occupations, which was presided over by Mr. HILTON, Director of Statistics at the British Ministry of Labour, held four sittings on the 30 and 31 October and 1 November.

INTRODUCTORY STATEMENT

At the first sitting an outline of the subject before the Committee was given by Mr. K. PRIBRAM, Technical Secretary of the Conference, and Chief of the Statistical Section of the International Labour Office, as follows:

“It is hardly necessary at a meeting of statisticians to emphasise the necessity of international standardisation of industrial and occupational classifications, nor to recall the previous attempts made in this direction. I do not intend in my introductory remarks to repeat what is already said in our Report, but rather to limit

myself, in order to facilitate our deliberations, to intimating the main considerations which led us to formulate certain draft resolutions. Discussion of the details can, of course, only be successfully undertaken after an agreement has been reached on some general principles.

“In the Report which is before you, we have tried to approach the problem of classification of industries and occupations from two distinct points of view: the object of the statistics and the character of the statistical data suitable for the purpose, so as to find out how far material may be adapted to the objects in view. Considered from this double point of view, the problem of classification presents special difficulties. Our task is to classify the whole population of the country with regard to its economic position. As far as labour statistics are concerned, each branch seems at first sight to ask for a different grouping. It is, however, evident that it is impossible to adopt as many classifications as there are branches of labour statistics. Further consideration leads to the question as to whether it is advisable or desirable to look at the problem from the narrower standpoint of labour statistics only, and to propose a scheme suitable for all or for the main classes of labour statistics, but not necessarily suitable for other statistical enquiries. This point has been thoroughly dealt with in the answer of different governments to the attempts of the Technical Committee on Unemployment to draft a scheme of classification specially to meet the needs of unemployment statistics. The International Labour Office is now fully convinced that a sound classification of industries which might be generally acceptable must be drafted with a view to the fundamental problems to which the classification should correspond, i.e. the problem of showing the importance of the different industries in the national economy. The adoption of this principle is the first point on which agreement is desirable in order to get a common ground for our discussions, but I trust there will not be any deep difference of opinion on this subject. It is rather of minor importance to consider how and to what extent the special objects of the different classes of labour statistics might require modifications in the general scheme.

“ Before dealing with this question, however, I should like to draw your attention to the second point of view mentioned above, i.e. the character of the statistical data. Looking at it from the point of view of the material which forms the basis of our investigation, i.e. the whole population engaged in the industrial life, we are tempted to carry out an analysis of the population as far as

possible, i.e. up to the final unit, the individual engaged in the economic life, and then group the individual according to some principles adopted, either on *a priori* grounds or based afterwards on the results of the records supplied by individuals. It is on these lines that general occupational censuses of population are carried out, and the difficulty, if not impossibility, of grouping individuals merely by summing up the records which indicate identical or similar occupations has led in all cases hitherto observed to the adoption of some *a priori* system of grouping. Among these the well-known Bertillon system might be mentioned, not only because it is the first attempt at an international scheme but also because of its practical importance for the development of existing systems of classification. If, as mentioned above, the population is analysed right down to the individual engaged in industrial life it is the individual that forms the basic unit of the classification; the individual from the point of view of his occupation, isolated rather than considered in connection with the economic structure of the country. In grouping individuals the classification will be essentially occupational in character.

“The disadvantages of such a grouping are obvious. Individuals do not exist in actual life as isolated parts of a community but as links in a chain, as members of an organism. In the more recent occupational censuses, in consequence, serious attempts have been made at restoring the connection of the individual with the undertaking or establishment with which he is connected by adding to the forms to be filled in questions relating to the position of the individual in the industrial life. These attempts, however, did not prove completely successful. At all events, they indicate the great problem as to whether a satisfactory general view of the economic structure of a country can be obtained at all by carrying out the analysis as far as the individual himself. The fundamental parts of economic life (as far as production, transport, and commerce as opposed to consumption are concerned) are not the individuals but the undertakings, establishments, and plants. A classification suitable for showing the economic structure of the country should therefore be based on a higher unit than the individual, on the undertaking or plant considered as technical unit for the purposes of production and distribution of goods and services. It is on these lines that a classification of industries is to be provided, clearly distinct from a classification of occupations which deals with the isolated individual. Some practical experiments on these lines have already been made with industrial censuses. Their

obvious disadvantage consists mainly in the fact that people unemployed on the date of the census or not occupied in close connection with some industrial unit are left out of account, but this disadvantage is not serious enough to outweigh the obvious merits of an enquiry, the nature of which is far more suitable for showing the economic structure of a country than an occupational census. If this idea is accepted, we need a classification of industries as well as a classification of occupations. I therefore submit this distinction for your consideration, and I venture to hope that an agreement on this point which is covered by the first of our draft resolutions might be reached.

“I do not intend in these introductory remarks to deal with the details of both these classifications, but should like to indicate the chief principles to be considered if an international agreement is to be reached. As far as the main groups of an industrial classification are concerned there seems to be very considerable conformity between the different schemes existing. The classification is based essentially on the character of the process, and hence a distinction is generally made between production of goods and rendering of services, the group ‘production’ being sub-divided into two main groups, viz. primary production and secondary production. Our proposed scheme on this point will be found in our second draft resolution.

“The existing conformity, however, which is observed in the main groups, is completely absent if we turn to the details of one of these main groups, viz. manufacturing industries. With regard to the diversity of the existing sub-divisions of this group it seems hopeless to arrive at any agreement if the bases of existing classifications are not carefully considered and some definite principles established as to their relative importance and suitability for our purposes. In this connection it is desirable to keep clearly in mind the main object of the industrial census, viz. to give a survey of the economic structure of the country. As is well recognised by those familiar with the problem, the existing sub-divisions of the group ‘manufacturing industries’ are based mainly on three different lines. Industries are grouped either according to the materials worked in, the processes of manufacture, or the object or nature of the product. If it were possible to choose one of these principles exclusively and eliminate the others the problem would be more easy to solve than it is in point of fact. But all the efforts in this direction have led, as far as we are aware, to no evident result. I therefore submit for your consideration a proposal to the effect

that the sub-division of the group 'manufacturing industries' should be based on a combination of the three above-mentioned principles. I am aware of the fact that this might meet with opposition but I look forward to this discussion with a greater interest on this account, since it is likely to lead to valuable results.

"The proposal made in our third draft resolution, that a combination of the three principles is deemed necessary, leads to the question as to how this combination is to be effected, and we venture to propose with regard to the main character of the existing classifications that, in the first resort, the material worked in might be taken as basis, but only in so far as industrial life has not developed in the direction of forming separate undertakings or plants which are quite distinct from those working in the same materials, or of separate plants and undertakings using different materials for the manufacture of products. In these cases either the process or the nature of the product is to be taken as the leading principle.

"On these lines we made the attempt to draft, in our fourth draft resolution, a preliminary scheme, more with the object of showing clearly the results of an attempt of this kind than with the hope that this scheme might meet with general agreement. We have, of course, by no means overlooked the arbitrary character of many decisions taken with regard to the doubtful and borderline cases, and we are anxious to know the opinion of our experts as to the soundness of these decisions. As in other cases, practical considerations and the need for conserving what has been rendered almost sacred by tradition might sometimes outweigh the conclusions arrived at by purely logical reasoning. Even if such a grouping of industries on these lines does not meet the special needs of all classes of statistics, especially labour statistics, it might form a sound basis for international comparisons of a general character.

"In cases, however, where special purposes require a grouping different from that adopted for general use, a modified classification might be rendered possible by appropriate sub-grouping within the general scheme. As a basis for determining the sub-groups, one of the principles mentioned above might be taken to which the special statistical purposes give a more important weight, e.g. the material used, in order to show the importance of certain kinds of raw material in the national production. It might, however, be another principle, e.g. use of different types of motive power employed in industry (electricity, steam, wind, etc.) or the importance from the point of view of public needs (public utility services and other) or the ownership of the undertaking (private indi-

viduals, private corporations, public bodies, etc.) or the risk to life and health of those engaged in the different industries (grouping according to frequency and severity rates for the purpose of industrial accident statistics) and so on. This method of establishing appropriate sub-groups which allow for re-combination and re-grouping might be recommended to those countries which hesitate to adapt their schemes to the proposed classification either by reason of administrative difficulties or of avoiding modifications which would render subsequent industrial censuses incomparable with former ones. Suggestions of this kind are dealt with in our fifth draft resolution.

“Dealing, finally, with the problem of occupational classification, we reached the opinion that it is very difficult, if not impossible, to prepare a general scheme for international comparison so long as clear definitions of the different occupations and a generally accepted terminology do not exist. In most branches of labour statistics (wages and hours of labour, employment, strikes, and lock-outs) it might be possible to manage with some broad classes (skilled, semi-skilled, and unskilled workers, technical staff, clerical staff, etc.) and to take as the basic unit the plant or undertaking in which the workers are engaged. This method, however, is obviously unsuitable for unemployment statistics, which demand a grouping of individual workers, but in this case the character of the material available, whether supplied by trade unions, by labour exchanges, by general unemployment insurance institutions, will determine in the first place the grouping which might be accepted. A resolution on these lines is submitted in Draft Resolution 6 and there is added to it a seventh resolution, which aims at reaching general agreement with regard to the definition of typical categories of workers in at least the most important industries. Only when this work has been carried out satisfactorily can the solution of the problem of a sound international classification of occupations be undertaken. Such a classification is likely to be based as proposed by the British Empire Statistical Conference mainly on the principles of processes carried out and material worked in.

“Perhaps I may be allowed to review in a few phrases the problems which we consider specially suitable for the general discussion, without of course suggesting any limitation to the scope of the discussion. The first problem is that of the main object which the classification is deemed to serve and to which all other possible objects are to be subordinated. The second is the distinction between the classification of industries and the classification of

occupations. The third is the principles to be adopted for the main groups and especially for the 'manufacturing industries'. The fourth is the possibility of establishing sub-groups which might allow for re-combination or re-grouping, if the need arises for special classifications, either because of national interests or because of the special purposes of statistical investigation. The last problem is the inevitable admission that it is premature to undertake a complete classification of occupations as long as an international agreement as to definition of the most important occupations is not reached.

"In conclusion, I hope that results of our discussions will mark a decisive step in the history of the problem of classification and lead to the adoption of a sound basis for future deliberations."

DRAFT RESOLUTIONS

1. — A classification of industries should be distinct from a classification of occupations.

2. — Industries and services should be classified into the following main divisions:

A. PRIMARY PRODUCTION.

I. *Agriculture*, i. e. the cultivation of the soil, the tending of animals, fishing, forestry, etc.

II. *Mining, Quarrying, etc.*, i. e. extraction of minerals⁽¹⁾.

B. SECONDARY PRODUCTION.

III. *Manufacturing Industries, etc.*, i. e. the transformation or modification of materials, together with the construction of buildings, roads, etc., and the repair of finished products.

C. SERVICES.

IV. *Transport and Communication.*

V. *Commerce, Finance, and Trade.*

VI. *Public Administration and Defence.*

VII. *Professional Services.*

VIII. *Domestic and Personal*, i. e. the supply of 'board and lodging', and the rendering of personal services for which remuneration is paid.

3. — In classifying manufacturing industries the undertaking, plant, etc., considered as a technical unit should be taken as basis. Since it

⁽¹⁾ Here a general distinction is drawn between minerals and metals, the 'extraction' of metals from ore not being included in this group.

is not practicable to base the classification on one principle only — the materials used, the process, or the product — it is necessary to use a combination of two or all of those principles. An appropriate method of combination for general purposes appears to be that of giving groups based on the materials used as foundation for the classification, but wherever the industrial organisation permits or demands that an important group should be given separately on the basis of the process or product, a separate group should be formed.

4. — By an application of the method of classification outlined in Resolution 3, the following scheme of classification of manufacturing industries is proposed:

Manufacturing Industries

- (1) Woodworking industry.
- (2) Furniture manufacture.
- (3) Metal industry (other than precious metals), including primary processes, founding, and secondary processes.
- (4) Manufacture of machinery and miscellaneous metal products, including cutlery, tools, utensils, etc.
- (5) Construction of boats, ships, and vehicles for transportation by land and air.
- (6) Manufacture of bricks, earthen ware, and glass.
- (7) Construction of buildings, and the making and repairing of roads, railways, bridges, canals, etc.
- (8) Production and transmission of gas and electricity, and the supply of water and water power.
- (9) Manufacture of chemicals and allied products.
- (10) Textile industry.
- (11) Clothing industry, including hosiery, boots, and shoes.
- (12) Manufacture of leather, skins (other than boots, shoes and gloves), and rubber and its products.
- (13) Preparation and manufacture of foods, drinks, and tobacco.
- (14) Manufacture of paper, bookbinding and printing, including photography.
- (15) Manufacture of scientific and musical instruments, clocks and watches, precious metals and stones.
- (16) Other manufacturing industries, including those working in materials such as bone, horn, ivory, celluloid, etc., and those manufacturing various products, e.g. toys, pencils, brooms and brushes, artificial flowers, etc.

5. — For special purposes a different grouping may be desired so as to give greater weight to one principle of classification and this should be rendered possible by appropriate sub-groupings within a general scheme. Similarly in countries where, because of administrative difficulties, it is not possible to adopt a classification on the lines proposed, an attempt should be made to give sub-groups which might be re-combined to allow comparisons to be made with the statistics of countries which have put the scheme into operation.

6. — In classifying occupations for the purpose of labour statistics, the undertaking or plant as defined in Resolution 3 should, as far as possible, be taken as the basic unit if the special purpose (e. g. unemployment statistics) or the data available do not prevent the adoption of this basis. Within the undertaking or plant the persons engaged should

be grouped in occupational groups varying in detail according to the object and purpose of the statistics.

7. — It is desirable for purposes of international comparison that agreement should be reached with regard to the definition of typical categories of workers in each of the most important industries.

GENERAL DISCUSSION

The discussion was opened by Mr. COATS (Canada) who drew attention to the desirability of co-ordinating the work of the Committee with that of other institutions working on similar or connected problems. At the recent meeting of the International Statistical Institute at Brussels, for example, the question of a classification appropriate for statistics of international trade had been considered. The Economic Section of the League of Nations was also considering the problem of classification in reference to commercial and other statistics. It was desirable that the classification problem should be considered as a whole.

Mr. JULIN (Belgium) observed that it could not be the intention of the Committee to act counter to the decisions of other institutions, particularly the International Statistical Institute. The present Committee of Experts might proceed on similar lines to those of the Mixed Committee recently set up between the League of Nations and the International Statistical Institute.

After further discussion, in which Sir Timothy Coghlan (Australia), Mr. Gascon y Marin (Spain) and Mr. Hilton took part, Mr. PRIBRAM assured the Committee that the International Labour Office desired to maintain the friendliest relations with the International Statistical Institute and all other interested bodies. He pointed out that the presence of various members of the International Statistical Institute, including Mr. Julin, who had been the reporter of the Committee of the Institute on the classification of statistics of international trade, would be an adequate guarantee that the present Committee would have full information on the work already accomplished by the Institute.

Mr. JULIN doubted the possibility of establishing a single classification applicable to all branches of statistics, and pointed out that a classification suitable for statistics of international trade might include groups which could find no place in classifications of industries or of occupations. At the same time there was a number of large industrial groups common to all countries, e.g. textile industries, clothing industries, etc., on which the Com-

mittee could probably agree. Mr. HILTON hoped that even if the Committee could not arrive at a classification which could be applied in all countries, it might indicate the main lines of a standard scheme of international classification which would be most suitable for labour statistics, if not perhaps for other branches of statistics. Any standard scheme on which the Committee might agree could be recommended to the Governments with a view to its being adopted or considered by States which might be contemplating changes in their present system. Mr. KLEZL (Austria) agreed with Mr. Julin that it was impossible to arrive at a single system of classification for all branches of statistics, and doubted whether a single system could be adopted even for the various branches of labour statistics only.

Mr. PRIBRAM explained that the intention of the Office had not been to propose a single classification for all branches of labour statistics but simply to endeavour to secure a skeleton classification in which various sub-divisions might be introduced as required for the purposes of different branches of labour statistics. Such a skeleton classification would facilitate a comparison of the economic structure of each country, and would at the same time be adaptable to special requirements.

Mr. HILTON considered that the most important use to which classifications of industries and occupations were put was in connection with the population census. The results of the census were often the basis on which other statistics were built or to which they referred. Mr. HUBER (France) agreed that the Committee should concentrate its attention on devising a classification suitable for the census, without going into the question of what were the best classifications for special purposes such as unemployment, wage, and other branches of labour statistics.

DISCUSSION ON THE RESOLUTIONS

The Committee next proceeded to consider the draft resolutions prepared by the International Labour Office, the first of which was to the effect that "a classification of industries should be distinct from a classification of occupations".

In reply to a question by Mr. Klezl, Mr. PRIBRAM explained that for the purposes of labour statistics, individuals could not be regarded merely as isolated units, but were combined into larger

groups, namely, establishments, and for this reason a classification of individuals according to the industry in which they were employed had been proposed, distinct from the personal occupation of the individual. The Office had, however, submitted a draft classification of industries only, considering that with regard to occupations a list was all that was necessary.

Mr. PLATZER (Germany) pointed out that there were, in his opinion, two methods of dealing with the problem, either by a classification of individuals by occupation or a classification of occupations in each industry. The classifications by occupation had been instituted in order to deal with an economic organisation quite different from that which existed at the present day and could not meet the conditions of present day industry. A new system had therefore become necessary, combining a classification of industries with a classification of occupations in each industry. This system had been tried in Germany and had proved more effective for purposes of comparison than the old system, and should, it seemed, be taken into consideration by the Committee.

Mr. HILTON and Mr. HUBER agreed that the information furnished by the census called for two separate classifications as indicated by the draft resolution. Mr. Huber pointed out that such classifications existed in a number of countries, and were less complicated than that suggested by Mr. Platzer of having a classification of occupations within each industry. He questioned whether the Committee could properly leave aside the question of a classification of occupations and simply deal with the classification of industries as he understood Mr. Pribram to have suggested. A classification of occupations was necessary not only for labour statistics, but also for demographic statistics. Moreover, the two classifications, which were mutually complementary, were used in a large number of countries, and it therefore seemed hardly possible to deal with only one of them.

After further discussion in which Sir Timothy Coghlan and Mr. Van Dam Isselt (Netherlands) took part, Mr. HILTON summarised the main points raised, and said that most countries desired to obtain information on two separate and distinct points regarding their workers, first, how many workers throughout the whole country followed this or that occupation, and secondly, how many workers were employed in this or that industry. Such basic information was necessary for a number of different purposes, for example, on the first point in order to determine the incidence of accidents or diseases in a particular occupation, and on the second

in order to determine how many workers were affected by a depression in a particular industry. The chief means of securing the necessary information was the census. As regards the presentation of the information, all were agreed that a classification of industries was required, and it was also agreed that it was necessary to ascertain the number of persons engaged in the chief occupations in the different industries. But the information presented in this way was necessarily limited and could not indicate the total number of workers in a country engaged in any particular occupation.

For these reasons the two classifications distinguished in the draft resolution were necessary. The resolution, however, required a certain amplification. He suggested therefore that a small drafting committee should be formed to endeavour to agree on a new text to be submitted to the Committee at its next sitting. This proposal was adopted, and the Committee then adjourned.

At the opening of the second sitting, Mr. HUBER, on the invitation of Mr. Hilton, read the text of the resolution prepared by the drafting committee. He explained that the word 'industry' used in the text was intended to cover not only industry properly so-called, but also services. This resolution provided that the information obtained at the census of population should enable workpeople to be classified separately according to (a) the industry in which they are employed, and (b) their personal occupations, and that the classification by industries, which is the more important, should be supplemented by an enumeration as detailed as possible by personal occupation within each industry.

In the discussion which ensued, in which Mr. Julin, Mr. Gascon y Marin, Mr. Huber and Mr. Klezl took part, the opinion was expressed that, while most countries would probably be ready to classify their workers by industries, it would not be possible in many countries to make a classification by occupations in each industry, and a new text drafted in the light of the points raised was submitted by Mr. Huber as follows:

Occupied persons should be classified in the first instance according to the industry in which they are employed, and within each industry they may be further classified according to their individual occupation. As it is not possible to give this double classification in sufficient detail to show the total number of workers in each individual occupation, it is necessary to make a second classification of all occupied persons, according to their individual occupation, so that for comparative purposes two separate classifications of all workers will be available (a) by industry, (b) by individual occupation.

In presenting this text Mr. HUBER explained that it maintained the principle, which it seemed necessary to preserve, of two classifications, one by industry, and the other by occupation, and gave priority to the former. From the ideal point of view it might be desirable to have a complete classification of workers according to their occupations within each industry, but this was a measure which it seemed impossible to recommend to the great majority of countries in view of the enormous labour which it would involve.

Mr. JONSBURG (Norway) was of opinion that there were in all countries groups of workers which could not be classified according to their occupation within industries, but which had to be classified separately. Hence in a number of countries a mixed system of classification was used, combining classification by industries with classification by occupation.

Mr. HILTON considered that the dual classification recommended in Mr. Huber's proposal met the point raised by Mr. Jonsberg. He pointed out that there were cases in which occupations were only found within an industry, e.g. coal-mining. Here a classification by industry would be the same as a classification by occupation, and would give the total number of persons engaged in such occupations throughout the whole country. On the other hand, there were many occupations which it was impossible to show under each industry, e.g. washerwomen, carters, etc. The total number of persons engaged in these occupations could only be secured by a separate classification by individual occupations.

Mr. van DAM ISSELT did not agree that it was impossible to make a classification of all occupations within each industry. Such a classification, in fact, was made in the Netherlands. He therefore suggested that the word 'as' at the beginning of the second sentence be replaced by the word 'where', and with this amendment the text submitted by Mr. Huber was adopted.

Passing to the discussion of the second of the draft resolutions dealing with the main industrial divisions, Mr. COATS suggested that fishing and forestry should not be included under agriculture, but should be shown as separate headings. Mr. van DAM ISSELT and Mr. NYSTROM (Sweden) agreed with this suggestion. Mr. GASCON Y MARIN considered that the production and transmission of power (gas, electricity, etc.) might be introduced under 'Primary Production'.

Sir Timothy COGHLAN suggested that as in countries like the Argentine and Australia pastoral occupations were quite distinct from agriculture, they should be mentioned separately.

With regard to Secondary Production, Mr. COATS suggested that four sub-divisions might be given, namely, manufacturing industries, hand trades, public utility industries (gas, electricity, etc.), and construction. He stated that construction had formerly been included under manufacturing industries in Canada, but had subsequently been classified separately because its inclusion under manufacture was generally considered anomalous.

Mr. PRIBRAM agreed that it would be possible to separate construction from manufacture, but it appeared difficult to introduce a special heading for hand trades.

As to Services, Mr. JONSBURG pointed out that in Norway, hotels and restaurants were included, not under 'Domestic and Personal', as in the proposed classification, but under 'Commerce'. Mr. Gascon y Marin asked whether the group 'Public Administration' was intended to refer only to persons employed in the public administration or whether it would include workers in State and other publicly owned industries. Workers in such industries were on a different footing from workers in private enterprises, and should therefore, he considered, be shown separately.

Mr. PRIBRAM said that the classification of workers in State and publicly owned industries separately from workers in private industry might be useful for certain special purposes. The question as to whether certain industries were wholly or partly owned and managed by the State was not, however, of primary importance in the study of the industrial and economic structure of a country.

Mr. HUBER was in agreement with Mr. Marin in thinking that it was necessary, for the purposes of labour statistics, to classify workers in State and other publicly owned industries separately from workers in private industry, on account of the special position of the former as regards pensions, security of tenure, etc., and indicated that this method had been adopted in France for some considerable time.

Referring to the general course of the discussion, Mr. Huber expressed the opinion that the observations which had so far been made indicated the great difficulties of arriving at an agreement on any satisfactory classification. Even if the Committee could agree on a classification, there would probably be still further difficulties in the way of securing its adoption in the different countries. Apart from the inherent difficulty in changing existing classifications, it was doubtful whether it was desirable to effect any big changes immediately, seeing that to do so would complicate

comparisons with the figures of previous years. The limited extent to which Bertillon's scheme of 1893 had been adopted in the various countries was a warning against too much optimism.

The real difficulty in the problem, in Mr. Huber's opinion, was the logical order in which industries were to be arranged. On this there was endless controversy and differences of method. On the other hand, there were say 200 to 300 important industries common to practically all countries, which might furnish a basis for international comparison. On the basis of these industries could not the Committee proceed on the same lines as those followed by the Bureau of Statistics of International Trade founded in 1913, which, in face of the impossibility of asking the countries which had adhered to the Convention adopted to give up their classification in favour of a uniform international classification, had decided to leave each State to follow its own system but to request it to give a summary of its figures under the most important headings of the international classification adopted? In the same way, Mr. Huber suggested, the Committee might request the Office to draw up a list of the 200 to 300 important industries common to the statistics of the great majority of countries grouped in any convenient order, say alphabetical order, submit it to the members of the Committee and then transmit it to the different governments with a request that in addition to their own returns of labour statistics classified according to their own systems they might give a summary of these returns under the main divisions of the list drawn up. This procedure would avoid the difficulty of the order of the arrangement of industries to which he had referred and which, after all, was only of secondary importance from the point of view of comparing labour statistics.

Mr. HILTON, summarising the discussion, explained that the second draft resolution was merely an attempt to outline the main groups into which industries could be divided, and not to establish a complete ideal international classification. Whatever classification of industries the Committee adopted, the Committee could not hope that the different countries would immediately change their own systems in order to conform with this classification for any international purpose. The Committee could, however, indicate the broad general lines on which it might be possible progressively to secure uniformity in the future and could suggest to countries which might be contemplating changing their systems that they should take into consideration the principles adopted by the Committee.

In Mr. Hilton's opinion the main divisions, A. B. and C. of the proposed classification would not give rise to any difference of opinion and might therefore be adopted. The eight sub-divisions (in Roman numerals) would probably not meet with similar agreement, but it had to be remembered that this classification had been drawn up by the Office after careful study of a volume of material which was not available elsewhere. He indicated that he was prepared to accept the draft resolution as it stood with the modification of primary production on the lines indicated during the discussion.

After further discussion, Draft Resolution 2 was adopted subject to a slight amendment of the first group.

On the suggestion of Mr. Huber, Draft Resolution 3 was divided into two parts; the first part, which was as follows, being regarded as Resolution 3:

In classifying manufacturing industries, the undertaking, plant, etc., considered as a technical unit, should be taken as a basis.

After a short discussion in which it was agreed that the word 'establishment' should be substituted for the words 'undertaking, plant, etc.', the resolution was adopted without opposition.

On the second part of the original Draft Resolution 3, which dealt with the principles to be adopted in classifying manufacturing industries, Mr. COATS considered that this was the most difficult and important part of the programme before the Committee and that it should be approached not only from the standpoint of labour statistics, but of statistics generally. He did not agree, as was stated in the draft resolution, that it was impracticable to base a classification on a single principle. In his own office separate classifications were made and applied throughout the whole field of statistics on single principles, e. g. the principle of the component material which was for general statistical purposes perhaps the most important, and the principle of the purpose of the commodity. Under this system each heading covered all the sub-groups which naturally pertained to it, and this was at once simpler and more complete than the system outlined in the draft resolution.

Mr. HILTON agreed with Mr. Coats as to the importance of the resolution under discussion. He had gathered from Mr. Coats's observations that the suggestion was that industrial establishments should be shown in three separate classifications, based on

the three criteria referred to in the draft resolution and each containing within it the whole of the industrial groups in the country. This suggestion, in his opinion, was going much beyond the principles recommended in the resolution which had already been adopted by the Committee that morning. If the object in view of the present Committee was to suggest the most appropriate classification of industries for labour statistics, the proposals made in the resolution under discussion seemed more suitable than Mr. Coats's suggestion, because they corresponded with the everyday facts of industrial life and were more in accordance with the practice followed in all countries except Canada. At the same time, the Committee would probably have to take account of the system referred to by Mr. Coats, and it might therefore be desirable to modify the wording of the draft resolution so as not to exclude the possibility of further development along those lines. In any case, if the Committee did not feel in a position to make any definite proposals for a standard international classification of manufacturing industries, it might perhaps adopt a proposal on the lines of the suggestion made by Mr. Huber at the second sitting in another connection.

Mr. HUBER expressed the opinion that, though it was no doubt humiliating to have to admit that a classification of industries could not be established on scientific principles, it had to be recognised that the three criteria, materials worked in, process, and product, were combined in varying degrees in the classifications employed in the different countries and that no single one of them alone gave satisfactory results. He himself preferred to give priority to the process, because in the course of industrial development the same processes were being increasingly applied to different materials, but recognised that the other two criteria must also be employed. In his opinion, it was perhaps doubtful whether any agreement could be reached on the general principles on which classifications of industries should be based. Once more it was the logical order of arrangement which created the difficulty, but was it of primary importance to secure a uniform arrangement? After all, the essential thing for international comparison was to secure information regarding the more important manufacturing industries common to all countries. It might accordingly be the best course not to pronounce on the question of order but to invite the International Labour Office to draw up a list in any convenient order of from 200 to 300 industries regarding which information was required and to communicate this list to the different States

with a request that they should consider the possibility of subdividing the groups employed in their own classifications so as to furnish the necessary information concerning the industries included in the list. This suggestion, of course, involved the suppression of the resolution under discussion, but it would at any rate secure figures which could be compared internationally.

Mr. HILTON indicated that he was prepared to recommend that Mr. Huber's suggestion should be adopted if the Committee wished to avoid a long discussion on the problem before it. In his opinion, Mr. Coats's system could not be adopted in labour statistics, in which it seemed impossible to proceed on purely logical principles, but in which the actual facts of industrial life and conditions and the practical objects in view must be the determining considerations.

Mr. PRIBRAM gave some explanations of the considerations which had led to the proposals submitted in the Report prepared by the Office. He indicated that in the course of the preparation of the Report, the idea of proposing a tripartite classification as suggested by Mr. Coats had been studied, but it had been considered that such a classification would not be likely to be accepted by statisticians generally and that, in any case, it would not cover every case. In view of the immense variety and the historical development of economic and social life, it had appeared that the most reasonable basis to suggest for international consideration was one which combined the three criteria referred to in the draft resolution, but which gave preference to the materials worked in on account of the historical priority of this principle. If in the opinion of the Committee it was considered premature to recommend this system at the present stage, he would be prepared to accept Mr. Huber's suggestion and hoped that the Secretariat of the League of Nations might be invited to co-operate with the Office in drawing up the list of industries. Even after such a list had been prepared, however, the question of classification would still remain, and Mr. Huber's suggestion could therefore only be regarded as provisional.

Mr. JENSEN (Denmark) supported Mr. Huber's suggestion, but considered that it would be preferable to reduce the number of industries to be included in the list to about 100 in order to avoid the confusion which might arise from a much larger number of industries which might not always be clearly defined.

Mr. COATS considered that if classifications were made for the purpose of social and economic analysis, his system was

the most suitable. For these purposes it was not the main groups but the sub-groups which were of primary importance in the daily work of the statistician. He was not proposing a tripartite system. The three principles referred to in the draft resolution, it was true, were the most common, but there were others which might be employed. In his opinion, separate classifications based on single principles were much less confusing and more accurate than a single classification based on mixed principles. It was at once logical and in accordance with actual fact to proceed on single principles, because regarding many industries more than one fact had to be taken into account and some of those facts were bound to be sacrificed to others in a single classificatory system. If, however, the Committee considered that it could not make any definite proposals on the problem before it, Mr. Coats indicated that he would be prepared to accept Mr. Huber's suggestion in the hope that it would lead to further consideration being given at a later date to this important question of classification.

Mr. HILTON then read out the text of a proposal drawn up by Mr. Huber to replace the resolution under discussion. This text was as follows:

Until such time as an agreement can be reached on the scientific bases of classifying industries and in order to facilitate international comparison, the grouping of industries used in the different countries should be so sub-divided that it would always be possible to secure separate information concerning an adequately complete number of industries included in an alphabetical list which might be drawn up by the International Labour Office in consultation with the Secretariat of the League of Nations and the statistical offices concerned in the different countries.

It would be desirable that an agreement should be arrived at on this subject with the International Statistical Institute.

Mr. LOVEDAY, speaking as representative of the Economic and Financial Section of the Secretariat of the League of Nations, welcomed the invitation to the Secretariat to collaborate with the International Labour Office in the preparation of the list of industries. This proposal was on the same lines as an analogous resolution adopted by the 1922 Assembly of the League of Nations to the effect that the Secretariat should co-operate with the International Labour Office in the study of problems of statistical methodology, and the Secretariat would be all the more glad to render its assistance in the work contemplated in view of the fact that a programme of work on statistical methods which had recently been drawn up by the Secretariat in conjunction with the Inter-

national Statistical Institute included the question of the co-ordination of commercial and industrial classifications.

Mr. HILTON thought it might be regrettable if the Committee adopted any resolution which might bar the way to further developments along the lines indicated by him, and for this reason, he had been influenced in favour of Mr. Huber's suggestion that the Committee should refrain from suggesting any particular method of classifying manufacturing industries as an ideal international standard. It was true, as Sir T. Coghlan had pointed out, that the statistical offices in most countries already had lists of industries. These lists, however, varied considerably and it was for the present Committee to explore the possibilities of establishing a common list which might suit the purposes of the different countries and facilitate international comparison. It was in this direction that Mr. Huber's suggestion might provide a starting point for further advance in the future, and the Committee might be best serving the interests of statistical science if it adopted Mr. Huber's proposal instead of accepting the remaining portion of the original draft resolution. In this connection it was to be noted that Mr. Huber's proposal did not preclude the possibility of the International Labour Office endeavouring, in conjunction with the Secretariat of the League and the International Statistical Institute, to devise a classification of industries on the lines of that presented in Draft Resolution 4, which in the light of the discussions of the present Committee, might be more acceptable to the different countries and thus furnish a more suitable basis for an international standard of classification in the future.

Mr. SOLINAS (Italy) pointed out that the proposal before the Committee differed from the suggestion made by Mr. Huber at the morning sitting, in that it referred to the co-operation of the League of Nations and the International Statistical Institute. The co-operation of these bodies did not seem necessary for the mere drawing up of a list of industries, and Mr. Solinas therefore suggested that the text should be amended so as to exclude any reference to consultation with these institutions.

As the Committee felt that it might be impolitic to refer to these two organisations specifically in the text, the words after 'in consultation with' were replaced by the words 'statistical services or any organisations which might usefully assist in this work'.

After adopting a slight redrafting of the first sentence proposed by Sir T. COGHLAN, Mr. Huber's proposal was adopted unanimously.

The adoption of this resolution rendered unnecessary a con-

sideration of Draft Resolutions 4 and 5, proposed by the International Labour Office, and it was decided also to omit Draft Resolution 6, it being agreed that the first resolution adopted by the Committee covered the same ground.

With regard to Draft Resolution 7 Mr. PRIBRAM explained the considerations which had led to the submission of this proposal. He indicated that the ultimate intention was to endeavour to secure an international glossary of industrial and occupational terms used by different countries in the presentation of their labour statistics. Such a task could not be carried out by the Office without the co-operation of experts in each country.

Mr. HILTON considered that there could be no idea of establishing standard international definitions of occupations. The real difficulty in comparing labour statistics internationally was that the terms used to denote particular occupations in one country did not always have the same significance as the corresponding terms in another. It was therefore most desirable to have some source of reference for information as to the exact meaning of industrial or occupational terms used in statistics in different languages. In this connection the Chairman indicated that a dictionary of nearly all the occupations shown in the census returns was being prepared in Great Britain, which would be of great use to statisticians in other countries wishing to use British statistics. It would be of very great assistance if similar measures, though not necessary on so large a scale, could be taken in as many countries as possible, and the Committee might wish to make a recommendation in this sense. He therefore proposed the following text in place of the draft resolution:

It is desirable for the purpose of international comparison that each country should publish definitions of the occupational, industrial and other terms most commonly used in that country in connection with its labour statistics.

Mr. HUBER supported this proposal. He considered that the publications issued by the statistical offices in each country should give a short glossary of the most important terms used in connection with the statistics which they contained. Similar measures to those to which Mr. Hilton had referred had already been taken in the United States of America and in France, and it was to be hoped that the adoption of the resolution proposed would contribute to promote further progress in the same direction.

The resolution was then put to the vote and unanimously adopted.

This brought the work of the Committee to a close, and Mr. Hilton undertook to present the report to the Plenary Conference.

REPORT PRESENTED BY THE CHAIRMAN OF COMMITTEE A

"The discussion of the Committee on the international standardisation of classifications of industries and occupations were based upon the draft resolutions proposed by the International Labour Office.

"It will not be necessary for me to do more than indicate very briefly the reasons for departure from the text of these draft resolutions in the Resolutions agreed upon by the Committee and adopted for submission to the Conference ⁽¹⁾.

"Draft Resolution No. 1 has been adopted in principle and the amplifications of the original text have been introduced only to make more plain the object of the resolution.

"Resolution 2 has been adopted with the modification of only a few words.

"In considering Resolution 3 it transpired that the Committee was in complete agreement with regard to the first two lines of the draft resolution. These were therefore adopted, with slight verbal modifications, as a separate resolution.

"In the course of the discussion upon the remaining portion of Draft Resolution 3, exception was taken to the statement that it is not practicable to base an industrial classification on one principle only.

"The attention of the Committee was called to the possibility of having separate and distinct classifications of industry based upon one single principle, e.g. the material used, the process, or the product. It was considered that a discussion of the practicability for purposes of labour statistics of a multiform classification of industries would occupy more time than could be spared. As, moreover, this portion of Draft Resolution 3 did not seem to be essential to the statistical scheme propounded in the resolutions taken as a whole, the passage in question was omitted from the resolutions as finally agreed.

"On the consideration of Draft Resolutions 4, 5, and 6 a substantial departure from these texts was made. The Committee

⁽¹⁾ For the text of the Resolution see Appendix II, p. 71.

came to the conclusion that considerable difficulty would be experienced in arriving at agreement upon any such classification of manufacturing industries as that proposed in Draft Resolution 4 and accepted a proposal that, instead of proceeding to the recommendation of a standard classification, it would be preferable to pursue an alternative suggestion, that of recommending that the International Labour Office should prepare, in consultation where desirable with other statistical interests, an unclassified schedule of industries common to most industrial countries, with the object of securing that all countries should so far as practicable adapt their own classifications so as to be able to furnish information with regard to each of the units in the schedule adopted. It was considered that this would be an immediately practicable preliminary to the establishment of an agreed standard international classification at some future date.

"The text of Draft Resolution 7 in the Report prepared by the Office was modified and elaborated so as to make plain and definite the desirability of the labour statistics offices in each country publishing definitions of the more important terms used in their statistical publications with a view to facilitating the international comparisons of labour statistics presented in different languages."

COMMITTEE B

Statistics of Wages and Hours of Labour

The Committee on Statistics of Wages and Hours of Labour, which was presided over by Mr. HUBER, Director of General Statistics (France), held sittings on 30 and 31 October.

INTRODUCTORY STATEMENT

An introductory statement on the subject before the Committee was made by Mr. J. H. RICHARDSON, Technical Secretary of the Committee and Member of the Statistical Section of the International Labour Office, as follows:

"The main principles with regard to satisfactory statistics of wages and hours of labour and the distinctions drawn in the report prepared on this subject for the present Conference are well known

and may be expressed very briefly. The difficulties encountered are rather of an administrative character connected with the collection and compilation of data on principles generally accepted. Often in the different countries the expense involved in collecting and compiling data of a comprehensive character on wages and hours of labour is the chief cause of the meagreness of existing statistics. This meagreness is evident when attempts are made to study the wage situation in a number of countries or to effect comparisons of an international character. The studies and articles on wages published during the last eighteen months by the International Labour Office have shown the great need for more information of a representative character and of continuity in the series of data published. In examining the data available, during the preparation of these studies it was found that many countries published no continuous and comparable series of wage data such as would enable conclusions to be drawn as to changes during a period of months or years. Some countries gave wage rates only while others limited their statistics to statistics of earnings. In a number of cases the data were out of date; no attempt being made to give current rates of wages or hours of labour. Often hourly or weekly wages would be given without information as to the normal or actual number of hours. Further, there was a marked lack of satisfactory cost of living statistics necessary in order to show the relation between nominal and real wages or the effects of changing price levels on the conditions of the workers.

"It may be interesting to give some examples of the difficulties we have encountered in making our studies of wages in various countries and the practical impossibility in many cases of effecting satisfactory comparisons. Thus, to take as example the metal trade, some countries give the rates of wages per hour or per week of special categories of workers, such as fitters and turners, pattern-makers, iron moulders, and labourers. Others give earnings per week or other period of all groups combined, no indication being given as to the wages in different trades. Still other countries give wage data for groups of skilled, semi-skilled, and unskilled workers. Similar difficulties arise with regard to other industries; thus, in the textile industry one country will give the average wages of male and of female workers while in the statistics of another country each group may be subdivided into such categories as spinners, weavers, etc., or may be given even in much greater detail. It is evident that where there is such a diversity in the statistics published, however excellent those statistics may be,

the difficulties in making international comparisons are very great. A further example of the difficulty of effecting comparisons may be considered; thus one country may give the wage rates of typical categories of workers averaged for the country as a whole, others may give them for districts or towns only. Again, some very excellent statistics are published once a year only, averages being given either based on total wages for the whole year or on the wages at some definite period or date during the year. It is clear that in times of rapidly changing wage levels it is very difficult to compare figures of this kind with figures collected and compiled for different periods or different dates. Even when no attempt is made to effect international comparisons the existing wage data are so inadequate that it is found impossible to trace the wage movements in different countries over a period of years for more than a comparatively small number of countries, and in some of the articles that we have published the discontinuity of the data available has sometimes limited our survey of the wage movement to seven or eight countries only.

“The attempt to estimate changes in real wages is even more difficult, owing to the inadequacy not only of wage data but of statistics showing changes in the cost of living, and one finds attempts to trace the movement of real wages on the basis of the changes perhaps of a few items of food only. In one case which we have examined, real wage index numbers were calculated on the basis of price changes of five articles of food. It hardly requires pointing out how inadequate such statistics are, no account being taken of changes in the price of clothing, fuel and light, rent, and the many other items entering into the expenditure of the workers.

“We are not alone in experiencing these difficulties. During the course of the present year the British Ministry of Labour has attempted to make a comparison of real wages in London with those in the capital cities of other countries. The comparison was confined to typical categories of workers in a small number of important industries. It was further confined to comparison of wage rates, and, in endeavouring to estimate the purchasing power of the wages, comparison was made simply with the prices of a number of articles of food. Even then it was found that the information necessary to make this comparison was not available and special questionnaires had to be sent out to the different countries in order to obtain the basic data necessary.

“In view of these conditions we do not ask, in the proposals which we submit for consideration, for very complete and detailed

statistics of wages and hours of labour. In drafting the resolution, we have endeavoured to avoid everything which might render difficult or costly the work of collection or computation. For this reason we have not made any proposal with regard to the need for general wage censuses, while for data to be published regularly and at frequent intervals our proposals are limited to typical categories of workers in the more important industries. We do, however, ask for continuity in the series published.

"In our Report we have indicated the main objects of statistics of wages and hours of labour. It is pointed out that wage data may be considered chiefly from two points of view, namely, in relation to the cost of production and as providing information regarding the standard of living of the workers. For the first purpose wage rates are the most suitable data, while for the second a knowledge of actual earnings is desirable. In drafting the resolution which we propose, the two main objects of compiling wage statistics have been kept in view, and data both of rates of wages and of earnings are asked for.

"We also propose that real wage index numbers based on nominal wage and cost of living index numbers should be published. The value of such index numbers of real wages evidently depends not only on the reliability and representative character of the nominal wage data but also on the suitability of the cost of living index numbers used. It was thought advisable, therefore, to give an outline of the principal methods of establishing index numbers of the cost of living. This is given in Appendix III of the Report⁽¹⁾. It will, however, hardly be possible to find time during the present Conference to deal with the important problems raised, and which call for separate consideration. Some general principles with regard to the establishment of cost of living index numbers have recently been adopted by the International Statistical Institute, but for practical purposes it will be necessary to go into greater details than were included in the resolutions adopted at Brussels.

"As has been indicated, our resolution has been drafted for the main purpose of obtaining the publication of more wage data of a representative character and in continuous series. There are, however, a number of problems not included in the resolution but which have been touched upon in our Report and with regard to which a general expression of opinion based on the experience of

⁽¹⁾ See INTERNATIONAL LABOUR OFFICE: *Methods of Statistics of Wages and Hours of Labour*. Studies and Reports, Series N (Statistics) No. 2. Geneva, 1923.

members of the Conference would be of great value. Some of these problems, which may be dealt with in the general discussion may be mentioned here. Thus, it would be interesting to know to what extent wage rate data may be used for the purposes of calculating statistics of real wages as an indication of the standard of living of the workers. In some industries it may be possible to use wage rate data without grave risk of error, while in others, conclusions based on such data may be entirely false. In this connection conclusions based on wage rate data may be rendered more accurate by taking into account the amount of unemployment. An expression of opinion as to the soundness of the method of calculating real wage index numbers from wage rates, and allowing for the factor of unemployment as expressed in the trade union or other percentage, would be of value. Again, indications may be given as to the value of different sources of information of wage statistics, of the different methods of collection, and the frequency of collection and publication of wage data. In the compilations and comparisons of wage statistics a consideration of the different kinds of averages may be made, while a discussion on the methods of effecting international comparisons would be a useful guide to us in our work in the future.

"It may be emphasised, in conclusion, that comparisons of wages are now being made with great frequency both between different parts of a country and between different countries, and often unsatisfactory conclusions are drawn on account of the unrepresentative character of existing data. It is hoped that the present Conference may have the effect of leading to an improvement in the statistics of wages and hours of labour published by the different countries, not only as regards quantity but particularly in the qualities of continuity, representative character, and general comparability."

DRAFT RESOLUTION

Statistics of Wages and Hours of Labour should give:

(1) *Current rates of wages* (hourly or weekly) and *normal hours of work* of typical categories of time workers; and at regular intervals averages weighted according to the number of workers to whom the data apply both for such categories and for all categories combined.

(2) *Actual and full time earnings and hours of labour* for typical categories of workers, especially those paid on piece work. Such statistics should be available for sample periods, at least once a year.

(3) *Real wage index numbers* based on nominal wage and cost of living index numbers.

GENERAL DISCUSSION

Mr. HUBER suggested that there should be a general discussion on the problems raised in the introductory statement. The first problem which was discussed was that of the relative values of different sources of statistics of wages and hours of labour.

It was pointed out by Mr. JULIN that statistics of wages obtained from labour exchanges, from other employment agencies, or from social insurance societies are likely to be unreliable. In normal times, the numbers of workers who apply for employment to the labour exchanges constitute a very small proportion of the total number of workers. Also the statistics of employment agencies often cover many workers who are inferior in quality to the general average. The wage statistics taken from the records of social insurance societies are frequently based on a comparatively small number of workers, and are far from being representative of general wage conditions. Again, the statistics of rates of wages fixed by agreement do not in many cases represent the actual rates, but merely the minimum rates. The rates actually being paid may in many cases be distinctly higher than the agreed minima. Mr. KLEZL was in agreement with Mr. Julin as to the unrepresentative character of the wage statistics obtained from labour exchanges and social insurance funds, but both he and Mr. PLATZER indicated that in some industries or even whole countries the rates of wages embodied in the collective agreements are generally representative of the actual rates paid. Mr. REIF (Czechoslovakia) said that in his country the collective agreements were the most important sources of statistics of wages. For some purposes these data were of little value unless combined with data of actual hours. Mr. RICHARDSON said that in making comparisons between the rates of wages in different industries or countries on the basis of rates of wages fixed by collective agreement it is necessary to know not only the rates so fixed, but the relation of these rates to actual rates. A mere comparison of the rates of wages as fixed by collective agreement may lead to very erroneous conclusions.

Mr. PRIBRAM, dealing with the question of wage data from social insurance funds, agreed that such data might be defective, but that they have a considerable value in certain countries (Italy, for instance) in which other regular wage statistics are undeveloped.

A discussion followed on the value of calculating average wages and on the desirability of continuity in the series of wage statistics

compiled. Mr. JULIN and Mr. KLEZL emphasised the fact that averages alone are not sufficient. Certain kinds of averages suffer from the defect that actually no worker is paid the average amount. Mr. Klezl was of opinion that to avoid this difficulty, statistics of wages should include the predominant wages of the various groups of workers. Again, Mr. Julin said that from the social point of view it might be of just as great interest to know the wages of the lowest or of the highest paid groups of workers as to know the average wage. The value of statistics of wages tabulated in detail to show the number of workers earning different amounts (e. g. below 15 francs per day, 15 and under 16 francs per day, etc.) was indicated by Mr. Julin. For general purposes, however, as Mr. RICHARDSON pointed out, averages serve many useful purposes and can readily be calculated from the detailed statistics. Both detailed statistics and general averages should be given in any complete statistics of wages. Mr. Huber, in summarising the discussion on this question expressed agreement with this conclusion.

With regard to continuity in the statistics of wages compiled, this might necessitate frequent inquiries which on account of the large number of investigations required would give rise, Mr. JULIN said, to objections from various governments on financial grounds. It was necessary, however, as Mr. PRIBRAM showed, that wages should be considered not only from the static but also from the dynamic point of view. Wage statistics should give information about the level of wages at a given date and also as to the movement of wages during a period of months or years. In this connection Mr. RICHARDSON said that the International Labour Office had been asked to make comparisons between the standard of living of the workers in certain countries at the present time with that before the war. For such a purpose continuous series of wage statistics were essential.

DISCUSSION ON THE RESOLUTION

The Committee now proceeded to consider the draft resolution proposed by the International Labour Office.

This resolution, as was indicated in the opening statement by Mr. Richardson, might be taken from some points of view to represent the minimum of statistics of wages which all countries might be expected to compile and publish. Mr. HILTON called

attention to the wide diversity which existed in the programmes adopted by the different countries with regard to statistics of wages. This being so, he considered that in addition to indicating a minimum programme it would be of great value if the Committee could agree as to the main features of a more detailed or maximum programme which would constitute an ideal to be aimed at universally, and especially by countries whose wage statistics already generally corresponded with the minimum programme proposed. Mr. RICHARDSON stated that the International Labour Office would be fully in agreement with the passing of a resolution embodying a more complete programme. He, however, pointed out that a considerable number of countries had not yet attained the minimum programme proposed, and urged the necessity of including in the resolution such a programme as well as one which was more extensive. Mr. HUBER agreed with the proposal which had been made. He did not, however, favour the phrase 'maximum programme' and suggested instead that the expression 'ideal programme' might be appropriate. He considered that it would be desirable to try and reach agreement as to an ideal programme of wage statistics, and to indicate in the resolution that when circumstances do not permit the realisation of this ideal programme, the various countries should endeavour to realise a minimum programme on the lines proposed by the International Labour Office.

Sir Timothy COGHLAN expressed the opposite view and considered that the Committee should adopt with minor modifications the resolution as drafted by the Office. In his opinion a large number of countries could not furnish more than was covered by that Resolution.

After some discussion a vote was taken and the Committee decided by 13 votes to 5 that a new resolution including the ideal programme and the minimum programme should be drafted.

Both Mr. HILTON and Mr. JULIN then submitted draft resolutions. Mr. HUBER considered that it would be possible to draw up a text combining these two drafts and it was agreed that the Office, with the assistance of Mr. Hilton, Mr. Julin and Mr. Huber, should examine the two texts with a view to preparing a single draft resolution which would be circulated to the members of the Committee before its next sitting.

At the opening of the second sitting of the Committee Mr. Huber announced that the text of the resolution drafted according to the decisions of the first sitting had been distributed to the members

of the Committee (1). The resolution consisted of two parts, the first embodying an ideal programme for the establishment of statistics of wages, while the second constituted a minimum programme. He would read the resolution paragraph by paragraph and request members of the Committee to make observations on each paragraph.

The opening paragraph was in the following terms:

Detailed statistics of rates of wages, of actual earnings, and of normal and actual hours of labour should be collected and published in each country as frequently as possible, account being taken of the special circumstances and conditions obtaining in each case. With a view to facilitating international comparisons, the responsible authorities in each country should, as far as practicable, observe the following principles...

Mr. BARBOSA CARNEIRO (Brazil) asked whether the resolution was intended to apply to the wages of agricultural workers as well as to those in other industries. He pointed out that in his country it would be extremely difficult to apply the terms of the resolution with regard to compiling the wages of agricultural workers. In reply Mr. RICHARDSON said that, while taking fully into consideration the difficulties which are often encountered in obtaining, for agricultural workers, complete information as to wages, particularly since in many cases wages were paid partly in kind, the International Labour Office nevertheless considered it desirable that statistics of the wages of agricultural workers should be compiled. A number of countries already published such statistics, and often the problem of payment in kind being made as part of the wage was solved by expressing in terms of money the value of these payments and adding the amount to the money wage.

Mr. SOLINAS said that he feared that it would not be possible for every country to publish the information requested.

Mr. JULIN pointed out that the present meeting was one of experts who were not required to pass any recommendations of a diplomatic character such as the recommendations of the International Labour Conference but to endeavour to agree as to the most suitable measures for obtaining reliable information. Mr. HUBER called attention to the fact that the programme under discussion was what had been called an ideal programme. It was realised that this programme could not be applied everywhere and

(1) Apart from certain amendments introduced by the Committee and the Conference, the draft resolution constituted the final text approved by the Conference. This final text is given in Appendix II, p. 72.

for that reason the second part, laying down a minimum programme, was included.

The opening paragraph quoted above, on being put to the vote, was adopted unanimously and without modification.

Mr. HUBER then read the first principle, which was as follows:

- (1) At regular intervals and at least once a year, should be published:
 - (a) statutory minimum rates;
 - (b) rates fixed in collective agreements;
 - (c) rates accepted by organisations of employers and workpeople for typical categories of workers.

On the request of Mr. Huber, Mr. HILTON explained the meaning which the authors of the draft resolution attached to certain of the terms used. He emphasised first of all that the paragraph dealt with *rates* of wages and not with *earnings*. Then, in certain countries, minimum rates of wages are fixed by law, or in other ways are regulated by legislation. These rates, called *statutory minimum rates*, are often lower than the actual rates paid. In countries where such legislation exists, the wage rates so fixed should be published. The *rates fixed in collective agreements* are those concluded between employers' and workers' organisations or between a workers' organisation and individual employers, and they represent the actual rates which are paid. With regard to the rates *accepted by organisations of employers and workpeople*, they were intended to include wage rates recognised or admitted in a country, district, or industry where no agreement existed between employers' and workers' organisations. A difference was pointed out between these data and rates fixed in collective agreements. With regard to 'accepted' rates, the number of workers to whom they apply is generally unknown, whereas in the case of rates fixed in collective agreements, information is generally available as to the number of employers who pay these rates and the number of workers to whom they may apply.

Mr. Van DAM ISSELT stated that the rates of wages fixed in collective agreements did not always correspond with the wages actually paid. When the conditions of the labour market²⁴ are unfavourable, the workers may be obliged to accept wages lower than those fixed by agreements. On the other hand in favourable circumstances they were sometimes paid at higher rates than those fixed in agreements. Mr. SOLINAS agreed with the remarks of Mr. Van Dam Isselt, and added that in Italy, wages fixed in collec-

tive agreements were only regarded as minimum wages. Mr. HUBER recalled that, as Mr. Hilton had said, the question under consideration was one of rates of wages and not of earnings. It was evident that rates of wages might be lower than actual earnings.

Mr. JULIN raised the question as to the distinction which should be drawn between wages and salaries. Evidently if statistics of wages were to be comparable internationally it was essential that each country should adopt the same distinction. Mr. HILTON admitted the difficulty, but believed that it would be impossible to recommend States to make any particular distinction. It would be sufficient if they were asked to explain the meaning assigned by them to the two terms.

A further point was raised by Mr. JULIN with regard to the question as to how additional payments for overtime or Sunday work should be dealt with in compiling statistics of wages. Sir Timothy COGHLAN stated that in Australia rates of payment for overtime were fixed in the same way as the rates of wages for normal time, and these different rates were published in the statistical tables. This appeared to be the general practice in most countries. After an exchange of views it was agreed that in publishing statistics of rates of wages these should include information as to the additional payments made for overtime.

A method used in Holland of calculating rates of wages per hour for normal time from statistics of actual earnings which included payment for overtime was described by Mr. Van DAM ISSELT. The hourly rate of wage was calculated by dividing the actual weekly earnings by the number of hours worked, overtime being converted into normal time, e. g. one hour of overtime paid at double rates being counted as two ordinary hours. He would like the Committee to admit this system. It was agreed after discussion that, in the Report, mention should be made of this practice which is common to a number of countries.

Mr. HUBER said that before putting the principle to the vote he wished to suggest certain modifications in the French text so that it should correspond more exactly with the English. There was an exchange of views between various members of the Committee on the modifications suggested, and it was finally agreed that the French text for "(a) Statutory minimum rates" should be "(a) Les taux minima fixés par l'Etat ou les autorités publiques". Subject to this modification in the French text, the first principle was unanimously adopted.

The second principle was then read and was unanimously adopted without discussion (see Appendix II).

A long discussion took place on the third principle, which was drafted in the following terms:

At regular intervals, not less than once a year, average actual earnings and actual hours of labour during a typical week should be given for each of the principal industries, and based on data supplied by representative employers.

Mr. Van DAM ISSELT did not think that average actual earnings and average actual hours of labour during a typical week gave satisfactory results, and considered that it was possible to ascertain earnings for the whole year. He added that in his opinion, since an ideal programme was being considered, the establishment of a weekly average throughout the year might be asked for.

Mr. HILTON pointed out that in proposing the compilation of statistics of average actual earnings and average hours of labour on the basis of data for a typical week, the Drafting Committee had endeavoured to avoid the difficulty which would arise in inducing employers to make the long and complicated calculations necessary to obtain averages over twelve months. Mr. COATS thought it was necessary to maintain the idea of the typical week on account of seasonal industries, e. g. preserved fruit factories, canned fish factories, etc., which only worked during part of the year.

After further discussion it was agreed that, while leaving the resolution unchanged, the Committee did not at all intend to exclude the possibility of the making of calculations based on data for the whole year, wherever these were available, and it was decided that this should be mentioned in the Report of the Committee to the Conference.

Mr. BRAMSNAES (Denmark) raised the question of the checking of the data of earnings supplied by the employers. He considered that as an ideal programme was being discussed it was desirable that the resolution should include the provision that the figures supplied "should be, if possible, checked by competent representatives of the workers". Mr. HUBER suggested that some other expression might be employed in order to avoid the word 'check', which implied a certain amount of suspicion with regard to the information furnished by the employers.

Mr. JULIN observed that a satisfactory system of checking would be easy if there were in existence joint committees of employers

and workers. It would, however, be very difficult to admit that the information furnished by the employers should be checked by workers' representatives acting solely on behalf of the trade unions. He agreed with Mr. Huber's objection to using the word 'check' and proposed that the figures should be "confirmed, if practicable, by institutions representative of the employers and the workers". In reply to Mr. Bramsnaes' objection that such mixed institutions did not always exist, Mr. Julin said that it was for this reason that he had added the words 'if practicable'. He stated, however, that he was opposed in principle to Mr. Bramsnaes' proposal, and he had merely proposed a different drafting in order to lessen the force of that proposal.

Mr. Huber also was opposed to any expression which would indicate a lack of confidence in the information furnished by the employers. It was dangerous to open the door to auditors to check the data voluntarily supplied. Mr. Solinas generally supported this view; he thought that the most that could be done would be to say that the information supplied by the employers should be checked, if necessity arose, by Government officials.

Mr. BRAMSNAES said that he did not wish to imply any suspicion with regard to the employers. He was willing to lessen the force of his proposal but he would like some reference to be made, possibly in the preamble, to show that the idea of confirmation of the data had not been overlooked.

Mr. RICHARDSON said that in certain countries the data furnished by the employers was subject to verification. Thus in the United States, statistics of actual earnings in a number of industries were obtained from the pay-rolls of representative employers, by officials of the Bureau of Labor Statistics, and the results were excellent. In Germany, a wage census was taken in February 1920 and the information was entered by the employers on forms which were signed by representatives of the workers. Again, in a number of countries the information as to the wage rates fixed in collective agreements is obtained from both parties to the agreement and careful comparisons are made to avoid discrepancies. He observed that some wage data are obtained from the employers and others from workers' organisations, and suggested that any statement with regard to the confirmation of data should be made, not as an addition to the principle under discussion which referred only to statistics of earnings, but by adding a new principle incorporating this question and applicable to all wage data. As an

alternative, a statement might be made in the text of the report to the effect that, if possible, wage data should be confirmed by an impartial authority.

Mr. HILTON supported the suggestion made by Mr. Richardson with regard to the introduction into the text of the report of a statement regarding confirmation by an impartial authority. He thought that it would be dangerous, however, if the Commission should imply that the figures of the employers could not be accepted without verification.

With regard to the rates of wages published by the British Ministry of Labour, Mr. HILTON said that in all cases where these were taken from collective agreements copies were obtained from both parties and the figures carefully compared before publication. Where discrepancies were found, special enquiries were made to determine the rate which had been actually fixed.

Mr. BRAMSNAES said that if it were impossible to reach agreement he did not wish to insist on his proposal regarding the verification of the information furnished by the employers. He would be satisfied if the question were mentioned in the Report. It was agreed that this should be done.

Mr. KLEZL raised the question as to the obtaining of statistics of earnings from workers' organisations. He did not see why figures furnished by employers alone should be considered. In Austria the workers' organisations were more active than the employers' organisations in drawing up statistics of earnings. If it were agreed that only the employers should furnish these data it would be impossible in Austria to draw up statistics of earnings. For this reason he proposed to add after the words "representative employers" the words "or by associations of workpeople". Mr. VAN DAM ISSELT proposed to complete the text submitted by Mr. Klezl by adding the words "or by joint organisations". It was pointed out, however, that joint organisations able to furnish statistics of earnings are practically non-existent. With regard to the obtaining of statistics of earnings from workers' organisations, Mr. RICHARDSON said that although as Mr. Klezl had pointed out such figures were available in Austria, for most countries the only reliable source of statistics of actual earnings was the pay-books of the employers. It was only here that complete information was obtainable, especially with regard to actual earnings when short time or overtime was being worked. This view was confirmed by Mr. Jonsberg and Mr. Huber, and on a vote being taken Mr. Klezl's proposal was rejected by 12 votes to 7.

The text of the third principle in the terms given above was then unanimously adopted.

Mr. HUBER then read the fourth principle:

From the data indicated above, index numbers should be computed to show the general course of changes in nominal wage rates and in actual earnings. Index numbers of the purchasing power of the wages should also be calculated by relating changes in the actual earnings to changes in the cost of living.

Mr. PLATZER, discussing the question of the calculation of index numbers to show changes in the purchasing power of the nominal wages, said that it was essential to relate the nominal wage data to the cost of living data, not during the period when the money wages were earned but during the period in which they were expended. This question is of special importance in countries where the rate of exchange is unstable, and he proposed to add the following paragraph to the fourth principle.

In countries where the exchange is unstable real wages should be computed according to the cost of living index number for the period in which the wage is expended and not according to the index number for the period in which the wage is earned.

Mr. NYSTROM pointed out various difficulties in the calculation of index numbers to show changes in the purchasing power of money wages. Often the cost of living data available were not comparable with the wage data. Enquiries showed that the articles ordinarily consumed by different classes of workers were widely different. This was especially the case with the consumption budgets of industrial and of rural workers, and in the case of the rural workers the difficulties were increased owing to the payment of part of the wage in kind. Evidently cost of living index numbers based on prices in urban areas might be very inappropriate for rural districts. In order, therefore, to calculate index numbers to show changes in the purchasing power of the money wage, account should be taken of these factors and he proposed in agreement with Mr. Huber to add to the fourth principle the words "the necessary precautions being taken to ensure that the two series of data are comparable".

With regard to the two additions which had been proposed, Mr. RICHARDSON observed that Mr. Platzer's proposal referred to a special case which was covered by the proposal of Mr. Nystrom which was more general. He therefore suggested that both questions would be settled if that proposal were accepted. Mr. PLATZER

agreed with this suggestion and withdrew his proposal on the understanding that reference would be made in the report to the special case he had raised.

On the vote being taken the fourth principle was carried unanimously and the addition proposed by Mr. Nystrom was then accepted without opposition.

Mr. RICHARDSON proposed the addition to the fourth principle of the following sentence: "The nominal wages employed in computing the index numbers should be given in every case." He pointed out that certain wage statistics suffered from the defect that index numbers only were given. For some purposes it was of value to know the average money wage and as this was generally available it was desirable that it should be published. The proposal was unanimously adopted.

Mr. HUBER then read the fifth principle (see Appendix II), and there being no opposition nor amendments, it was adopted unanimously.

This completed the first part of the resolution which laid down the ideal programme, and Mr. Huber proceeded to read the second part concerning the minimum programme. No opposition was raised and the three paragraphs (see Appendix II) were adopted unanimously.

The passing of this resolution terminated the work of the Committee. On the suggestion of Mr. Solinas, Mr. Huber undertook to present a report on the decisions reached, to the Plenary Conference.

Mr. Pribram expressed his thanks to Mr. Huber for the excellent way in which he had guided the Committee in its work. He said that the International Labour Office had hoped that the Committee would have had time to discuss certain very important questions such as the calculation of the cost of living index numbers in order to furnish the Office with useful information. It might, however, be possible to hold a subsequent Conference which would deal with the problem of cost of living index numbers.

Mr. Huber saw no objection to stating in his Report that the Committee had not had time to undertake a thorough investigation of the methods of calculating the cost of living index numbers, and that it would consequently be desirable that the Conference should meet in the future in order to examine this problem, account being taken of the recommendations formulated in this respect by the International Statistical Institute at its Fifteenth Session held in Brussels at the commencement of October.

REPORT PRESENTED BY THE CHAIRMAN OF COMMITTEE B

"The work of Committee B was very greatly facilitated by the preliminary report on statistics of wages and hours of work drawn up by the International Labour Office. I may be permitted here to express the thanks of the Committee to the Secretariat who provided a solid foundation for our discussion by summarising in so clear and well arranged a manner the present position of the question.

"This report included a series of three Recommendations presented concisely and with judgement, with the object of enabling an agreement to be easily reached.

"At the commencement of the general discussion which followed Mr. Richardson's statement, it appeared that, in the general opinion of the members of the Committee, the Resolutions proposed had to be considered as a minimum programme, and that it was desirable to indicate an ideal programme, which could not of course be fully realised in every country, but which would point out the direction towards which the efforts of all countries should tend.

"After a prolonged discussion, which enabled all opinions to be voiced, the Committee instructed the Office to examine, with the assistance of Mr. Julin and Mr. Hilton, the authors of various draft resolutions, if it were not possible to reach agreement on a single text which might serve as a basis for further discussion.

"The text distributed at the commencement of the second sitting consisted of two parts; the ideal programme and the minimum programme. With certain amendments introduced during the discussion, it constitutes the final text now proposed for the approval of the Conference.

"It has to be accompanied by certain observations regarding the suggestions made by various members of the Committee, which were not inserted in the text, but which were required to be mentioned in the Report.

"The first observations related to paragraph 3.

"The Committee recommended that the average actual earnings and actual hours of labour should be computed for a typical week at least once a year. The Committee did not by any means intend to exclude the possibility of making these calculations for all weeks in the year when this is possible.

"In computing normal hourly wage rates from statistics of earnings, the Committee accepted the conversion of overtime to ordinary time, e. g. one hour of overtime paid at double rates counting as two hours, but it was not thought necessary to introduce this recommendation in the Resolution.

"Also in connection with paragraph 3, it had been proposed that statistics of actual earnings based on information furnished by the employers should be checked by workers' organisations or by mixed organisations of employers and workers.

"The Committee decided not to refer to the necessity of this verification in the Resolution.

"The Committee also disregarded an additional proposal to the effect that statistics of actual earnings might be requested from workers' organisations, as it was thought that pay sheets constituted the best sources, if not the only sources, for the determination of actual earnings.

"The Committee did not, however, intend to exclude the possibility of comparing statistics of wages emanating from the employers and from the workers respectively.

"In paragraph 4, dealing with the calculation of indices of wages and purchasing power, an addition had been proposed to the effect that, in countries where the currency is unstable, wages should not be compared with the cost of living for the period during which the wage is earned, but for the period during which it is expended.

"This addition was not insisted upon, because it appeared to be included in the more general formula recommending that all precautions should be taken to ensure that the series of indices were comparable. It was, however, understood that it would be mentioned in the Report.

"In conclusion, regret was expressed that the Committee had not had time to examine thoroughly the question of cost of living indices, which are essential for deciding the purchasing power of wages. It was the unanimous opinion of the Committee that this study should, if possible, be resumed at a future session, on the basis of the general recommendations formulated in this connection by the International Statistical Institute at its Fifteenth Session.

"With these reservations, I have the honour to submit for the approval of the Conference the Resolution ⁽¹⁾ adopted by Committee B."

(¹) For the text of this resolution see Appendix II, p. 72.

ADDENDUM

Methods employed for establishing statistics in Japan

During the course of the second Session of Committee B, a summary was given by Count YANAGISAWA (Japan) of the methods employed for establishing statistics in Japan.

He pointed out that up to the present statistical enquiries into conditions of labour in Japan have been far from satisfactory. The only enquiries made have been purely local in character and carried out from time to time indirectly by local officials or by employers, and the statistics thereby obtained had been necessarily inexact and lacking in uniformity. Japanese statisticians are, however, keenly desirous that systematic enquiries should be undertaken. The Government recognising the necessity of the establishment of reliable statistics submitted to the Imperial Diet a Bill relating to this subject and the Bill was approved by the two Chambers and became Act 52 of 18 April 1922. With regard to conditions of labour, the Central Commission of Statistics had arranged for the issuing of an Imperial Order requiring that enquiries should be made into conditions of work in mines and factories, and there was reason to suppose that enquiries of the same kind would be extended in the future to the transport industry, to the building industry, to agriculture, etc. The Order provided for a Census to be dated 10 October 1923 and for subsequent periodical censuses.

Unfortunately on account of the recent catastrophe the first census has had to be postponed to October of next year.

Moreover, both the Japanese Government and the Imperial Diet had recognised the necessity of carrying out enquiries into conditions of living and the wages of the workers, for up to the present the information obtained on these various points had been far from satisfactory. An enquiry would be made next year into family budgets in different localities. The results of this enquiry when published would help, with the results of the census of conditions of work, in the solution of the labour question.

COMMITTEE C

Statistics of Industrial Accidents

The Commission on Statistics of Industrial Accidents held meetings on 30 and 31 October and 1 November. Mr. BOHREN, Deputy Director of the Swiss Accident Insurance Fund, was appointed Chairman, and Mr. SOKAL, former Director at the Ministry of Labour, Poland, was appointed Vice-Chairman and Reporter.

INTRODUCTORY STATEMENT

An introductory statement on the subject before the Committee was made by Mr. T. VOIONMAA, Technical Secretary of the Committee and Member of the Statistical Section of the International Labour Office, as follows:

"The present occasion is not the first on which the international standardisation of industrial accident statistics has been discussed. Before the war, a European Committee did a good deal of preliminary useful work, and during the last few years an American Committee has published a complete scheme of standardisation. Important advancement has been made in theory and principle, but if we examine the accident statistics as they exist to-day, we shall have no doubt of the fact that there is no more uniformity in practice than thirty or twenty years ago, and that there are considerable weaknesses in vital points in a number of statistics published. But while the necessity for the standardisation of accident statistics is to-day as evident as thirty years ago, the possibilities of reaching a favourable solution of this problem are undoubtedly greater than before. These are the reasons that have stimulated the International Labour Office to tackle the question and to bring it under renewed discussion.

"It is to be noted that the diversity of the legislative systems for dealing with accidents limits the possibilities of effective standardisation of statistics to a much greater extent than, for example, in the other two subjects before this Conference. We have assumed that any proposals which required change in the legislation of different countries would not be possible at the present time. But since it appears that the present lack of com-

parability would be overcome to some extent by agreements as to statistical methods without touching the existing legislative framework, it is hoped that within the existing legislation and administration some proposals for improvement might be acceptable.

"The first questions which arise are obviously: How an industrial accident is to be defined for purpose of statistical record, and: Is a definition possible which would be acceptable internationally? The American Committee has worked out three standard definitions, viz. one for 'reportable accidents', another for 'tabulatable accidents', and a third one for 'compensable accidents'. Unlike this Committee, we have thought that it is not to be expected that countries will alter their legislation for the purpose of international statistics. In the resolutions, therefore, we do not speak of this subject but confine ourselves to proposals relating to those accidents which are legally reportable or, at least, to those accidents which are tabulated by the competent authority. In most cases, these are accidents in respect of which compensation is paid or payable.

"Our first group of resolutions deals with the various ways in which the statistics of industrial accidents should be classified. As pointed out in the opening paragraphs of the Report, the object of industrial accident statistics requires that accidents should be classified according to the industrial establishment in which they occur, according to their cause, according to the extent and degree of disability, and according to the nature and the location of the injury. While these classifications are not to be found in all existing statistics, they represent the classifications indispensable for purposes of international comparison, and a minimum that would seem likely to be realised in present-day conditions.

"The fundamental classification is that by industries, not only for purposes of compensation and insurance, but also for purposes of prevention. As the question of Industrial Classification forms a special item on the Agenda of this Conference, the proposals made in the Report on this subject are recommended with the provision that certain sub-groupings are necessary in order that special combinations or re-groupings for showing the accident risk in certain branches of industry might be made.

"From the point of view of prevention a classification by causes is of greatest importance. It may be noted that while there is rough uniformity in leading principles in the different countries, the details, and even the definition of 'cause', differ considerably.

We do not propose a new classification of causes, but give the standard classification prepared both by the European and the American Committee as illustration. As to the definition of cause, it is a problem that leads to questions of psychology, and even metaphysics, and therefore we suggest the definition, that where the cause of an accident is doubtful or is due to more than one factor, the accident shall be classified to that material circumstance which is most easily prevented.

"The proposals relating to the classification according to extent and degree of disability are of a more positive character. The first necessary classification of accidents is that into fatal and non-fatal, which distinction is made in all statistics. For studying the accident risk, and for adequate international comparisons, it is highly desirable that non-fatal accidents should be classified according to whether the incapacity be total or partial, or of a permanent or temporary nature. The proposed classification of temporary disabilities by their duration is important with a view to counterbalancing the difficulties arising from the differences in 'waiting periods' (*périodes de carence*). Finally, the proposed standard classification of partial disabilities by their degree is of importance with a view to computing accident-rates. As the suggested classifications submitted depend generally on the definition of the various kinds of accidents, and not on the accident insurance and compensation legislation, we hope that some agreement will prove possible.

"A small point which is not mentioned in the Resolutions, but which I should like to mention here, is that of fatal accidents. As regards instantaneously fatal accidents there is no difficulty, but very often death takes place at a greater or lesser interval after the occurrence of the accident, and the length of this time determines whether the accident is assumed as being fatal or not. It would be highly desirable if some agreement could be reached on this subject, if such agreement would not involve the amendment of existing legislation.

"Classifications of accidents by location and by nature of injury are of less importance, but it is very desirable for the administration of accident insurance and prevention that such classifications should be given. The chief feature of our resolutions is that the two classifications should not be confused as is frequently done, but that the location of an injury (the parts of the body) should be clearly distinguished from the nature of the injury.

"The second group of resolutions deals with purely statistical

methods to be applied to the figure available. For purposes of international and of national comparisons a standard method of comparing the accident risk is highly desirable. It is on this subject that the most positive results are likely to be achieved, as the resolution is independent of the different legislation systems in force.

"The first resolution proposes that the 'accident exposure', i. e. the time during which the workers are exposed to accidents, should be calculated according to uniform methods. We believe that it would be most convenient to express the accident exposure in terms of 'full-time workers', which takes account of the number of days worked by the workers. As the hours of work vary from day to day, it would of course be more desirable to have a record of the total hours worked. Where this is possible, the accident exposure should of course be expressed in terms of working hours; but as detailed information is not often available as to the hours worked, the 'accident exposure' must in most cases be confined to an expression of the number of full-time workers each working 300 days per annum. By adopting the full-time worker as basis, accident rates can then be expressed in terms of the same unit, and we shall be enabled to compare like things.

"The simplest and most usual way to express the degree of accident risk is by the frequency rate. It has, however, been long ago recognised that this rate does not give an adequate measure of accident risk, since all accidents are taken as of equal weight; a slight accident is counted the same as a fatality. Therefore, many earlier accident statistics have used the so-called compensation cost rate. But as mentioned in our report, this rate is dependent on different legislative systems, and is thus not appropriate for international comparisons of accident risk. We therefore propose in the last of our resolutions that a further measure of the accident risk be given in which each accident shall be measured according to the actual time lost by reason of the accident. This rate, to which the name severity rate has been given is, so far as we know, only used by a few of the American States and by one country in Europe. There are undoubtedly difficulties in the way of calculating uniform severity rates, which we have indicated in our Report, and to some extent these are due to the legal or administrative systems in force. But on the other hand, as severity rates are not yet in general use, the field is open, and we suggest that a special committee might be appointed to consider a standard scale of 'weights' which would express the loss in working days due to

death or permanent total disability. We believe that if the accident risk were measured both by frequency rates and severity rates, a considerable technical improvement would be secured and international comparisons facilitated.

"These are the substance of the resolutions put before you to-day. Before concluding, I should like to indicate one or two special points which might be dealt with in the general discussion. The first point is that statistics of industrial accidents, unlike most other labour statistics such as wages, prices, etc., depend almost entirely on the legislation in force in the different countries, and this limits considerably the sphere of standardisation. It is for the Committee to discuss to what extent it might be possible or desirable to consider improvements or standardisations involving possible changes in the accident legislation. The second point is whether it is possible to arrive at an agreed definition of the different classes of accidents — fatal and non-fatal; permanent and temporary; total and partial disability — and in particular to inquire whether an agreed definition of what is a fatal accident can be arrived at. The third point, finally, relates to the introduction of a new measure of the accident rate, viz. the severity rate. All the other points refer rather to details and might be dealt with separately after an agreement has been reached on general lines.

"The idea underlying all our draft resolutions has been to define a general minimum, the acceptance of which would render the future international comparisons possible, as well as give rise to an improvement in a number of statistical methods employed at present. It is with the hope that the leading ideas of our draft resolutions will be found, not only necessary, but also possible of application in practice, that we submit our Report on standardisation of Industrial Accident Statistics for favour of examination by your Committee."

DRAFT RESOLUTION

I. Industrial accidents, or at least all those which are compensable, should be classified according to the industry of the injured worker, the cause of accident, the extent and degree of disability, the location of the injury and the nature thereof.

(a) *Industries.* The general scheme given in the Report on Systems of Classification of Industries and Occupations is recommended with such subdivisions as will allow special consideration to be given to industries with a relatively high accident rate.

(b) *Causes.* In case of doubt, the accident shall be charged to that conditional circumstance which is the most easily prevented.

(c) *Extent and Degree of Disability.* Accidents should be classified into fatal and non-fatal; permanent and temporary disability; and total and partial disability. Temporary disabilities should be classed according to duration, and uniformity might be obtained by using the following groups: (i) one week or less, (ii) over one and up to two weeks, (iii) over two and up to four weeks, (iv) over four and up to six weeks, (v) over six and up to thirteen weeks, (vi) over thirteen weeks and up to six months, (vii) six-monthly groups up to three years.

Partial disabilities should be classed by degree, and uniformity might be obtained by using the following groups: (i) under 20 per cent., (ii) 20 and under 40 per cent., (iii) 40 and under 60 per cent., (iv) 60 and under 80 per cent., (v) 80 and under 100 per cent.

(d) *Location of Injury* should be clearly distinguished from nature of injury. The most suitable classification is that of the common anatomical divisions of the body, viz. (i) head; (ii) face and neck; (iii) trunk; (iv) upper extremities; and (v) lower extremities. Each of these groups may be subdivided if necessary.

(e) *Nature of Injury* might be classified according to the standard scheme of the American Committee, as follows: (i) Bruises, contusions and abrasions, (ii) Burns and scalds, (iii) Concussions, (iv) Cuts and lacerations, (v) Punctures, (vi) Amputations, (vii) Dislocations, (viii) Fractures, (ix) Sprains and strains, (x) Asphyxiation, (xi) Drowning (xii) Other injuries.

II. For industrial and international comparisons, the accident exposure should be computed according to uniform principles, and the accident risk should be calculated both in terms of frequency and severity of accidents.

(a) *Accident Exposure*, i.e. the number of persons exposed to the risk of accidents, should be expressed in terms of "full-time workers". The full-time worker should be defined as one who works 300 full working days (or shifts) per annum. Where hours of work are available for record, the accident exposure may also be expressed in terms of 1,000 (1,000,000) hours of working time.

(b) *Frequency Rates.* The frequency of accidents should be expressed in terms of the number of accidents per 100 (1,000) full-time workers, or 100,000 (1,000,000) hours of exposure.

(c) *Severity Rates.* The severity of accidents should be expressed in terms of working days lost per full-time worker, or 1,000 hours of exposure. It is recommended that a special committee be appointed for the preparation, for statistical purposes, of a standard scale of working days lost to be allocated to cases of death and permanent disability.

GENERAL DISCUSSION

Mr. BOHREN suggested that the Committee should proceed to discuss the Technical Report of the International Labour Office chapter by chapter, and not confine itself to the draft resolutions. The general feeling of the Committee, however, was that in view

of the limited time available it would be preferable to take first the resolutions as basis for discussion.

The first resolution related to the scope of industrial accident statistics. Mr. BOHREN pointed out that it was impossible to give a definition of industrial accidents, as the definition depended on the legislation which differed considerably in various countries and he thought it advisable to confine the scope of this resolution to those cases of accidents for which compensation was payable. Mr. PUGE (France) and Mr. MANNIO (Finland) supported this suggestion but it was opposed by Mr. BELLHOUSE (United Kingdom), Mr. SOKAL (Poland), Mr. BOULIN (France) and Mr. CLOW (India). Mr. BELLHOUSE and Mr. SOKAL pointed out that in some countries there was no central insurance system and it would be impossible to confine the statistics to those compensable under some insurance legislation. In addition, Mr. Bellhouse pointed out that the objects of industrial accident statistics were not only to provide a measure of the accident risk for the purposes of insurance compensation schemes, but also to provide a means for preventing their recurrence. All industrial accidents which were brought to the notice of the administrative authority therefore should be included. The President of the Conference (Mr. JULIN) pointed out that the problems before the Committee differed from those before the other two Committees in that it was dominated by the existence or non-existence of legislative measures relating to accidents and suggested that the difficulty before the Committee might be got over by framing the resolution so that countries with compulsory insurance schemes would be invited to classify compensable industrial accidents and other countries notifiable accidents. Mr. CLOW suggested a further compromise by the omission after the words "industrial accidents" of the phrase "or at least those which are compensable". By the omission of these words Governments would remain free to adopt the methods they considered preferable in establishing statistics. This proposal was adopted, it being understood that a resolution would be introduced at a later stage inviting Governments to indicate in their statistical publications the exact scope of their statistics.

The second resolution related to the industrial groupings which should be adopted in the classification of accidents. The resolution submitted recommended that the general scheme given in the *Report on the Classification of Industries and Occupations* should be adopted with certain adaptations permitting the high accident rate in certain branches of industries and certain processes to be

shown. Some discussion of the wording of this resolution took place, but on Mr. GUICHOT (Spain) pointing out that the wording adopted would be dependent on the work of the Committee on Classification of Industries and Occupations, the Committee adopted the resolution as submitted.

The Committee then proceeded to the discussion of the question of classifying industries according to their causes. The technical report presented by the Office had pointed out that, in spite of the difficulty of defining exactly what was the cause of an accident, existing classifications were to some extent uniform. No classification was submitted, the resolution limiting itself to the doubtful cases which it suggested should be charged "to that conditional circumstance which is most easily prevented". Mr. CLOW, supported by Mr. Sokal, found this wording unsatisfactory and suggested that the last phrase should read "which is the immediate objective cause". Mr. BELLHOUSE suggested that it was insufficient to deal simply with the definition of the cause. The Committee should suggest general broad headings by which the cause of industrial accidents should be classified. As it would be difficult to draw up such a table in full Committee he proposed a small sub-committee for the purpose. The Committee accepted this proposal and a sub-committee consisting of two factory inspectors (Mr. Bellhouse and Mr. Boulin) and two statisticians (Mr. Guichot and Mr. Puge) was appointed, and drew up a general scheme of classification by causes. The sub-committee, after consideration of the groupings already in force by the chief industrial countries and of the scheme proposed by the International Association of Industrial Accident Boards (U.S.A.), proposed a classification under thirteen main headings. Accidents caused by machinery, which are shown in all classifications and are the most important class of accidents, formed the first group; accidents not due to machinery were grouped into Transport, Explosions, Falls, etc.⁽¹⁾. The scheme of the sub-committee was adopted without discussion.

The question of classification of accidents according to the extent and degree of disability, which was discussed by the Committee at its second meeting, clearly showed that the methods of establishing these terms were so different in the various countries that only very general schemes could be made. As was pointed

¹ See Appendix II, p. 74.

out by Mr. BOULIN, satisfactory statistics of this nature could not be obtained on the basis of notified accidents, as at the time of notification neither extent nor degree could be precisely determined. As regards the extent of disability, i. e. the time during which the injured worker is incapacitated, some discussion took place as to how far slight accidents should be taken into account. In the draft resolution submitted by the Office it was proposed that all accidents which lasted for one week or less should be grouped together. Mr. BOHREN considered this gave too narrow a basis and that all the slight accidents of this nature should not be taken into account in the statistics. Mr. Boulin and Mr. Guichot supported this proposal. Mr. LORANGE (Norway) thought that such accidents should be retained as, though they were of little importance from the point of view of degree of injury they were of frequent occurrence. Mr. BELLHOUSE suggested that the first group should cover all accidents lasting two weeks or less, which was adopted by 7 votes to 4. For accidents lasting over two weeks a grouping was adopted differing but slightly from that submitted.

As regards the degree of disability, i.e. the amount by which the workers' earning capacity has been reduced, the Committee realised at once the enormous difficulty, if not impossibility, of any international standardisation owing to the different legislative and administrative practices adopted by the different countries. In Switzerland, as pointed out by Mr. BOHREN, the degree of disability is not determined until after the conclusion of the medical treatment; in other countries it is determined after the lapse of a certain period fixed by law; in Sweden, again, a provisional estimate is made at the conclusion of medical treatment and a final determination is made after a lapse of three years. Mr. CLOW, supported by Mr. Puge and Mr. Bellhouse, proposed that no distinction be made between total and partial disabilities in the case of temporary disabilities in view of the fact that such distinctions depend upon the time at which the determination is made. A worker is frequently totally disabled as a result of an accident but after a time his condition improves and he remains partially disabled or is even completely restored. Accidents would thus be classified, according to degree of disability, into temporary and permanent disabilities. The former would be grouped according to the duration of disability in accordance with the scale already adopted by the Committee, the latter would be grouped according to degree of incapacity. The difficulty still remained, however, as to the period at which

the degree of incapacity should be estimated. Mr. PUGE suggested that this should be determined at the time of the first estimation, or that of conclusion of medical treatment. Mr. VOIONMAA, the technical secretary, reminded the Committee of the Recommendation of the International Statistical Institute that a period of three years should be adopted as the time after which a final determination should be made, and a formal amendment was proposed by Mr. PUGE to add that disabilities should be classified at the time their results became permanent, a second classification being made if possible three years later. The Committee, however, felt it was unable to adopt the latter phrase and limited itself to the first part, which was adopted in the following form: "Permanent disabilities should be classified at the time they are recognised as such".

The final classification considered by the Committee related to nature and location of the injury. The Committee agreed that a clear distinction should be made between these two classifications, which were frequently confused, the latter referring solely to the parts of the body injured, but did not agree as to their importance from the point of view of international comparison. Mr. BOULIN was of the opinion that for the purposes of factory inspection statistics showing the location of injury were of great importance, while Mr. BOHREN, Mr. FOWLER (South Africa) and Mr. BELLHOUSE considered such statistics valueless. In Switzerland, Mr. Bohren stated, experience had shown that these statistics did not serve any useful purpose in the prevention of accidents, while in the United Kingdom, as Mr. Bellhouse pointed out, no such classification existed for factory accidents. Mr. FOWLER moved and Mr. BELLHOUSE supported the omission of the resolution (d) concerning the classification by location, but the Committee by a majority adopted, with slight amendment, the brief classifications submitted in the draft resolutions.

At the outset of its work the Committee, impressed with the differences in accident legislation, invited one of its members (Mr. Puge) to submit a text recommending that all statistics of industrial accidents should be preceded by a short note indicating the scope of the legislation, the nature of the accidents covered and other relevant information necessary for understanding the statistics. This resolution was submitted at the end of the second meeting and it was decided to place it at the end of the group of resolutions relating to the classification of industrial accidents, the discussion of which had just been terminated.

At its third sitting on 31 October, at which the Chair was taken by Mr. SOKAL, the Committee commenced the consideration of a somewhat different series of resolutions relating not to the presentation and classification of accident statistics, but to the methods of measuring the accident risk in different industries or in different countries. The resolutions submitted to the Committee recommended that the accident risk should be calculated both in terms of the frequency of accidents and in terms of the time lost by victims of accidents (severity rate) and that in both cases the unit of measurement should be the period of working time during which the workers were exposed to the risk of accident. A third rate, known as the compensation cost rate, which expresses the amount of compensation in terms of wages paid, has been used in many countries, but in view of the difference in the legislation of different countries it was not considered possible to submit a resolution recommending this rate for international purposes. This omission of any reference to the compensation cost rate was the first point of discussion. Mr. BOHREN was of opinion that the rate was of great value for international comparison as it provided a measure of the benefit given and the burdens borne in the various countries, and only by it could the relative progress made in the matter of social legislation be established. Mr. CLOW, Mr. LABRIOLA (Italy), and Mr. VOIONMAA strongly maintained the opposite thesis. The fact that it was based on wages and on the varying amounts of compensation paid in the different countries made it misleading and dangerous; it had been found inadequate in many countries, e.g. Austria, Germany, and Sweden, which had used it. Mr. BOHREN explained that in his view the compensation cost rate would enable the progress made in matters of social insurance in different countries to be compared. It would provide less advanced countries with information which would enable them to improve their social legislation and to calculate the expenditure involved in such legislation. It was, however, finally agreed not to include the compensation cost rate into the minimum scheme of standardization.

After further discussion Mr. SOKAL proposed that the Committee consider the first question of accident exposure. While the Committee was of opinion that in principle, the total number of hours of working time should be used as basis, yet it was realised that in many cases it was possible to obtain this data. The system in some countries is based on the number of full-time workers, i. e. a worker who works 300 days per year for 10 hours a day (i. e. 3,000 hours per year) or 8 hours per day (i. e. 2,400 hours per year),

or in some cases without any regard to the number of hours worked. Mr. BOHREN, supported by Mr. Voionmaa, was of opinion that the full-time worker should be taken as one who works 300 days a year, 8 hours a day, but this was objected to by Mr. Puge, Mr. Clow and others on the ground that this appeared to endorse the 8-hour day. Mr. BELLHOUSE emphasised the fact that any estimates of hours worked were bound to be unsatisfactory and incomplete, and that the "average number of workers employed" during the course of the year would have to be accepted in many cases. Finally, a compromise was adopted in the form of an amendment proposed by M. PUGE to the effect that "where practical difficulties prevent the calculation of the number of hours of working time this number should be replaced by the number of full-time workers (i. e. the number of working days divided by 300) or the average number of workers, as may be best suited to the economic and social needs of the country or industry concerned".

Passing to the question of frequency and severity rates, the Committee accepted without discussion frequency and severity rates as the principal measures of the accident risk. As regards 'severity rates' it was decided that it was unnecessary to appoint a special Committee, as recommended in the resolution submitted, to prepare a standard scale of working days lost to be allocated to cases of death and permanent disability. Mr. Clow, Mr. Labriola and Mr. Bohren were of opinion that the matter should be left to the International Labour Office for further study.

This concluded the discussion of the resolutions, and at its fourth sitting the Committee discussed the form of its Report, appointed Mr. Sokal Reporter, and appointed a Drafting Committee for the purpose of co-ordinating and unifying the various resolutions in English and French. At the final meeting on 1 November the Report of Mr. Sokal was unanimously adopted.

Before dispersing, the attention of the Committee was drawn by Mr. PUGE to the importance of drawing up tables showing mortality of victims of industrial accidents. This information is necessary for the awarding of pensions and the fixing of capital reserves. He submitted a recommendation inviting countries to furnish the necessary information to the International Labour Office. It was pointed out, however, that in some countries compensation is not paid in the form of pensions but of a capital sum, and a phrase was introduced making it clear that the recommendation only applied to countries in which compensation is invariably paid in the form of pension. With this addition the recommendation was unanimously adopted.

REPORT PRESENTED BY THE REPORTER OF COMMITTEE C

"The Committee held five meetings from 30 October to 1 November. As a basis for its discussions the Committee adopted the draft resolutions prepared by the International Labour Office.

"The Committee agreed that statistics of industrial accidents should be drawn up with the object of obtaining exact information, securing first an analysis of the nature and causes of accidents with a view to their prevention, and secondly a measure of the accident risks with a view to facilitating the application of compensation and insurance schemes. It surveyed the theoretical and practical points raised by the compilation of these statistics in an endeavour to define the conditions under which they could be rendered uniform and comparable.

"The Committee considered the possibility of drawing up recommendations which involved amendments to national legislation on accident insurance and workmen's compensation. It came to the conclusion that at present it was not possible to adopt recommendations involving amendments of this kind, particularly as regards the definition of the term 'industrial accident'. It considered, however, that by agreement on statistical methods uniformity could be gradually attained without the introduction of any immediate changes in existing legislation.

"The following were the principal points considered by the Committee:

"In the course of the discussion on the classification of accidents according to their causes, the Committee decided that it would be desirable to draw up a small table in order to make the international comparison of statistics easier by adopting a uniform basis. A Sub-Committee consisting of Mr. Bellhouse (Chairman), Mr. Boulin, Mr. Guichot and Mr. Puge was appointed to draw up the table, which was approved by the Committee and inserted in the resolution given below.

"The discussion on the classification of accidents according to the extent and degree of disability clearly showed that if practical results were to be obtained, it was necessary to avoid excessive detail. Due weight was given to this consideration in the classification adopted by the Committee.

"With the object of facilitating the examination of national statistics and of their comparison, the Committee adopted a re-

commendation requesting Governments to give in the statistics published by them an indication of the legislative provisions on which the statistics are based. This recommendation was included in the resolution in the form of a note.

"The Committee gave careful consideration to the question of accident exposure and rates of accident risk. It considered that in principle accident exposure could best be measured on the basis of the number of hours worked. In cases where there were practical difficulties hindering the adoption of this method, other methods based on the number of days worked or the average number of workers covered might be used.

"The Committee was of opinion that the frequency rate was not a sufficient measure of the risk of accident, and that the severity rate should also be taken into account.

"Finally, the Committee added to the Resolutions a recommendation concerning the mortality-rate of victims of industrial accidents."

ADDENDUM

The discussion by the Committee of the statistics of industrial accidents seems to indicate that it would have been very useful to have adopted a different method of procedure similar to that followed by the Committee on Statistics of Wages and Hours of Labour. In both cases the resolutions submitted constituted a 'minimum programme' but the Committee on Wages adopted in addition a maximum or ideal programme which it was realised was not immediately attainable but should constitute the aim which the statistics should endeavour to reach. A similar programme as regards accident statistics would also have been very desirable.

The first condition of such a programme would be a uniform industrial classification. As, however, the Committee on Classification of Industries and Occupations postponed the discussion of an industrial classification (other than that of the main groups and services) it is impossible to suggest a list of industries at the present moment. The existing classifications, however, in most countries are fairly similar, and for at least the most important industrial branches comparisons can be made.

Owing, however, to the different methods of reporting, the different legal provisions regarding compensation and waiting

periods (*périodes de carence*), the large number of minor accidents which occur in all industries are very differently represented in the statistics and cannot be compared accurately. It is therefore suggested that all accidents causing disability or absence from work of less than one week be eliminated from the statistics. The remaining accidents should be classified within each industry according to their causes and according to their results. The classification by causes adopted by the Committee is probably sufficient. The classification by results should be, of course, into fatal and non-fatal, temporary and permanent incapacities, as is outlined by the Committee. Temporary disabilities including all those where the disability lasted more than one week, should be classified according to duration of incapacity. Permanent disabilities similarly should exclude all minor cases (e. g. those where the incapacity is less than 10 per cent.) in view of the fact that the treatment of these cases greatly differs from one country to another. A further difficulty, however, concerning permanent disabilities is that the fixing of the amount of disability occurs at different times in different countries. If a definite period were fixed in different countries, e. g. 3 years, a comparison of 'severity rates' would be rendered possible internationally. If countries, further, adopted the accident exposure of 100,000 hours of labour instead of the 'full-time worker' a further step towards international comparisons would be made.

In these directions then, it is advisable that the statistics of industrial accidents should be developed in order that a true international standardisation might be reached.

CLOSING SESSION OF THE CONFERENCE

The Conference resumed its plenary sittings on Friday morning, 2 November, for the purpose of discussing the Reports of the three Committees.

Mr. SOKAL, Reporter and Vice-Chairman of the Committee on Industrial Accident Statistics, read the Report and Resolutions of this Committee. The only point on which the resolutions were amended was the paragraph relating to the classification of industrial accidents by industry. The Committee, it will be remembered, did not discuss this subject, considering that it came within the competence of the Committee on Classification of Industries and Occupations, and passed a resolution referring to "the general scheme (of classification) given in the *Report on Systems of Classification of Industries and Occupations*". As this Committee had not adopted any classification of industries and occupations but had merely proposed that a list (unclassified) of industries should be prepared, the resolution of the Committee on Industrial Accidents was amended by referring to the resolution of the Classification Committee. The Report, Resolutions and Recommendations were then adopted unanimously.

Mr. HUBER, Chairman and Reporter of the Committee on Statistics of Wages and Hours of Labour, submitted his Report and Resolutions. They were adopted with two minor amendments. In Resolution 3, referring to "data supplied by representative employers", M. Bramsnaes thought the word 'establishments' more suitable than 'employers'. Mr. Hilton proposed 'employers and establishments', which was agreed to. In Resolution 5, the word 'establishments' was substituted for the word 'employers'.

Before passing to the consideration of the Report of the remaining Committee, Mr. HILTON called attention to the fact that the British Ministry of Labour has recently commenced an enquiry in regard to wages and the prices of foodstuffs in about sixteen of the chief capital cities. This information had been collected in order to enable calculations to be made as to the difference in the level of real wages in the various countries. He considered that, in view of its international character, work of this kind would be more appropriately left to the International Labour Office, and he hoped that it would be prepared to take over this enquiry and that the countries which had supplied information

to the British Ministry of Labour would forward still more complete information of the same kind to the International Labour Office. To this end he submitted a resolution ⁽¹⁾, which was adopted without discussion.

The Conference then passed to the Report of the Committee on Classification presented by Mr. Hilton, which was unanimously adopted without discussion.

The Reports of the three Committees having been adopted, the President formally transmitted them to the Director. He considered that although the Conference was not so rash as to believe that it had completely settled the questions submitted to it, it could nevertheless regard its work with satisfaction, as it had accomplished considerable progress in the matters it had considered and had reached conclusions of no little value. The Director, in reply, congratulated the Conference and the Secretariat on the work accomplished, and promised to give the recommendations his strong support when they were discussed by the Governing Body. The Conference terminated with a vote of thanks to the President for the admirable way in which he had fulfilled his functions.

⁽¹⁾ For the text of this resolution see Appendix II, p. 73.

APPENDIX I

Opening Address by Mr. Armand Julin, President of the Conference

It is not surprising that there be held at Geneva, at the seat of the International Labour Office, a Conference of Labour Statisticians. It can in truth be said that social legislation demands in advance a methodical investigation into the conditions of the workers. Before the legal measures of a nature to improve these conditions can be laid down, logic demands that in the first place the ground on which advance is to be made shall be thoroughly explored. To neglect this essential precaution would be to court a decisive failure. It is through statistics that light must be thrown on the road to be followed. We believe that statistics form an indispensable scientific method for learning the complex phenomena which are common to all the human race. In what sphere of life are such phenomena more complex than in that connected with social affairs ?

This necessity was realised early by the States which were desirous of social progress. The origin of labour statistics can be fixed in England to the times of Owen, in France to those after the Revolution of 1848, while in Belgium my illustrious fellow-countrymen, Quetelet, published in 1846, at the time of the general industrial census of that year (at the same time as the general population and agricultural census), the first general summary of wages made in Europe and probably the first made anywhere in the world.

Since that time the enquiries made have become more frequent. Increasingly numerous offices have been set up and provided with continually improving means of work. More and more detailed and exact publications have succeeded one another. More perfected methods have constantly been put into practice. Perhaps I may here be allowed to survey rapidly the general methods followed in the drawing up of labour statistics. In the first place, it would be necessary to reserve a special place for monographical studies which must not be confounded with methods of mass census either by the method adopted or by the accuracy attained.

Statistical methods are suited for the observation of collective phenomena by which variable facts are studied so as to give in the end an idea as to the normal character of the individual facts. They take into account collective facts regarded as a whole. The object of the monographical studies is not the same, and, instead of studying mass phenomena, it confines its attention to the examination of one strictly limited fact. Furthermore, in the monographical studies it is impossible to apply the mathematical methods of statistics with the object of

ascertaining general results, because the use of these methods presupposes the existence of a considerable number of facts, whereas only one or a small number are taken into account in monographical studies.

To refuse to recognise the monographical system as possessing the same character as statistical investigations is not to diminish the value of this system. Its sole result is to limit the use of this system to particular cases; in others recourse must be had to the investigation and analysis of collective phenomena by employing for this purpose the methods of census or at least those of enquiry. To take a census is the means by which direct information can be obtained with regard to all units, i. e. all the component parts of one complex general whole are examined one by one, estimated, and counted. The typical type of direct statistical method is the census by which a given social fact is submitted to observation and its various manifestations in their collective aspect are brought to light and estimated individually. For example, in a census of a population all the inhabitants of a given country are, at one given moment, counted, while at the same time in the case of each inhabitant, information is obtained as to the facts of age, sex, civil status, nationality, and occupation. However, labour statistics are rarely based on the direct statistical method, the reason being that such enquiries are always non-periodical. By reason of the considerable expense involved in those extensive operations, their very recurrence excludes the possibility of taking a census of the total units. In the case of labour statistics the favourite method is rather the indirect statistical method by which, a certain number of facts being determined, an effort is made to comprehend the general phenomenon by the analysis of a limited number of its manifestations, those of which statisticians obtain knowledge being considered as representative of the whole.

Mr. Carroll D. Wright, and all the authors after him who have dealt with the question, group the methods in the three following classes: (1) sending out of circulars or questionnaires, (2) official enquiries, (3) investigations carried out by special agents.

The first method is the one most commonly in use. The questionnaires have been compared to so many soundings which furnish the investigator with information from the study of which a general view of the phenomena may be obtained. The most difficult part of the work is to sort out the information in such a way as to give an exact idea of the facts considered *en masse*. Moreover, there is another difficulty, viz. in voluntarily obtaining the thousands of replies solicited from persons who are not normally accustomed to take an interest in things scientific. As a general rule, the results obtained are scarcely encouraging. In a recent enquiry made in Belgium into the conditions of employees, for example, the proportion of the forms of which use could be made was hardly more than 50 per cent. of the total number returned. A similar proportion was secured by Professor Mayo Smith in 1886 in enquiries of the same type undertaken by the American Labour Bureau.

Instead of circulating the questionnaires to persons selected in accordance with more or less established rules, an endeavour has sometimes been made to mobilise a sort of army of voluntary correspondents. The workers' trade unions and the employers' organisations are the

most suitable agents in this connection. They are generally willing to undertake the work required, but the information which they furnish can only be made use of after a very close scrutiny. Nevertheless, it would seem that, in enquiries carried out by means of questionnaires, it is necessary to consult the employers' and workers' organisations in order to supplement investigations undertaken individually.

In nearly all countries official enquiries have been undertaken in order to elucidate certain economic problems. A number of witnesses directly invited or presenting themselves voluntarily before the enquiry officers furnish information on one or more questions contained in a questionnaire previously prepared. There are good enquiries of this kind, but the bad perhaps exceed the good in number. Whatever may be thought of their value and their effectiveness, it is impossible to consider that these enquiries constitute a real statistical instrument. The enormous proportion of confused and contradictory information which they elicit, the absence of any means of controlling or verifying this information, and the partiality of some of the opinions expressed — all this, it would appear, precludes these enquiries from being considered as a good means of scientific information.

The same observations cannot be made, however, regarding the method of entrusting special agents belonging to the statistical office with the work of collecting the desired information under the statistical office's direction and control. Under this system information is collected by duly qualified agents, there is a single directing headquarters, the proportion of replies secured is high and the value of the material furnished is such that it is seldom necessary to undertake supplementary investigations.

The use of this method has been objected to on the grounds of the expense which it involves.

It is probably from an anxiety to avoid this criticism that attempts have been made in several instances to convert administrative officials into 'special statistical agents'. An endeavour has been made, for example, to employ factory inspectors for the collection of statistics. The work of the factory inspector, however, is in itself very heavy and it would seem useless to complicate it further. Moreover, how is the inspector to adopt two different attitudes towards the employer, one day addressing him as an official clothed with authority and power to enforce the provisions of the law which is his principal duty, and the next day perhaps appealing to his goodwill in order to obtain from him the statistical information required.

The International Labour Conference has just decided against the addition of any accessory work to the principal duties of the factory inspectorate. Whatever may be the method employed, whether questionnaires are sent out or special agents collect the necessary information, investigations which do not cover an entire field of statistics are of value in proportion to their representative character. To arrive at the real facts by means of investigations which must necessarily be limited, such is the problem which arises in any social enquiry: it is one of the most difficult problems in statistics. Its very complexity makes it difficult to draw up the rules to be followed in each particular case.

Only a very careful study, based on general economic conditions, can furnish the means of solving this problem.

At its third session held at Vienna in 1891 the International Statistical Institute decided, on the report of Mr. Bohmert and Mr. Cheysson, that, in order to establish proper wages statistics, it is necessary to ascertain the actual wages paid to each worker and that, in view of the difficulty of carrying out the investigations required for this purpose in each and all of the industrial establishments in a country, it was desirable to undertake them for particular establishments taken as types. Mr. Cheysson said: "It is preferable to have quality rather than quantity in the information collected on this special question. Such statistics gain by depth rather than breadth".

The difficulty, however, is to settle the criteria by which these particular establishments are to be selected. In practice an endeavour will probably be made to ascertain the wages in one selected industry, and limitation of the field of investigation will eliminate a certain number of the greatest difficulties. In order to obtain a clear picture of the facts, it will be agreed that it is necessary first of all that the investigations should deal with absolutely homogeneous groups. As Professor Mayo Smith said, "to include in wage statistics men who only gain a part of their livelihood, men who are temporarily employed, the infirm and feeble whose work is only relatively useful, tramps and vagabonds who call themselves workers but live outside the community, would be to vitiate labour statistics". It would be like including in price statistics not only wholesale prices current in the public markets, but also the prices of any little retail transactions at involuntary sales, for example, and in small country markets. It is not sufficient that the wages quoted should be the wages of regular workers belonging permanently to the industry; it is necessary, to ensure that the enquiry has a representative character, that the establishments in which the enquiries are made should be chosen according to strict rules. It is well known that wide differences in rates of wages are found in manual workshops and machine workshops; in order to have an exact idea of the rate of wages, enquiries must be made into both kinds of establishments. Similarly, in the smaller centres and rural districts where the necessities of life are fewer, the rate of wages is frequently lower than in the large towns; it is therefore desirable, in order to arrive at a correct estimate, to include typical cases in small as well as in large communities. It may also be questioned whether large undertakings do not pay their employees better than smaller establishments which have to contend, more or less successfully, with the ever increasing competition of concerns having considerable capital at their disposal, and the conclusion reached in practice is that enquiries must be made at the same time into large and small undertakings.

Time is short, Gentlemen, and we shall have time in Committee to discuss the questions of method appropriate to each of the items on our Agenda. Our work must above all be approached from a practical point of view. What is the best way of conducting an international enquiry so as to enable accurate comparisons to be made between national statistics? What are the most important points towards

which this enquiry must first of all be directed ? It is desirable to emphasise this point of view in order to avoid any misunderstanding and to distinguish our work from that proper to other organisations, in particular, the International Statistical Institute. In accordance with the wish of its founders, who created it at London in 1885, the International Statistical Institute has no official character, and has never desired to be more than a free association, recruiting its members by co-option and regulating its work in complete liberty. The purpose of the International Statistical Institute is scientific. This characteristic of the Institute was again recognised recently by the League of Nations when the latter organisation instructed the Institute to examine from a scientific point of view proposals prepared by a special Commission on the co-ordination of economic statistics.

The work of the Statistical Section of the International Labour Office is of an entirely different character. According to the statement of its eminent Director, Mr. Albert Thomas, "One of the most important tasks of this Section will be to propose uniform methods and models with a view to the co-ordination, unification, and standardisation of statistics relating to labour". This is the work in the preparation of which we are called to-day to assist. We are not ignorant of the difficulties in front of us. We are all aware that statistics are dealt with by many branches of administration of which it would be hopeless to expect complete uniformity even in the remote future. For this reason, and, I must add, on account of national and individual amour-propre, the road which we have to traverse is strewn with obstacles which we cannot afford to neglect. Nevertheless, if it is hoped one day to make international comparisons, the sole method consists in agreeing on new formulae. It might perhaps be possible to append to national statistics a summary based on international classifications and methods. The advantage of this system would lie in leaving countries free to retain the methods to which they are accustomed, while placing no obstacle in the way of ensuring that their statistics shall be comparable in course of time.

It is in this international spirit and along these scientific lines, Gentlemen, that I ask you to study the extensive programme before us.

APPENDIX II

Texts of Resolutions adopted by the Conference.

I. CLASSIFICATION OF INDUSTRIES AND OCCUPATIONS

1. Occupied persons should be classified in the first instance according to the industry in which they are employed, and within each industry they may be further classified according to their individual occupations. When it is not possible to give this double classification in sufficient detail to show the total number of workers in each individual typical occupation, it is necessary to make a second classification of all occupied persons according to their individual occupations, so that for comparative purposes two separate classifications will be available, (a) by industry and (b) by individual occupation.

2. Industries should be classified into the following main divisions:

A. *Primary Production*

Agriculture, pasturing, forestry, hunting, fishing, etc.
Mining, quarrying, etc., i. e. extraction of minerals.

B. *Secondary Production*

Manufacturing industries, etc., i. e. the transformation or modifications of materials, together with the construction of buildings, roads, etc., and the repair of finished products.

C. *Services*

Transport and Communication.
Commerce, Finance, and Trade.
Public Administration and Defence.
Professional Services.
Domestic Service and personal services for which remuneration is paid.
Supply of 'board and lodging'.

3. In classifying manufacturing industries the establishment considered as a technical unit should be taken as basis.

4. In the absence of an agreed classification of industries and as a preparation for such a classification, and in order to facilitate international comparison, the groupings of industries used in the different countries should be so sub-divided that it would always be possible to secure separate information concerning an adequately complete number

of industries included in a provisional list drawn up in alphabetical order which might be prepared by the International Labour Office after consultation with any statistical services or organisations which might usefully assist in this work.

5. It is desirable for purposes of international comparison that each country should publish definitions of the occupational, industrial, and other terms most commonly used in that country in connection with its labour statistics.

II. STATISTICS OF WAGES AND HOURS OF LABOUR

Detailed statistics of rates of wages, of actual earnings, and of normal and actual hours of labour should be collected and published in each country as frequently as possible, account being taken of the special circumstances and conditions obtaining in each case. With a view to facilitating international comparisons, the responsible authorities in each country should, so far as practicable, observe the following principles:

(1) At regular intervals, and at least once a year, there should be published:

- (a) statutory minimum rates;
- (b) rates fixed in collective agreements;
- (c) rates accepted by organisations of employers and workpeople for typical categories of workers.

(2) In order to provide an indication of the general course of wage movements, information should be published at more frequent intervals as to the nature and amount of any changes resulting from alterations in the statutory minimum rates or arranged between organisations of employers and workpeople. Particulars should be given of changes in the normal hours of labour and of alterations in the level of piece-work rates.

(3) At regular intervals, not less than once a year, average actual earnings and actual hours of labour during a year or a typical period in a year should be given for each of the principal industries, and based on data supplied by representative employers or establishments.

(4) From the data indicated above, index numbers should be computed to show the general course of changes in nominal wage rates and in actual earnings. Index numbers of the purchasing power of the wages should also be calculated by relating changes in actual earnings to changes in the cost of living, the necessary precautions being taken to ensure that the two series of data are comparable.

The nominal wages employed in computing the index numbers should be given in every case.

(5) At less frequent intervals, general wage censuses should be taken, information being obtained from the pay sheets of establishments to show rates of wages and the actual earnings in a typical week. The information should be given by industries, districts, occupations and

sex, and a distinction should be made between adults and young persons.

* * *

Until the principles enunciated above have been applied in the different countries, statistics of wages and hours of labour should at least give:

(1) Current rates of wages (hourly or weekly) and normal hours of work of typical categories of time workers; and at regular intervals averages weighted according to the number of workers to whom the data apply both for such categories and for all categories combined.

(2) Actual and full-time earnings and hours of labour for typical categories of workers, especially those paid on piece work. Such statistics should be available for sample periods, at least once a year.

(3) Real wage index numbers based on nominal wage and cost of living index numbers.

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In order that the International Labour Office may make tentative comparisons of the level of real wages in the different countries, the competent statistical authorities of each country should furnish the International Labour Office at regular intervals (if possible monthly) with statements, in a form to be agreed upon, showing for the capital cities of their respective countries:

- (i) the time-rates of wages and normal weekly hours of labour current in a limited number of typical occupations; and
- (ii) information as to the prices of a limited number of those items upon which the income of working-class families in most industrially developed countries is largely spent.

III. STATISTICS OF INDUSTRIAL ACCIDENTS

The Conference,

Believing that it is only by progressive and continual efforts that an international standardisation of schemes of statistics of industrial accidents can be obtained;

Considering it impossible, at least at present, to amend the laws in force in the various countries so as to make it possible to compare the statistics resulting from their provisions;

Recognising that the definition of industrial accident differs in the various countries;

Adopts the following resolution:

1. *Classification of Industrial Accidents*

Industrial accidents should be classified according to the industry of the injured worker, the cause of accidents, the extent and degree of disability, the location of the injury and the nature thereof.

(b) The *severity rate* should similarly be calculated by dividing the number of working hours lost (multiplied by 100,000) by the number of hours of working time.

Whereas practical difficulties prevent the calculation of the number of hours of working time, this number should be replaced by the number of full-time workers (i. e. the number of working days divided by 300), or the average number of workers, as may be best suited to the economic and social needs of the country or industry concerned.

Recommendation

It is hoped that countries in which compensation is invariably paid in the form of pensions will forward for compilation by the International Labour Office the necessary details for the determination of the mortality rates among persons injured in industrial accidents, so as to establish the degree in which this mortality is influenced by the age of the pensioner, by the time elapsing since the conclusion of medical treatment, and by the extent of industrial capacity.

APPENDIX III

List of Representatives appointed to attend the Conference

ALBANIA

Dr. Benoît BLINISHTI, Social Attaché at the International Labour Office.

AUSTRALIA

Sir T. A. COGHLAN, K.C., Agent-General for the Government of New South Wales at London; formerly Statistician to the New South Wales Government.

AUSTRIA

Dr. Frederick HAWELKA, Director at the Ministry of Social Administration.
Dr. Felix KLEZL, of the Federal Statistical Office.

BELGIUM

Mr. Armand JULIN, Secretary-General of the Ministry of Industry and Labour.

BRAZIL

Mr. Barbosa CARNEIRO, Commercial Attaché at the Brazilian Embassy, London; Member of the Economic and Financial Committee of the League of Nations.

BULGARIA

Mr. POPOFF, Director of Statistics.
Mr. NICOLOFF, Chief of Labour Office, Ministry of Industry.

CANADA

Mr. R. H. COATS, F.R.S.C., Dominion Statistician.

CHINA

Mr. CHI-YUNG-HSIAO, First Secretary of the Legation in Berne; Chief of the Permanent Service for liaison with the International Labour Office.

CZECHOSLOVAKIA

Dr. Jaroslav JANKO, Ministerial Assistant Secretary; Labour Statistician in the Ministry of Social Welfare.
Dr. Gustave REIF, Ministerial Secretary; Chief of the Labour Statistics Section in the Statistical Office of Czechoslovakia.
Dr. Cyril CECHRAK, of the State Statistical Office.

DENMARK

Mr. Adolph JENSEN, Director of the Statistical Department of Denmark.
Mr. Chr. HAUGEN-JOHANSEN, Chief of Section in the Ministry of the Interior;
Social Attaché for liaison with the International Labour Office.
Mr. C. V. BRAMSNÆS, Assistant Professor at the University of Copenhagen
Senator.

ESTHONIA

Mr. Voldemar GROHMANN, Legal Advisor to the Ministry of Labour.

FINLAND

Mr. Niilo A. MANNIO, Secretary-General of the Ministry for Social Affairs;
Member of the Governing Body of the International Labour Office.
Mr. Onni A. PYYKKO, Chief Factory Inspector.

FRANCE

Mr. HUBER, Director of General Statistics.
Mr. BOULIN, Divisional Inspector of Factories.
Mr. PUGE, Commissioner, Industrial Accident Fund.

GERMANY

Dr. PLATZER, Director at the Statistical Office of the Reich.

GREAT BRITAIN

Mr. John HILTON, Director of Statistics, Ministry of Labour.
Mr. Gerald BELLHOUSE, C.B.E., H.M. Chief Inspector of Factories, Home
Office.

GREECE

Mr. A. ANDREADES, Professor of Law at the University of Athens.

HUNGARY

Dr. Jean de JEZSOVITS, Ministerial Counsellor.

INDIA

Mr. A. G. CLOW, F.S.S., I.C.S., Under-Secretary to the Government of India,
in the Department of Industries and Labour.

ITALY

Mr. Luigi SOLINAS, Director-General of Labour at the Ministry of National
Economy.
Mr. A. ANDELELLI, Chief of Section at the Ministry of National Economy.
Mr. A. F. LABRIOLA, Counsellor for Immigration, Italian Embassy, Berne.

JAPAN

Count YASUTOKI YANAGISAWA, Member of the House of Peers; Director
of the Yanagisawa Statistical Institute, Tokio.
Mr. AKAMATSU, Secretary in the Bureau of Social Affairs, Department of
the Interior.

LATVIA

Mr. Rudolfs VEIDEMANS, Chief of Section in the Ministry of Labour.
Mr. Karlis SERZANS, Secretary in the Ministry of Labour.

LUXEMBURG

Mr. Ch. G. VERMAIRE, Consul of the Grand Duchy of Luxembourg at Geneva.

NETHERLANDS

Mr. van DAM ISSELT, of the Central Statistical Office of the Netherlands.

NORWAY

Mr. Olai LORANGE, Chief Inspector of Factories (nominated as Observer).
Mr. Ragnvalb JONSBORG, of the Central Statistical Bureau of Norway (nominated as Observer.)

PANAMA

Mr. RODRIGUEZ, former Under-Secretary of State for Public Education.

POLAND

Mr. Franciszek SOKAL, Delegate of the Polish Government to the Governing Body of the International Labour Office; former Director of Labour in the Ministry of Labour and Social Assistance.

PORTUGAL

His Excellency Antonio Maria Bartholomeu FERREIRA, Envoy Extraordinary and Minister Plenipotentiary at Berne.

ROUMANIA

His Excellency Dr. N. Petrescu COMNENE, Deputy; Member of the Commission on Labour Legislation; Envoy Extraordinary and Minister Plenipotentiary at Berne.
Mr. I. SETLACEC, Director-General of Labour in the Ministry of Public Health, Labour, and Social Welfare.

KINGDOM OF THE SERBS, CROATS, AND SLOVENES

Mr. Slavolioub MARCHITCHANINE, Engineer; Acting Central Inspector of Labour.

SOUTH AFRICA

Captain H. C. FOWLER, Deputy Chief Inspector of Factories.

SPAIN

Mr. Jose GASCON Y MARIN, Professor at the Central University, Chief of the Labour Statistics and Production Section at the Institute of Social Reforms.
Mr. Joaquin GUICHOT BARRERA, of the Statistical Department of the Ministry of Labour, Commerce, and Industry; and of the Statistical Service of the Institute of Social Reforms.
Mr. Javier Ruiz ALMANSA, of the Statistical Department of the Ministry of Labour, Commerce, and Industry; and of the Statistical Service of the Institute of Social Reforms.

SWEDEN

Dr. Bertil NYSTROM, Chief of Section in the Department of Labour and Social Welfare.

SWITZERLAND

Dr. GORDON, Chief of the Statistical Department of the Federal Labour Office.

Dr. BOHREN, Deputy Director of the Swiss National Accident Insurance Fund.

LEAGUE OF NATIONS

Mr. LOVEDAY, Economic and Financial Section.
