SECOND DISCUSSION REPORT

International Labour Conference

TWELFTH SESSION
GENEVA, MAY 1929

REPORT ON
PREVENTION
OF INDUSTRIAL ACCIDENTS

Item 1 on the Agenda

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INTRODUCTION.

This is the second occasion on which the question of the prevention of industrial accidents is before the Conference, in accordance with the double-discussion procedure as regulated by the Conference's Standing Orders. The first stage of this procedure was passed when the Eleventh (1928) Session of the Conference held a preliminary discussion of the question, decided to place it on the Agenda of the present Session, and drew up a Questionnaire on the subject for consulting the Governments as to the nature of the proposals on it which might be submitted to the present Session. To complete the second stage of the procedure the Twelfth Session of the Conference will accordingly have to consider the question with a view to the adoption of proposals on it in the forms prescribed in Article 405 of the Treaty, i.e. Draft Conventions or Recommendations. To facilitate this task the present Report, following the usual practice of the Blue Reports, furnishes the Conference with the replies of the Governments to the Questionnaire and certain draft proposals based on those replies.

The Questionnaire on the present item as drawn up by the last Session of the Conference covered three distinct subjects. By far the greater part of the Questionnaire was devoted to the general principles of accident prevention in industry as a whole, which it was contemplated might be formulated in a single comprehensive Recommendation, analogous to the Recommendation on systems of inspection adopted in 1923. In addition, there were two special questions which were proposed for separate treatment
in special Draft Conventions or Recommendations, viz. the question of the marking of the weight on heavy packages transported by vessels and the question of responsibility for the protection of power-driven machinery.

In view of the previous discussion on them which took place last year, these different subjects hardly need any special commendation to the consideration of the present Session of the Conference. In fact, the number and nature of the replies which have been received to the Questionnaire furnish all the evidence which is needed of the importance which the Governments attach to these different aspects of the problem of industrial accident prevention and to the contribution which the decisions of the Conference on them can make towards promoting the protection of the workers against the occupational dangers to which they are exposed. It will be seen later, indeed, that the replies of the Governments have furnished the basis not only for a comprehensive Recommendation on the general principles of accident prevention, but also for a Draft Convention and a Recommendation respectively on the other two special questions referred to above.

By 31 January, the date on which this Report was closed as regards the inclusion of replies to the Questionnaire, replies had been received from the Governments of the following 26 countries: Austria, Belgium, Canada (Provinces of Alberta, Quebec, Manitoba, Saskatchewan), Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, India, Irish Free State, Japan, Latvia, Luxemburg, Netherlands, Norway, Poland, Portugal, Rumania, Serb-Croat-Slovene Kingdom, Spain, Sweden, Switzerland, Uruguay. These replies are reproduced in full in the present Report. The Office has also received a communication from the Government of the Canadian Province of Prince Edward Island to the effect that, while the Government is in accord with the principles of the Questionnaire, the latter has no application in present circumstances so far as that Province is concerned.

Further replies have been received since 31 January, but, as these replies arrived after Chapter I of this Report was already in the press, they as well as any others which may be received in the meanwhile will be published in a
Supplementary Blue Report on the present item on the Agenda which will appear before the opening of the Conference.

The replies received in time for inclusion in the present Report are reproduced in the first Chapter. The second Chapter gives a general survey of the problem in the light of these replies, and the third Chapter contains a résumé of the conclusions reached in the previous Chapter and the texts of two draft Recommendations and one proposed Draft Convention which are submitted for the consideration of the Conference.

Geneva, 28 February 1929.
CHAPTER I

REPLIES OF THE GOVERNMENTS

This chapter contains the replies of the Governments which were received by the International Labour Office in time for inclusion in the present report. The replies are grouped together under each separate question contained in the Questionnaire, and are arranged by countries in the English alphabetical order.

PART A. I. QUESTION 1

Fundamental principle

Do you consider that the International Labour Conference should adopt a Recommendation embodying the general principle that there is a moral obligation not only on employers and workers, but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents?
Austria

The efforts exerted for the prevention of accidents can only succeed if all parties directly or indirectly interested in the problem co-operate.

Belgium

It is inconceivable that a negative answer could be returned, or even that reservations could be made in replying to this question.

Canada

Alberta.

It is considered that a Recommendation of the nature outlined in Question 1 should be adopted.

Manitoba.

The reply is in the affirmative.

Quebec.

The reply is in the affirmative.

Saskatchewan.

The reply is in the affirmative.

Czechoslovakia

The Government considers that the International Labour Conference should adopt a Recommendation embodying in the first place the general principle that there is a moral obligation
not only on employers and workers but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents.

**DENMARK**

The reply is in the affirmative.

**ESTONIA**

The reply is in the affirmative.

**FINLAND**

The Government of Finland is in favour of the adoption of an international Recommendation on this subject.

**FRANCE**

The reply is in the affirmative.

**GERMANY**

The reply is in the affirmative. The principle that it is the duty of employers and workers to further the prevention of industrial accidents is already embodied in German legislation. It is the obvious duty of the Government to interest itself in accident prevention, and it should even take the lead in this direction. Public opinion should also be awakened from time to time.

**GREAT BRITAIN**

His Majesty's Government believe that this obligation is already recognised by all States which have protective legislation at all and is the basis of their administration. They do
REPLIES OF THE GOVERNMENTS

not see how it can be embodied in a clause in a formal Recommendation under the Peace Treaty, but it could suitably be enunciated in a general statement of principles, e.g. in a Preamble.

HUNGARY

The reply is in the affirmative. It should be mentioned in this connection that, in countries where modern ideas on the prevention of industrial accidents have not made sufficient progress, it is usually thought to be exclusively for the State, or for a service specially created by the State (factory inspectorate), to take measures for accident prevention. It is therefore desirable that the Draft Recommendation should emphasise, in addition to the responsibility of the State, that of the employers, the workers, and even of the public in the work of accident prevention.

INDIA

Note. — In forwarding their reply to the Questionnaire the Government of India state that they found the time allowed inadequate for obtaining the considered views of all the interests involved. The replies are therefore to be regarded as provisional only.

The reply to the first question is in the affirmative.

IRISH FREE STATE

The Government of Saorstat Eireann would favour the adoption of a Recommendation embodying the general principle that there is a moral obligation on employers, workers, Governments and the general public to use every means in their power to help to prevent industrial accidents.

JAPAN

The reply is in the affirmative.

LATVIA

The Government of Latvia considers it desirable that a Recommendation on the prevention of industrial accidents in general should be adopted.
LUXEMBURG

The Government of the Grand Duchy of Luxemburg considers that it is undoubtedly desirable for the International Labour Office to adopt at least a Recommendation embodying the general principle that there is a moral obligation not only on employers and workers, but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents.

It may nevertheless be asked whether a mere Recommendation can be considered as sufficiently strong to provoke the vigorous international action which is indispensable if the vital interests at stake are to be equitably protected. Would it not be better to substitute an actual obligation for the moral obligation referred to, and to seal it by an international Convention?

NETHERLANDS

The Government of the Netherlands prefaces its reply by the following observations:

The Government of the Netherlands could agree that the Conference should adopt a Recommendation embodying the general principle of the development of industrial safety.

At the same time there is in connection with some of the points raised in the present Questionnaire (particularly in Questions 1 and 2a) a general conviction, which also finds practical expression, that it would be superfluous to deal with these points again in a Recommendation.

The reply to the first question is covered by the above observations.

NORWAY

The reply to the first question is in the affirmative.
Poland

A Recommendation of the kind proposed would be desirable in principle, but at the same time it could not lay down moral obligations either for the employers or the workers, and still less for the general public. Recommendations or Conventions can only place obligations on the Governments which ratify or adhere to them. It would appear that a proposal made in this manner would go beyond the competence of the International Labour Organisation. The Recommendation should, therefore, merely lay down that there is an obligation on Governments to influence those factors in society which are concerned in the matter with a view to reducing industrial accidents as far as possible.

Portugal

The reply is in the affirmative.

Rumania

The reply is in the affirmative.

Kingdom of the Serbs, Croats and Slovenes

The reply is in the affirmative. The Government of the Kingdom of the Serbs, Croats and Slovenes is of opinion that the International Labour Conference should adopt a Recommendation embodying the general principle that there is a moral obligation, not only on employers and workers, but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents.

Spain

The International Labour Organisation should adopt a Recommendation embodying the general principle that there
is a moral obligation not only on employers and workers but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents. The moral obligation both on the part of official and private institutions exists and is recognised through laws and regulations laying down preventive measures and providing penalties for infringements. There can be no doubt of the advantages of studying the question as a whole nor of the advantage of enunciating in a formal Recommendation the fundamental ideas underlying the opinions expressed by the representatives of the various interested parties.

**Sweden**

In view of the considerable number of industrial accidents which occur in every country, the suffering which they involve for the workers and the expense which they lay upon industry, a Recommendation of this kind cannot be considered as other than entirely justified.

At the same time, it may be questioned whether it is desirable that the moral obligation should be extended to the public.

**Switzerland**

The Swiss Government is convinced that it would be desirable for the International Labour Conference to adopt a Recommendation embodying the general principle that there is a moral obligation not only on employers and workers, but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents. It is considered indisputable that in the present state of the question there can be no question of anything but a Recommendation. The conditions in which accident prevention has developed, and the tendencies which it evinces in the different countries are still too divergent to enable an agreement to be reached on principles which might form the subject of a Draft Convention.

The Swiss Government is consequently in favour of a Recommendation.
URUGUAY

In the opinion of the Ministry of Labour, there is no lack of reasons in favour of the adoption by the forthcoming Conference of a Recommendation embodying the general principle that it is the duty of employers, workers, Governments and the general public to use their best endeavours and every means in their power with the object of preventing industrial accidents.

The form in which the question is drafted appears to imply that the obligation would be purely moral in character, but the Ministry is unable to accept this view.

The prevention of industrial accidents is a "legal duty", at least so far as employers, workers and Governments are concerned.

With regard to the employers, it may be questioned whether the obligation to compensate injury sustained accidentally is a duty arising out of the labour contract ("safety liability" (Deuda de seguridad) according to Saintclette y Sauzet), or a social obligation apart from any contract (the principle of "occupational risk"). However, so far as the prevention of injury in itself is concerned, theoretical differences are unimportant, since, both in theory and practically in the form of legislation, there is unanimous agreement in considering that the labour contract implies that safety at work must be guaranteed, and consequently the duty of the employer to safeguard all persons working on his behalf and under his orders against accidents is usually recognised. It is equally certain that laws based on the principle of industrial risk provide that the employer is responsible to the insuring institution under a contract of insurance for accidents occurring in places where the provisions of the safety regulations have not been observed. (Uruguayan Act of 26 November 1920, Article 46.)

In the case of the workers also this duty arises out of natural justice. The fact that accident legislation based on the theory of unconditional responsibility provides that the worker should not lose his right to compensation through slight or serious fault of his own in no way implies that in this respect the duty of caution does not exist, since the employer is admittedly entitled to rescind the labour contract when the worker breaks the safety regulations.

Neither can the same legal duty be disavowed by the State if it is thought that it is the duty of the latter to protect the life and health of the persons subject to its rule. There is no express mention in Uruguayan public law of the right of individuals to safety at work. The constitution declares, however,
that the list of "rights and guarantees" in no way excludes other rights, even if not expressly mentioned, which are inherent in the human race, and among which figures the right to work without danger, which may be considered as one aspect of the right to live.

The moral character of the obligation can only be accepted in so far as the general public is concerned, although even now it can be noticed that the development of social solidarity is leading to the inclusion of such a duty among the already recognised legal duties. One way in which this tendency might be brought out might well be to authorise all persons to inform the authorities of breaches of the safety regulations.
PART A.I. QUESTION 2

Research into causes of accidents and means of prevention

2. Do you consider that a Recommendation concerning the prevention of industrial accidents should also deal with all practical measures required for putting into operation the principle indicated in the preceding question?

(a) Do you consider, in this connection, that the Recommendation should emphasise in the first place the need of organising constant and systematic research both for elucidating the causes of industrial accidents and for discovering the best methods of preventing them, such research to be undertaken primarily by official State institutions and public institutions of a similar standing, with the help of the interested parties, or by technical institutions set up by the different branches of industry?

(b) (i) Do you consider that the Recommendation should invite the States Members of the International Labour Organisation, with a view to the subsequent preparation of a Draft Convention, to keep in touch with the International Labour Office in compiling and developing the industrial accidents statistics for their respective countries, with a view to arriving at uniform bases which would as far as possible allow of a comparative study of the statistics of the different countries?

(ii) Have you any suggestions to make as regards the method of arriving at the desired result?

In particular, do you consider that particular branches of industry should first be dealt with, and if so, which?

(c) What other matters do you consider should be taken into account in scientific research into the prevention of industrial accidents?
(d) Do you consider that scientific research with the object of preventing industrial accidents should be concerned not only with the material conditions in the various establishments, but also with the human factor?

**Austria**

As the measures for the prevention of industrial accidents cannot take into account the variety of causes of accidents and the circumstances which attend them, a Recommendation on Accident Prevention should only refer to the most important fundamental principles.

It is of primary importance definitely to determine the causes of industrial accidents in as many cases as possible, and thereby to enable the appropriate precautions for removing the causes of accidents, or for effectively counteracting them, to be ascertained. These researches might be undertaken most suitably by State or similar public institutions, with the collaboration of technical committees for individual branches of industry. With this object in view, the Central Accident Prevention Office was created in Austria in 1926, on which accident insurance institutions, employers, workers and factory inspectors are represented.

As in the case of other social and economic measures, the establishment and development of statistics is indispensable as a means of furthering accident prevention. The establishment of uniform general principles for the compilation of accident statistics in individual countries is without question very desirable for purposes of comparison.

With regard to the methods to be employed for the registration of industrial accidents, the Austrian Government desires to draw attention to the principles on which accident statistics are compiled in Austria in the reports of the factory inspectors. Accidents in Austria are registered—apart from indications as to industrial category, age and sex—according to the nature of the cause of the accident, and a distinction is made between accidents occurring in the following industries:

*Steam* (boilers, steam apparatus, steam pipes).

*Transmission* (putting on and removing pulleys, attention during motion, other causes).

*Motors and engines* (steam engines, electric generators and motors, internal combustion and explosion engines, other engines, and horse-gear).
Machinery (rolling mills, hammers and forging presses, grindstones (excluding eye-injuries), emery wheels and polishing wheels (excluding eye-injuries), presses, punches and shears (excluding sheet metal presses), lathes, boring machines, other machine tools such as frame saws and other straight saws, circular saws, band saws, planing machines, milling machines, textile machines such as openers, willowing machines, carding and teasing machines, centrifugal separators, calenders, cardboard and paper machines, cutters, kneading and mixing machines, edge rollers, agricultural machines, other workshop machines, rolling machines (excluding rolling mills and calenders), gear wheels on machines).

Transport (lifts and self-acting inclined planes, cranes, other lifting gear, power railways, roller ways, aerial railways, motor lorries, vehicles and draught animals, and other means of transport).

Electricity (handling live parts, short circuits and earths, other causes).

Explosions (re-boring after misfires, afterburning of charges, thawing of dynamite, other accidents in connection with explosives, explosive gas and vapour mixtures, gases and vapours under pressure, excluding steam).

Poisons (lead, mercury, other gases and vapours, other poisonous substances).

Combustible substances (celluloid and celluloid dust, other kinds of explosive dust, benzine, other combustible substances).

Burning and corroding substances (open fires, hot gases and liquids, hot bodies, molten metal, corroding liquids and gases).

Various operations (hand tools, flying splinters, lifting, dragging, pushing and rolling heavy loads, loading and unloading, sliding and upsetting earth and stones, collapse of stacked material, hewing and carrying wood, falling objects, collapse of scaffolding, falls from a height, slipping and tripping, knocks, collisions, sharp and pointed objects, and other or unknown causes).

In addition to the above-mentioned classification, accidents should be further differentiated according to their gravity (slight, severe, fatal), and according to the time of the accident (day or night, hour of the day).

A complete statistical picture of industrial accidents, such as would enable a decision to be reached as to the desirability of safety measures, will only be obtained when accident statistics extend to all branches of industry and manufacture. For this reason, it is thought undesirable that statistics should be confined to particular branches of industry. The Recommendation should lay down generally that accident statistics should
be compiled on as broad lines as possible, and at the most the desirability of establishing special statistics for particular trades presenting special danger, might be emphasised in conjunction with this general recommendation. According to the experience gained in Austria, the following would be considered such trades: metal working, wood working, chemical manufacture, mining, transport undertakings (especially railways).

As the human factor plays a highly important part in industrial accidents, research into this matter should also deal with that factor. By the human factor is understood the conduct of the worker and his physical condition, his suitability for certain operations, contented or depressed state when at work, level of intelligence, skill, rapid or slow comprehension, degree of fatigue, temperament, material conditions such as whether well-nourished or not, etc.

Belgium

The reply is in the affirmative.

(a) With regard to the State, the factory inspection service has dealt with accident prevention since its creation in so far as it is able.

With regard to private technical institutions, very considerable results have been obtained in Belgium by the Association Vinçotte, the Communal Fund, the textile industries, and especially the Belgian Manufacturers' Association. The action of these institutions might possibly be still more developed with Government support.

(b) (i) The reply is in the affirmative.

(ii) The reply is in the negative.

(c) At the moment it is not desirable to consider other methods.

(d) The work and the means being necessarily limited, the Belgian Government considers that the study of the human factor might have appreciable influence on the prevention of accidents.

Canada

Alberta.

It is considered that such Recommendation should as to practical measures be limited to such as are of general application, as the conditions of detailed application differ in various localities:
(a) In this connection research into accidents, their cause and prevention, is recognised in this Province as necessary, and is being steadily carried on.

(b) (i) Whilst the establishment of uniform bases for the comparative study of the statistics of different countries is desirable, it is thought that the differences in the requirements of local legislation as to compensation for accidents and the notification of accidents would make it work of much difficulty and little practical value to attempt to establish such uniform bases.
(ii) Therefore no suggestions are made upon the point.

(c) It is considered that the following matters might usefully be taken in account in scientific research into the prevention of industrial accidents, viz.:

- Causes, frequency, time of work period, change of staff, intermittent employment, age of injured person, physical condition of injured person prior to accident.

**Manitoba.**

Yes, leaving details to the different countries or States.

(a) Official State institutions such as Factory Inspection Departments, Labour Departments, Workmen's Compensation Boards with the assistance of the interested parties.

(b) (i) The reply is in the affirmative.
(ii) Yes, building construction and branches of industry where hazardous machinery is in use.

(c) Guarding of machinery, length of work periods and co-operation between employers and employees.

(d) The reply is in the affirmative.

**Quebec.**

The question is under study.

**Saskatchewan.**

The reply is in the affirmative.

(a) By State and official institutions primarily with the
assistance of parties interested, for the reason that the alterna­
tive suggestion may not be as effective from lack of authority.

(b) (i) Conditions and standards vary to such an extent
that from deductions made from a study of the accident statistics
of different countries, it is considered of very little practical
value.

(c) and (d) It is considered that research with the object of
preventing industrial accidents should be confined to conditions
in the various establishments.

CZECHOSLOVAKIA

In order that the Recommendation should be effective it is
considered necessary that it should also contain indications
as to the measures to be taken for accident prevention.

(a) Systematic research, with the object of studying and
elucidating the causes of industrial accidents, and of discovering
the best means for preventing them, is undoubtedly the first
condition for effective prevention. This work should be under­
taken in the first place by the competent State authorities and
institutions, collaborating with the accident insurance institu­
tions and the technical institutions which may be organised in
the different industries, e.g. the Technical Safety Committee
of the Czechoslovak Confederation of Employers' Organisations,
the analogous Committees of the Czechoslovak Scientific Man­
agement Committee, and the Masaryk Labour Academy, as
satisfactory results cannot be obtained except by concentrated
effort of this kind.

(b) (i) International regulations for accident statistics are
essential if the results are to be internationally comparable,
and it would therefore be desirable that the Recommendation
should mention as a guiding principle the collaboration of the
Governments with the International Labour Office, with a view
to arriving at uniform bases which would facilitate compara­
bility of statistics of industrial accidents and diseases.

(ii) In order to reach the result aimed at it would be desirable
to draw up uniform forms both for the Statement of Accident
and for Questionnaires relating to the Statement, and it would
be desirable in this connection to classify industrial accidents
as follows:

(1) Accidents due to power-driven and hand-driven machines;
(2) Accidents due to objects collapsing, falling, upsetting,
etc.;
(3) Accidents due to falling;
(4) Accidents occurring when loading, unloading, lifting and carrying;

(5) Accidents due to transport of every kind;

(6) Accidents when working with animals;

(7) Accidents due to the use of instruments and tools;

(8) Accidents due to electricity, explosions, etc.;

(9) Other accidents.

It would also be desirable to differentiate the above Questionnaires according to the different classes of undertakings, e.g. mines, quarries, transport undertakings brick-works, building, electricity undertakings, etc.

If the statistics are to be complete they should deal with all branches of industry, agriculture, and forestry, as well as commercial undertakings.

(c) Scientific research into accident prevention should also take into account the workers’ organisations, which are responsible for the education of labour in safety matters, as well as works committees (Article 3 of the Act of 12 August 1921 — No. 330 of the Collected Laws and Orders) and schools.

(d) Scientific research with the object of preventing industrial accidents should be concerned not only with the material conditions in the various establishments, but equally with the human factor. Scientific methods used for psycho-technical tests of fitness for work and strength might also be utilised.

DENMARK

The reply is in the affirmative. At the same time it must be said here that if the expression “practical measures” is intended also to imply practical measures appropriate for preventing the various accidents, it would be impossible, in view of the continual development of technical progress and the changes thus brought about, to give a complete list of these measures. An indication which would not be complete is worse than no indication at all. In this respect, therefore, the recommendation should merely indicate the guiding principles to be observed in industry in order to prevent accidents.

(a) The reply is in the affirmative. It would certainly be desirable that research should be undertaken in every country with a view to elucidating the causes of industrial accidents and discovering the best methods of preventing them. Such research should be undertaken by official State institutions, as this is the only way in which one can be absolutely certain that research has been carried out in an entirely unbiassed manner.
(b) (i) Statistics of industrial accidents should first of all deal with the causes of accidents, and the statistics ought to be in great detail if they are to have the necessary value. In view of the difficulties of preparing accident statistics which would enable a comparative study of the experience of different countries to be made, a Recommendation on this subject should go no further than to indicate uniform bases for the preparation of statistics of this kind. The latter should perhaps also be confined provisionally to a certain definite branch of industry, e.g. the wood-working trade, in which technical methods are more or less the same in the various countries.

(ii) As has been said above, statistics should be in great detail and should be utilised from one country to another. So long as international indications for drawing up statistics have not been given, each country will naturally pay attention to those industries in which the risk of accident is the most obvious or the greatest. It might be possible, on the basis of the experience gained in the different countries, to reach an agreement as to the industries which the statistics should cover. (See also the foregoing reply (b) (i).)

(c) It is thought desirable to propose that scientific research might first of all concern itself with the risk of accident which is increasingly associated with modern technical methods in connection with certain dangerous appliances utilised in industry, e.g. containers liable to explosion and containers charged with asphyxiating gas under pressure.

(d) As there is no doubt but that the influence of the human factor on the risk of accident is considerable, scientific research should not merely be confined to the material conditions in the various establishments, but should also concern itself with the human factor, including the influence on safety of the various forms of wage payment, piece-work, time rates, etc., and the influence of fatigue.

ESTONIA

(a) The reply is in the affirmative.

(b) (i) The reply is in the affirmative.

(ii) The most suitable method might be to place this question on the Agenda of one of the future Conferences of Statisticians which are convened from time to time by the International Labour Office.

(c) It would seem preferable not to exceed the limits already indicated in the Questionnaire for scientific research
into methods of accident prevention in order that the Recommendation should not be overloaded.

(d) The reply is in the affirmative.

FINLAND

It is desirable that the Recommendation should mention the practical measures required for putting into operation the principle indicated in Question 1.

(a) If the measures required for preventing industrial accidents are to succeed, special importance must be attached to the study and elucidation both of the causes of accidents and the best methods of prevention. This research should be carried out chiefly in official establishments or similar public institutions. It is desirable, however, that research should also be carried out by technical institutions within industrial establishments, since work carried out in the establishments themselves would be likely to awaken greater interest in the safety movement among the employers. The results of enquiries made in the different countries should be published in a suitable manner, e.g. with the assistance of the International Labour Office and should then be brought to the notice of all the States Members.

(b) (i) Industrial accident statistics are an important feature of accident prevention. They should primarily be developed in each country, but it would also be advantageous to have comparative statistics for the different countries. As regards the prevention of accidents, it is desirable that the factory inspection service should be able rapidly to draw from the accident statistics of each country general indications as to the points in connection with which safety measures are most urgently required. It is obvious that final and detailed statistics cannot be rapidly drawn up, but the necessity for this is not great. It would be sufficient if the attention of the factory inspector were quickly drawn to machines and workshops where accidents have recently occurred.

Accident statistics should not, of course, be confined to the general information referred to above. They must be given a definite form so that it may be seen at least where accidents occur; and what are their causes and their consequences. So far as possible, each country’s statistics should be so compiled as to provide a basis for a comparative study of the statistics for the different countries, e.g. in accordance with the Resolution adopted at Geneva in 1923 by the Statistical Conference.

It would be desirable to recommend specially an arrangement of international statistics showing, for example, on the basis
of the information received from each country, the danger attending the use of machines in most general use and the various forms of work in the different industries.

(ii) Statistical research on the subject of industrial accidents should first of all deal with machines and kinds of work in connection with which accidents are most frequent.

(c) and (d) As the occurrence of accidents depends to a large extent on the worker himself and his physical and mental qualities, it is natural that research into accident prevention should also deal with the worker. This being so, the suitability of the worker for particular work must be examined, and to do this it is necessary to ascertain the influence of personal factors on accidents. Among these factors must be studied the effect of fatigue on the frequency of accidents, taking account of the length of the working period, rest periods and holidays, the condition of the workplaces (heating, lighting and hygienic condition). Psycho-technical tests are an important factor in the choice of workers.

FRANCE

The reply is in the affirmative.

(a) The reply is in the affirmative.

(b) (i) Accident statistics being of the highest importance for those concerned with research into the causes of accidents, it is desirable that the Recommendation should invite the States Members of the International Labour Organisation to compile and to develop industrial accident statistics for their respective countries, keeping in touch with the International Labour Office in order that statistics of the different countries should be, as far as possible, drawn up on the same bases with a view to making them similar and thus comparing them with advantage. Such statistics are indispensable for Draft Conventions which may be proposed in the future, and for deciding the relative urgency of the Conventions according to the number and gravity of the accidents which it is required to prevent.

(ii) Efforts might be directed in the first place to the establishment of comparable statistics for certain industries in which danger is particularly great. It even appears desirable that in certain cases statistics should deal with special features and even with machines themselves, e.g. as regards the wood industry, statistics might be established for accidents produced by particular apparatus, such as circular saws, moulding machines, etc. In the case of the building trade and public works in general special statistics might be established for the falls of persons working on scaffolding.
(c) In addition to statistics, valuable information may be given by monographs on methods of work and machines which give rise to accidents, as well as the various methods of prevention employed, particularly if they are drawn up in the different countries on uniform lines.

Moreover, it might be advantageous to undertake research into the frequency of accidents in relation to other factors, such as hours of work and rest, hour of the day, day of the week, season, vocational guidance and selection, etc.

(d) The reply is in the affirmative.

GERMANY

It is impossible to enumerate all the practical measures required for the prevention of accidents. The Recommendation should be confined to general principles, and details, which may vary in the different industries, and even in different establishments, should only be referred to. The Recommendation might consequently merely mention one or two more important examples.

(a) Research is important and its necessity should be emphasised, but it is only one method of furthering accident prevention. It is equally important that the experience gained in factories and the facts which come to the notice of factory inspectors, and which frequently remain unnoticed in their reports, should be brought out, and made accessible to all concerned.

It is important that technical committees for particular industries should be formed, and the workers should participate therein. The institutions already existing in the various countries should in general be referred to — in Germany there are a number of such institutions. In countries such as Germany, where industrial accident insurance is organised by industries, the advantages of such a system are immediately obvious in regard to accident prevention as well.

(b) (i) In the absence of comparable statistics of accidents, it is impossible to draw conclusions from the results of experience of accident prevention in the various countries. As, however, the ideas on which statistics are based have not been defined internationally — not even the simplest idea, namely, that of an "accident" — the first object must be to secure uniformity in this respect. It is also important for accident statistics that an agreement should be reached as to the most uniform division and limitation of industrial groups and kinds of industries; consideration can then be given to the actual development of accident statistics.
(ii) The German national insurance office has prepared an extremely comprehensive and thorough survey out of which an extract might usefully be taken for international purposes. The researches should, in the first place, cover all internationally comparable industries. On account of the difficulties undoubtedly to be anticipated, certain well-defined industries should first be dealt with, e.g. wood-working; ironworks; textile trades.

As statistics must be compiled in each individual country, they must be so planned that, in addition to the requirements of international comparison, room must be left for the particular requirements of the individual countries.

(c) On practical and economic grounds, research should be conducted with the object of prevention of accidents. Special questions, such as accidents on the way to and from work, which are dealt with in Germany in recent legislation, and which are connected with the question of street traffic, should not be excluded. Attention should also be given to particular questions, such as the protection of young workers, the prohibition of the employment of certain workers in certain trades, and similar questions.

(d) Since experience has shown that some 75 per cent. of accidents could not have been prevented through technical means, but are to be attributed to shortcomings on the part of the injured person himself, it is essential that the human factor should be included as an object of research, which should deal with the influence of fatigue, hours of work, intervals, vocational suitability, age, sex, and condition of workrooms (light, ventilation, noise) as well as the fundamental differences between modern workshops and factories.

**Great Britain**

The matters mentioned in this question seem to His Majesty's Government to be more suitable for a Resolution than a formal Recommendation.

(a) Investigation of, and research into, the causes of accidents are the foundation of accident prevention. It seems doubtful whether there is any advantage to be gained by merely emphasising the need of such investigation and research. It is already recognised by most, if not all, industrial countries of any importance — and is sufficiently recognised, so far as the Conference is concerned, in the Resolution adopted in June. As regards the question whether such research should be undertaken primarily by the State or by the industries themselves, the answer must depend largely on the circumstances of indivi-
dual States and industries. In Great Britain research is undertaken both by the State and by industry. The important thing is to secure co-operation between the State and the industry. In the opinion of His Majesty's Government a study could usefully be undertaken of the methods of organising research, the points to which it should be directed, and the arrangements for securing co-operation between different research centres and pooling results.

(b) (i) and (ii) Uniformity of statistics is very desirable and the British Government would be in favour of any practicable steps that can be taken to secure it. The machinery for the consideration of the subject is already in existence in the Statistical Conferences, composed of representatives of the Governments and the International Labour Organisation, which meet from time to time. The only recommendation that can usefully be made, in the opinion of His Majesty's Government, would be that the Governments concerned should give their sympathetic consideration to the proposals agreed upon by these Conferences. It may be pointed out that the Resolution on Accident Prevention which was adopted at the 1928 Conference urges the importance of the subject.

(c) This is too big a subject to be dealt with fully in an answer to a question. All factors which have a bearing on accident causation — physical (lighting, temperature, ventilation, etc.), psychological (selection of workers), and moral (safety first, discipline of the factory) — are proper subjects of investigation.

(d) Yes; see answer to (c).

Hungary

In addition to general principles, it is necessary to enunciate practical instructions in detail and to draw attention to the most effective methods of applying them.

(a) It is unquestionable that research with a view to elucidating the causes of industrial accidents and finding the best methods of preventing them is one of the first steps to be taken. The question whether it should be entrusted to an official institution or to institutions composed by the parties concerned should be decided according to the organisation and particular circumstances of each State. As the conviction continues to gain ground that accident prevention is not only an affair concerning the safety of the workers but is also a matter of concern to national economic life in general, it will be generally recognised as desirable that the assistance of economic organisations should be enlisted, and that with this object there should
be close contact between the work of the State institutions and those composed of the parties concerned.

(b) (i) The scientific research referred to in the preceding paragraph and the practical application of safety measures must both necessarily be based on statistics of industrial accidents.

The statistics serve two purposes; they furnish indications of utility in the work of prevention, and they also mark its progress and results.

As regards the first of these objects, it is necessary that statistics should be as detailed as possible. Highly detailed information is collected by accident insurance institutions, and it is consequently desirable that the work of compiling documentary information should be linked with that of accident insurance.

With a view to estimating the results of the work of accident prevention, it is important that the national statistics should be compiled on common bases which would facilitate comparison. This, however, is a question which goes beyond the subject of statistical problems. So long as the industries covered by compulsory accident insurance are differently defined in different countries, with the result that the signification of the term "accident" varies from one State to another, it can scarcely be hoped that comparative statistics should be obtained.

(ii) It is desirable that this question should be dealt with by the International Labour Organisation. The first step might be to establish international statistics of fatal accidents in the more dangerous trades. All that would be required to do this would be to decide by means of international agreement on a definite system of statistics. Further developments and generalisations might then be made with this system as the point of departure.

(c) Scientific research should deal with the organisation of work and its division, the kind of equipment and apparatus, improvement in safety appliances, both from the standpoint of accident prevention and that of ease of manipulation.

(d) Scientific research into accident prevention should not only be concerned with, but should make a thorough investigation of the human factor and all the conditions which may affect it.

India

Note: See note at head of reply to Question 1.
The reply is in the affirmative.

(a) The Government of India agree that the Recommen-
tion should emphasise the need for constant and systematic research both for elucidating the causes of industrial accidents and for discovering the best methods of preventing them, but they consider that such research may alternatively be undertaken by State officials whose duty it is to take proper steps for the prevention of industrial accidents, if there are no State or public institutions established for the purpose.

(b) (i) Yes, but on the understanding that States Members are not thereby in any way committed to the acceptance of any Draft Convention that may eventually be framed. The conditions obtaining in India are so totally different from those obtaining in Western countries that an international comparison of such statistics may often prove to be misleading.

(ii) The term "accident" should be clearly defined and the statistics based on some uniform system. Owing to the fact that conditions vary from country to country, the Government of India do not consider that it would be desirable to specify in a Recommendation the particular branches of industry which should be dealt with first.

(c) Research should include the study of mechanical methods with a view to standardisation of machinery from the point of view of safety.

(d) The reply is in the affirmative.

IRISH FREE STATE

The Government is of opinion that the Recommendation proposed for adoption by the International Labour Conference should indicate, where possible, the practical measures required for putting into operation the principle indicated.

(a) The Government is of opinion that the Recommendation should emphasise the need for systematic research, both for elucidating the causes of industrial accidents and for discovering the best methods of preventing them. The research should be organised in the manner best suited to the existing requirements and conditions of the country concerned.

(b) (i) The Recommendation should ask the States Members to assist the International Labour Office in compiling and developing statistics relating to industrial accidents, so that by arriving at a uniform basis, a comparative study of the statistics in different countries might be available.

(ii) Until the various methods in operation in different countries for the compilation of statistics relative to industrial
accidents are known, it would be difficult to make any suggestions as to a uniform basis.

It is considered that those branches of industry in which serious accidents are most numerous and are common to the different countries, should be dealt with first.

(c) and (d) It is essential that scientific research which has for its object the prevention of industrial accidents should take into account the human factor as well as the material conditions. The study of industrial fatigue in relation to the causation of accidents has engaged the attention of many countries. This and other human factors should be taken into account.

**Japan**

The reply is in the affirmative.

(a) The reply is in the affirmative.

(b) (i) The reply is in the affirmative.

(c) The reply is in the affirmative.

**Latvia**

(a) In view of the success with which measures for the prevention of industrial accidents have met, it is desirable to emphasise the necessity of systematic research with a view to elucidating the causes of industrial accidents, either by official State institutions with the help of the interested parties, or by technical institutions set up by the different branches of industry.

(b) (i) With a view to the subsequent preparation of a Draft Convention, the Recommendation should invite the States Members of the International Labour Organization to compile and develop industrial accident statistics in their respective countries, with a view to arriving at uniform bases which would allow of a comparative study of the statistics of the different countries, in accordance with the resolutions adopted at Geneva in 1923 by the Conference of Statisticians.

(ii) Statistical research might first of all deal with industries and forms of work where accidents are most prevalent.

(c) and (d) With a view to preventing industrial accidents, not only must the material conditions in the various establishments be considered, but also the human factor. The workers' qualifications for his occupation must be considered in relation
to the effects of fatigue on the frequency of accidents, taking account of the length of time spent at work, rest periods, spare time, holidays and hygienic conditions at work.

**LUXEMBURG**

A Recommendation on the prevention of industrial accidents can only be of utility if it also deals with the practical measures required for putting into operation the principle indicated in the first question.

If effective action against the continually increasing number of industrial accidents is to be organised, it is above all necessary that the causes of such accidents should be clearly ascertained. In this connection a Convention dealing with the establishment and development of international statistics of industrial accidents might be of great value. Statistics of this nature, drawn up by the International Labour Office and based on figures furnished by the different Members of the International Labour Organisation, should show not only the number of industrial accidents in the various occupations throughout the world, but should primarily indicate the technical and psychological causes of these accidents.

This primary condition having been complied with, scientific research should be organised with a view to ascertaining the best methods of avoiding industrial accidents. Such research could be usefully directed by technical laboratories or experimental stations set up for the different branches of industry in which accidents are particularly frequent.

Scientific research having as its object the prevention of industrial accidents should deal not merely with the material conditions in the various establishments, but also with the human factor.

**NETHERLANDS**

See the preliminary observations to the reply.

(a) See the preliminary observations.

(b) (i) The reply is in the affirmative. On this point the States Members of the permanent Organisation, collaborating with the International Labour Office, could perform a work of utility, provided that no attempt were made to draw up statistics in too great detail, and that they were convinced that the statistics in question would only be of value if they were exactly specified and based on the results of research by experts.
(ii) It is of little or no importance to indicate which branches of industry should be dealt with first. It is also unnecessary to institute enquiries in each country for every detail.

If, for instance, in certain countries systematic enquiry was made into accidents in foundries, in other countries into accidents in connection with electricity, and in others into accidents with acetylene apparatus, hoists, chains, etc., the information obtained would speedily cover a wide field.

(c) In addition to the establishment of statistics consideration must be given also to the technical side of safety work, and this must be based on a knowledge of the causes of accidents. In this case again work of utility may be performed by the International Labour Office in its capacity as an organ of collaboration and exchange of information and practical experience acquired by the different countries in this matter.

(d) The reply is in the affirmative.

**Norway**

A Recommendation should cover practical measures. Of course, it will not be possible to include all imaginable measures.

(a) The reply is in the affirmative.

(b) (i) The reply is in the affirmative.

(ii) It is important that the accidents occurring in the different branches of industry, should be analysed with special regard to the question of causes.

The wood industry and the loading and unloading of ships are proposed. It seems doubtful, however, if a Recommendation should advise the undertaking of special research.

(c) All circumstances that have any influence on the event of accidents should be made the object of investigations by the authorities concerned, in collaboration with special institutions in the different spheres.

(d) The reply is in the affirmative.

**Poland**

In order that practical results in this matter may be reached, it would be desirable to indicate in the Recommendation the necessary measures for applying the principles laid down.
(a) In the first place the Recommendation should emphasise the need of organising constant and systematic research with a view to elucidating the causes of industrial accidents and to finding means of preventing them, account being taken of the various factors such as the nature of the work carried on and the human factor in relation to it. In view of the importance of this work, and in order to co-ordinate it in the different countries, it would seem insufficient to cause it to be carried out by technical institutions in the different industries; it should rather be entrusted to official State institutions with the co-operation of employers' and workers' organisations and technical bodies. It would also be desirable that the results of such researches should be communicated to the International Labour Office.

(b) (i) The Polish Government considers that the Recommendation should invite the States Members of the International Labour Organisation to compile and develop industrial accident statistics in their respective countries. International regulations dealing with the problem of accident prevention require that the steps taken with this object in the different countries should be closely studied as well as the object of the problem itself, i.e. the question of the industrial accident considered as a social phenomenon.

In order that the work of the different countries mentioned above should be co-ordinated on an international plan, the main lines and general principles on which the statistics are to be drawn up must be fixed. The information thus obtained should be communicated to the International Labour Office. On the basis of the information furnished it should be possible to decide what factors should first of all be taken into consideration with a view to preventing industrial accidents.

(ii) If positive results are to be obtained it would be desirable for the International Labour Office to devote particular attention to the above-mentioned question. If necessary, one of the Conferences of Labour Statisticians might even be consulted on the matter. Industrial accident statistics would have to be brought into harmony according to (1) definite industries, (2) causes of accidents, (3) degree and duration of incapacity for work involved by the accident, while the conceptions of (1) a frequency rate, and (2) a severity rate, would have to be made uniform.

Attention should first of all be given to accident statistics in specially dangerous trades such as the manufacture of explosives, a large number of chemical industries, the woodworking trade, etc.

(c) It would also be desirable to give special consideration to the diminution in the number of accidents resulting from
suitable technical installations, since these contribute largely to keeping down the number of accidents. On the basis of the figures thus drawn up the general principles to which technical installations in particular industries ought to conform should also be fixed.

(d) Particular attention should be given to the human factor in view of the fact that, as is shown by accident statistics, it plays a predominating part in this matter. The principle governing the design of safety appliances, namely, that the influence of the human factor should be as far as possible eliminated, is the best proof of the importance of the human factor in relation to safety.

In conformity with the above considerations, the following factors should form the subject of close examination — the relation between the number of accidents and the level of intelligence and education of the worker, fatigue, and hours of work and rest in relation thereto, skill, consumption of alcohol, age, etc.

**PORTUGAL**

The reply is in the affirmative. In view, however, of the difficulty of including in the Recommendation all the measures required for putting into operation the principle indicated in the preceding question, and if it is recognised as absolutely impossible to overcome this difficulty, a Recommendation should be adopted enumerating at least the general principles to be followed.

(a) This work should be carried out by an official State institution, without, however, dispensing with the co-operation of private institutions, particularly those which are concerned with industrial accident insurance.

(b) (i) The reply is in the affirmative. It is desirable to establish statistics of this kind, provided that they are drawn up on uniform bases for all countries, so that a comparative study may be made with accuracy. The International Labour Office should be asked to furnish these bases to the Governments.

(ii) The necessary information should be furnished by State institutions which are directly concerned with the subject. It is also necessary that private organisations of employers and workers should furnish all the exact and detailed information which concerns them.

The statistics should indicate the direction in which efforts for the prevention of accidents should be made.
(c) The reply to this question follows from those already given.

(d) In addition, the human factor must unquestionably be taken into consideration.

**Rumania**

The reply is in the affirmative.

(a) The reply is in the affirmative.

(b) (i) The reply is in the affirmative.

(ii) The Rumanian Government considers that statistical research should cover every kind of industrial activity by means of a questionnaire, which, while maintaining its essential character, should be modified for each special industry. The principal feature would be the degree of risk and the other features would be deficiencies in equipment, nature of work and circumstances of accidents.

It is also thought that a meeting of recognised experts in industrial accident statistics might be convened by the International Labour Office, with a view to arriving at uniform bases which would allow of a comparative study of national statistics and possibly of deciding the industries to be dealt with first of all by the statistics of the different countries. The resolutions adopted in 1923 by the International Conference of Labour Statisticians and in 1925 by the Congress of the International Statistical Institute might be taken as a basis of discussion.

(c) It would perhaps be necessary to examine the following points in connection with accidents: time of occurrence, systems of work, standard of skill of the worker.

(d) The reply is in the affirmative.

**Kingdom of the Serbs, Croats and Slovenes**

The Recommendation concerning the prevention of industrial accidents should also deal with all practical measures required for putting into operation the principle indicated for the prevention of accidents.

(a) Continuous research into the causes of industrial accidents is necessary, as well as into the ways in which the best methods of prevention may be found.
Continual attention to accidents and enquiry into their causes, together with the discovery of the best and surest ways of preventing them, is of the highest importance. This work should be carried out by official authorities, chiefly factory inspection services, or, under their instructions, by accident insurance institutions, or the competent organisations of employers or workers. These institutions should be required to submit periodical reports to the competent official authorities.

(b) (i) It is evident that an important contribution to the cause of accident prevention may be made by proper statistics of industrial accidents, which should be kept up to date on lines to be indicated by the International Labour Office, with the object of arriving at similar bases for purposes of comparison, which would be of great assistance in collating and applying the experience gained in other countries.

In view of the fact that work in the various industries is essentially different, each industry should be taken separately for this purpose.

(ii) As each industry should be taken separately, the most dangerous trades should be taken first, e.g. wood-working, metal-working, electrical, textile, skins and hides, paper, mining, transport, and building. No industry should be excluded, but the more dangerous trades should be taken first, and those where the risk is less should be arrived at gradually.

(c) Statistics should deal with the nature of the industry or its various divisions, that is to say, it should be ascertained exactly to what extent the accident is due to the nature of the industry itself, i.e. unprotected machines, various repairs to machines, erection of machines, examination of machines, lighting, purity of the atmosphere (gases or dust) in the workshop, hours of work, time of day or night, season of the year, temperature, payment at piece or time rates, rate of wages, etc.

(d) Factors relating to the worker himself must also be taken into consideration — is he physically and mentally capable of performing the work allotted to him without danger, on the assumption that all safety measures have been taken, and what circumstances due to the worker himself have led to the accident?

Special attention should be given to his daily mode of living — is he addicted to some vice or other, where does he live, what is his diet and is it sufficient, what is his previous history, where was he employed before his present engagement, what was his mode of living during that time and what were the conditions in that employment, what was his position, has he changed his occupation and with what success, what qualifications has he, etc.?
The human factor is one of the principal causes of industrial accidents, and therefore merits special attention. Apart from what has already been mentioned, great attention must also be paid to psycho-analytic research in the various industries.

Spain

Strictly speaking the reply should not be in the affirmative if the words "all practical measures" imply that the international scope of the Recommendation should be so wide as this. Taking the question in the sense that all practical measures imply that the Recommendation should contain those which are fundamental and of general application, however, and remembering that it is not a Draft Convention but a Recommendation which is under discussion, the Government's reply is in the affirmative.

(a) It is obviously desirable that in the first place the need should be emphasised of organising constant and systematic research both for elucidating the causes of industrial accidents and for discovering the best methods of preventing them. Such research should be undertaken by official institutions, that is to say, both those set up by the State or by public institutions (foundations, institutions with legal personality and their own resources, factory inspectorate, etc.) and those set up by the various branches of industry and organised with a view to studying their industrial interests.

(b) (i) The Recommendation should invite the States Members of the International Labour Organisation to study the future preparation of a Draft Convention on the statistics of industrial accidents with a view to fixing uniform bases enabling a comparative study to be made. This affirmative reply does not, however, imply that the practical difficulties involved in the preparation of uniform statistics are forgotten.

(ii) It is thought that the establishment of information on uniform bases should be limited. In the first place it is necessary that there should be a certain degree of similarity in the way in which systems of responsibility for accidents are organised and the manner in which they are enforced. This similarity might be obtained through the ratification of the Convention already adopted by the International Labour Conference. For the moment the Convention should be confined to those industries in which the majority of accidents occur in the various countries and to an endeavour to bring into harmony as far as possible the nomenclature adopted. It should therefore endeavour to secure the adoption of general expressions covering wide categories which would enable the variety of methods
in the internal administration of the various States to be taken into account. The work already done in this direction should be borne in mind, particularly the report of the Conference of Statisticians which was held at Geneva in 1923.

(c) and (d) Particular attention should be given to the human factor — age, sex, infirmity — as things which may contribute to an increase or decrease in the number of accidents. The various methods of practical organisation of work should also be examined, e.g. whether work is continuous or divided up during the day with appreciable periods of rest, automatic methods of work, and other similar features.

All technical research is desirable, since safety measures have to be adapted to the deciding causes of accidents, which are due not only to inadequate material equipment, but also to the nature of the work and physiological and psychological causes.

SWEDEN

In view of the reply given to the previous question, the only reply which can be given to the present question is in principle in the affirmative.

Some hesitation may be felt, however, as to the desirability of including without distinction in the Recommendation all measures which may be taken for the prevention of industrial accidents. Public intervention in this matter is already of such long standing, at all events in the majority of industrial countries, and the principles of public intervention are to-day so universally admitted and applied, that it is scarcely necessary now for the International Labour Organisation to enunciate them. It might also happen that the effect of a declaration of these principles in the Recommendation might be to turn attention and interest to some extent from more recent measures, most of which are covered by the appellation of the "Safety First Movement" and which also appear in the Recommendation. It is obviously desirable that the principles of general application referred to above should be maintained and developed, but in view of the undiminished or even increasing frequency of industrial accidents in many countries, it is of urgent importance that the new measures, as to which experience has already shown that hopes of their efficacy may be entertained, should be more widely and rationally applied.

Admitting, therefore, that attention should primarily be drawn to these new measures, it would appear either that the Recommendation should mention them alone, or, if such limitation appears inadmissible, that it should lay particular stress
upon them and explain them in greater detail. The older principles might also be mentioned, but merely as an introduction.

(a) An enquiry is generally held into the causes of accidents, at any rate in the case of serious accidents, with the object of fixing compensation, and the determination of the direct cause of the accident rarely presents serious difficulties. In contradistinction with the danger to health arising from certain forms of industry, it would appear that the majority of industrial accidents do not justify scientific research, nor do they lend themselves to research of this kind. It might, of course, be desirable in the case of certain occupations or certain appliances to organise research with a view to ascertaining the best methods of protection. Research of this kind should be made in collaboration by factory inspectors, technical institutions — where such exist — for the different branches of industry, representatives of the employers and workers concerned and the insurance institutions interested. The more important results of such research should be published by the International Labour Office, which might also endeavour to bring about co-operation between the various countries.

(b) (i) The reply is in the affirmative. Accurate and well-planned statistics of industrial accidents are obviously of considerable importance for ascertaining and preventing the risk of accident. In order to bring about international co-operation in the domain of safety, the interest of which is shown in the reply to the preceding question, it is undeniably desirable that an attempt should be made to bring about international uniformity in statistical methods.

(ii) Accident statistics, to be of any use for the protection of the workers, must be so drawn up as to make it possible to recognise the risks and as far as possible the causes of accidents for the various categories of machines and occupations. It is obvious that highly detailed statistics of this kind, the plan of which should be drawn up in collaboration with the factory inspectorate and persons of the necessary practical experience, will involve a great deal of work and considerable expense. It might consequently be necessary, while maintaining general accident statistics, to limit the detailed statistics to a relatively small number of kinds of work, for which some system of rotation might be observed. In selecting the trades with which statistics should first of all deal, it is thought desirable to take first of all into consideration those kinds of work which, as regards the number of the accidents and the nature of the injuries, present the greatest danger. Such a system would, on account of the way in which the various industries are distributed, lead
in all probability to widely differing results in the various countries. On behalf of the workers, it has been proposed to take as subjects for the statistics in question the mining industry, the iron and steel trades, engineering works, agriculture, forestry, including charcoal burning and the transport of lumber by river, saw yards, cabinet making, the wood pulp and paper industry, and the loading and unloading of ships. So far as Sweden is concerned, it might perhaps be desirable that the detailed statistics should first of all deal with forestry, including charcoal burning and the transport of lumber by river, the pulp and paper industry, saw yards and cabinet making.

(c) and (d) The circumstances affecting safety which may be attributed to the human factor should be considered, whether they are general or individual in character, as of extreme importance. It is only recently that these matters have received general attention, and, in conformity with what has already been said on the subject of the general contents of the Recommendation, there would appear to be reasons of special weight for assigning particular importance to these matters in the researches under discussion. In this connection, reference should be made, particularly as regards the phenomenon of fatigue, to the distribution and limitation of hours of work, the worker’s attitude and the nature of his movements during work, working rhythm, and as matters influencing rhythm the various systems of wage payment, as well as the selection of labour in the case of occupations in which safety calls for special qualities in the worker.

SWITZERLAND

The Swiss Government considers that a Recommendation may deal with the practical measures required for putting into operation the principle indicated in Question 1, but it would be going too far to say that it should deal with all such measures. The measures referred to cannot be uniformly recommended for all countries. So far from this being the case they should take account of the mentality of different races, the greater or less extent to which instruction has been developed in the different countries, their political and social organisation, the forms of industry which predominate, etc. In this sphere, as in many others, the introduction of uniform measures which do not take account of conditions of life in general may do more harm than good.

It is therefore thought that the Recommendation might deal with the practical measures required for putting into operation the principle indicated in Question 1, but that it
could not pretend to enumerate a complete list of such measures.

(a) It is obviously necessary that research into the causes of accidents should be undertaken. If really satisfactory results are to be obtained, such research should be entrusted to institutions with a wide range of activity, with a knowledge of all the accidents which may occur, provided with a staff of technical specialists and with adequate financial resources at its disposal. Prudence should be exercised in selecting these institutions. In some districts and in some countries, the most efficient service may be rendered by private institutions, while in others, special circumstances may indicate that official institutions are preferable. In any case close collaboration between the different institutions is desirable. In Switzerland a system of collaboration of this kind has yielded excellent results. In the case of the Swiss National Accident Insurance Fund, which is responsible under Article 65 of the Federal Sickness and Accident Insurance Act for the prevention of accidents in establishments liable to compulsory insurance, the Fund not only utilises its own services but also has recourse to the collaboration of the Federal factory inspectors, and in certain domains to private institutions such as the Swiss Association of Boiler Users for the inspection of boilers and high pressure containers, and the Swiss Heavy Current Inspectorate for Electrical Installations, etc. In the same way the Swiss Contractors’ Association, in agreement with the National Fund, has created a safety service which, on behalf of the Fund, supervises and endeavours to promote accident prevention in establishments affiliated to the Society.

In the opinion of the Government, the Recommendation ought to emphasise the necessity of constant and systematic research for elucidating the causes of industrial accidents and for discovering the best methods of preventing them, while leaving the States free to select the institutions, State or private, to which these duties should be entrusted.

(b) (i) In the absence of statistics, it is impossible to deal effectively with accident prevention. Statistics are useful, first of all for bringing to the notice of indifferent persons the importance of accident prevention, and secondly, for ascertaining the branches in which intervention is called for. The Government consequently agrees that the States Members of the International Organisation should be invited to compile and develop industrial accident statistics, and to keep in touch with the International Labour Office in order to arrive at uniform bases.

As regards the establishment of international statistics, there are certain directions in which the necessity of such statistics is peculiarly felt. This is particularly the case in the
transport industry and more, especially in railways and navigation. The activities carried on in this industry are of international extent, while the only accident statistics available are drawn up by individual countries. It is therefore desirable that the international information which would result from statistics on uniform bases should be available.

On the other hand, it is thought impossible at the moment to decide whether the subsequent preparation of a Draft Convention should be kept in view. This is a problem which cannot be dealt with at the present moment.

(ii) The Government has no suggestion to make. In any case it would be difficult to make suggestions at the present time, since one of the objects of the Recommendation is to collect the results of experience which would then show in what directions international accident statistics may develop.

(c) At the present time endeavours are being made to diminish the risk of accident by improving machine construction — particularly machine-tools — in order to make them less dangerous. This form of research should be further extended. It cannot, of course, result in the entire elimination of every kind of danger. The construction of protective devices to shield the workers from accidents as far as possible must also be studied. It is frequently observed that certain work is carried on in a manner which exposes the workers to dangers which might be easily obviated without any injurious effect as regards the work. In the same way the general organisation of factories and yards constitutes another extensive field of enquiry. The following points should also be mentioned as of importance for safety: hours of work, intervals, access to the place of work, organisation of work in general, state of workplaces, general hygienic conditions, the physical and mental constitution and capacity of the workers.

These various features might be mentioned in the Recommendation as possible subjects for scientific research into the prevention of industrial accidents.

(d) An important part in the case of accidents is played by the human factor. This is recognised in the same way in all countries. Among the effects of the human factor may be mentioned the high frequency of accidents in the case of young workers and of workers newly engaged, and consequently in establishments where frequent changes in staff occur. Its influence is also to be found in the increase in accidents in proportion to the increase in fatigue, in the repetition of accidents in the case of certain individuals, while others working in the same conditions escape them, etc. From this standpoint, an important part may be played by psycho-technical examinations and an improvement in the methods adopted.
For the foregoing reasons the Government is of opinion that the Recommendation should draw the attention of the States Members to the importance of the human factor, and of scientific research thereinto with the object of preventing accidents.

**Uruguay**

(a), (b), (c) and (d) The Recommendation should embody the principle of the obligation referred to in the preceding reply and should successively mention the most suitable means by which it might be fulfilled.

In the opinion of the Ministry the attention of the Governments of the States Members should be drawn to the advantage of laying down, by means of special laws, the principle that the employers are bound to prevent industrial accidents and to adopt with this object methods of protection and safety. Such legislation would apply to all industries in which there was danger of accident. (Uruguayan Act of 21 July 1914, Article 1.)

As a complement to the laws recommended, regulations should be issued laying down the safety rules to be adopted in each industry or group of industries corresponding to the dangers existing. (Article 1 of the Act mentioned above.) Such regulations should be revised from time to time with a view to including the reforms suggested by experience and by the progress made. (Article 1 of the Act.)

It is also desirable that the Recommendation should include the principle that the public authorities, with the help of the interested parties (employers and workers), should investigate every accident with a view to ascertaining clearly its causes and deducing, from direct observation of the facts, the methods which appear most effective for avoiding a repetition of the accident in the future.

The Ministry also agrees that the States Members should be invited to organise and develop a service of accident statistics, in agreement with the International Labour Office, in order that the facts and figures thereby obtained should be submitted to comparative examination. In particular, it is of great importance that each country should be in possession of its own statistics, since this is of undeniable value in directing and localising the work of the inspectorate. In Uruguay, a technical service in the Ministry of Labour, which is responsible for supervising the Safety Act of 21 July 1924, bases its activities on the results of statistics, by means of which the officials are able to form an opinion of the results obtained through applying safety measures, and to concentrate their attention on industries in which accidents are most frequent, with a view to reducing their number.
The Ministry is also of opinion that the human factor should be given special attention. It is possible, through the employment of efficient methods of vocational guidance and selection, to eliminate so much of the risk as can be attributed to the physical condition or to the careless or slovenly disposition of the worker. Consideration might also be given to the advantage of testing the skill of all persons called upon to control or guide machinery or apparatus where mistakes might be a source of danger.
PART A. I. QUESTION 3

Co-operation of interested parties

Do you consider that the Recommendation should contain a clause emphasising the great importance of co-operation between all the parties interested in the prevention of industrial accidents, including employers and workers, and inviting the States Members to do all in their power to develop and encourage such co-operation?

AUSTRIA

Attention is drawn to the Central Accident Prevention Office which exists in Austria and to which reference has already been made.

BELGIUM

It is obviously desirable that there should be careful and well thought-out collaboration between workers and employers. The experience acquired by the workers at their work should enable them to make useful suggestions, which should be taken into account as far as possible in devising safety measures.

CANADA

Alberta.

It is considered that if accident prevention is to be effective there must at all times exist the fullest measure of co-operation between all the parties interested.

Manitoba.

The reply is in the affirmative.

Quebec.

The reply is in the affirmative.
Saskatchewan.

The reply is in the affirmative, for the reason that industrial accidents being an economic loss, the cost of which has eventually to be met by the community at large, the interest of all the parties interested should be sought.

Czechoslovakia

The Government agrees that the Recommendation should emphasise the great importance of the co-operation of employers and workers in the prevention of industrial accidents.

Denmark

The reply is in the affirmative. Co-operation between all the parties interested in the prevention of industrial accidents should certainly be instituted, both in the factory and outside.

As regards co-operation in the factory between employer and workers, it must nevertheless be remembered that the responsibility for the upkeep of the factory and other conditions of work falls in the first place on the employer.

As regards co-operation outside the factory, attention must be paid to the importance of providing to the greatest possible extent for collaboration between institutions for the protection of the worker (factory inspection, etc.) and institutions for accident compensation, e.g. by inviting such institutions to inform the factory inspectorate as soon as possible of the accidents which may come to their notice.

Estonia

The reply is in the affirmative. The co-operation of all the parties concerned is essential for the success of accident prevention.

Finland

As it is the worker who is the victim of an accident, it is quite natural that it should be desired to associate him with the work of accident prevention. In order that his co-operation may be secured, his attention must first be drawn by effective and
suitable means to the danger of accidents while at work. The workers must be made to understand the different possibilities of accidents, and they must be told of the part which the worker may play in this connection. It is particularly necessary that the workers should be given the necessary instructions for carrying out their work. They must be accustomed to perform their work in a rational way and to observe the necessary order in the factory. The workers must be educated in this way until they have acquired the habit of conducting themselves properly during work and in the factory. The education of the workers in this matter should also be organised outside the factory. A number of useful measures have already been taken with this object, e.g. the formation of safety committees in factories with workers as members.

**FRANCE**

It would appear desirable to include a clause of this kind in the Recommendation, as the information to be furnished by the various parties concerned, and particularly by employers and workers, might be of great interest. In this connection attention may be drawn to the institution in France in the larger establishments of safety committees composed of engineers, foremen and workers in the establishment. These committees meet from time to time to enquire into accidents which have occurred and the practical methods of avoiding their repetition.

**GERMANY**

The reply is in the affirmative.

**GREAT BRITAIN**

This has been covered by the Resolution of the 1928 Conference.

**HUNGARY**

The co-operation of all the parties interested is indispensable to the success of accident prevention. The State factory inspectorate can only perform useful work when it has succeeded in gaining the confidence of the employers and workers and interesting them in its work. The greatest efforts which the employers have made have only been partially successful,
and they have understood that without the confidence and co-operation of the workers they are unable to advance beyond a certain point.

**INDIA**

*Note: See note at head of reply to Question 1.*

The Government of India, while accepting the principles underlying these questions, wish to make it clear that the application of these principles on a general scale would not, for the present, be practicable in India owing to the general illiteracy of the workers and their present unorganised condition.

**IRISH FREE STATE**

The Recommendation should contain a clause emphasising the great importance of co-operation of all parties concerned, for without this co-operation the object in view cannot be achieved.

**JAPAN**

The reply is in the affirmative.

**LATVIA**

The Recommendation should contain a clause emphasising the importance of co-operation between all the parties interested in the prevention of industrial accidents, including employers and workers.

**LUXEMBURG**

The prevention of industrial accidents is not only an economic problem, but also a social problem, and of interest as such not only to the public authorities but also to the parties directly concerned, i.e. the employers and the workers. Close collaboration between all the parties interested in prevention of industrial accidents is consequently of the highest importance. Such co-operation might with advantage be furthered by educational institutions, institutions for vocational guidance and for the placing of apprentices in employment.
Netherlands

The reply is in the affirmative.

Norway

Yes. Special attention is drawn to the importance of collaboration between the Public Inspection Service and insurance institutions.

Poland

A clause of this character could not but contribute to the furtherance of the principle already embodied in the reply to Question 1. It is not sufficient, however, to lay down the general thesis of the collaboration of social factors with Governments, but national legislation should also lay down the methods and forms of collaboration best suited to the local conditions of a particular country.

Portugal

The co-operation of the parties interested is admittedly difficult to secure, but would undoubtedly be of the highest importance.

Rumania

The reply is in the affirmative.

Kingdom of the Serbs, Croats and Slovenes

The Recommendation should contain a clause emphasising the importance of co-operation between the employer and the worker. This co-operation is necessary for two reasons:

(i) The employers and workers may contribute very considerably by their experience to a decision as to the measures necessary to prevent accidents.

(ii) Co-operation of this kind arouses the interest of employers and workers in accident prevention. The Recommendation should also request the States to do all in their power to develop and further such co-operation.
SPAIN

The reply is in the affirmative, since it is only by means of the collaboration of all the interested parties that really effective action can be expected.

SWEDEN

Permanent and systematic co-operation between the parties interested is extremely important for the prevention of accidents. It might be desirable in this connection to lay particular emphasis on co-operation between employers and workers, which is recognised by the Safety First Movement as of fundamental importance. In accordance with the statements already made, the Swedish Government is of opinion that particular stress should be laid in the Recommendation on the desirability of such co-operation.

SWITZERLAND

Progress in accident prevention can only be made with the collaboration of all the parties concerned — particularly the employers and the workers, who are the two parties most directly affected by the question. It is particularly necessary that the worker should not remain indifferent to the question of safety and the improvements to be made in this direction. One respect in which the interest of the worker may be enlisted is by taking account if his wishes and proposals and by adopting safety methods and apparatus which do not complicate the work to no purpose.

The Swiss Government therefore considers that the Recommendation should emphasise the great importance of co-operation between all the parties interested in the prevention of industrial accidents.

URUGUAY

It is of great importance that the action of the public authorities in the matter of accident prevention should benefit from the co-operation of employers and workers, whose experience can be of invaluable assistance in this work of humanity.

In the opinion of this Department, such co-operation might be effectively and profitably arranged by means of the organisation of works committees or industrial committees, consisting of representatives of the workers and employers, which would
be required permanently to supervise the machines and safety appliances. This procedure, which has been tried with remarkable success, is carried out in Uruguay in the following manner:

(a) Joint safety committees are appointed in the larger industrial establishments. In collaboration with the inspector, to whom their opinions are transmitted, these committees succeed in reducing the danger of accidents to a minimum. When an accident of any kind occurs they investigate its cause and examine the best means of avoiding any repetition. The management of the undertaking, on its side, prepares detailed statistics, which are placed at the disposal of the committee and the Department of Labour. Individual caution is also stimulated by means of competitions between the different sections of the undertaking, the successful department being that which has had for the whole year the smallest number of accidents, taking into account their gravity as well.

(b) In the case of groups, formed for the most part of establishments where a small number of workers is employed, and where on this account it is impossible to set up a works committee, the Department of Labour has succeeded in instituting trade committees, the duties of which are similar to those enumerated in the preceding paragraph, but which cover the whole of the industry.

It is considered by this Department that the greatest importance attaches to the collaboration of Governments through specialised services. It is thought desirable to give a brief account of the way in which such services are at present organised in Uruguay.

Under the Act of 21 July 1914 and the current Finance Act, accident prevention is handled by a special section of the Department, known as the Industrial Accidents Section. For each industry or group of similar industries special regulations are issued, indicating with sufficient clearness the safety measures which should be adopted. These regulations deal with establishments and industries in general, woodworking trades, metal trades, building and demolition, use of explosive substances, mines, quarries, railways, maritime work. The inspectors who supervise the application of the law and regulations possess a certain amount of independence, which is not, however, permitted to interfere with the principle of administrative control. They may impose penalties directly for infringements of the law, allowing a period of three days for payment of the fine, after which they apply for a legal order.

Each accident is made the subject of a report by the inspector, who observes the following procedure: accidents which come to the notice of the police are reported to the Department, which immediately sends an inspector to investigate the causes
of the accident, with a view to determining the employer's responsibility and the means to be adopted in future to ensure safety. When it is found that there has been an infringement of the law or regulations by the employer, a fine of 50 pesos is imposed and the fact is reported to the State Insurance Board, which may hold the employer responsible for the injury. This amounts to making the employer responsible for the payment of compensation, notwithstanding his insurance policy and the premiums which he has paid. As wide executive powers as possible have also been given to the inspectors. With this object and with the collaboration of the police, the inspector may call for the suspension of any activities in carrying on which the safety regulations are not observed. The Department also endeavours to prevent accidents by making the workers themselves acquainted with the best ways of carrying on work without danger. With this object lectures are given by the inspectors in the larger factories, and posters with appropriate reading matter are affixed in workplaces.
PART A. I. QUESTION 4

Employers' responsibility

Do you consider that the Recommendation should contain provisions to the effect that the responsibility for taking protective measures and in particular for the equipment and upkeep of workplaces rests with the employers?

AUSTRIA

In view of the fact that the application of safety measures and the arrangement and maintenance of each factory are matters exclusively for the employer (the occupier of the factory), the responsibility for the matters referred to can only rest upon the employer.

BELGIUM

The reply is in the affirmative. It is necessary, however, that the measures prescribed in the interests of the workers should be scrupulously observed by the latter.

CANADA

Alberta.

The existing legislation in this Province places upon the employer the responsibility for the safeguarding of equipment.

Manitoba.

The reply is in the affirmative.
Quebec.

The reply is in the affirmative.

Saskatchewan.

The reply is in the affirmative, for the reason that most Workman’s Compensation Acts make provision for merit rating of employers, whose efforts are conducive to the reduction of industrial accidents in their establishments.

Czechoslovakia

The responsibility for taking protective measures, and in particular for the equipment and upkeep of workplaces, should be laid on the employers (Article 74 of the Industrial Code and Article 102, para. 9, of the Industrial Act for Slovakia and Sub-Carpathian Russia). As regards the maintenance of workplaces in a suitable state, the responsibility for the measures required should rest both on employers and workers.

Denmark

The reply is in the affirmative. See answer to Question 3. Under Article 6 of the Danish Factory Act of 29 April 1913, it is expressly laid down that the employer is responsible for organising the place of work and the means of access thereto in such a way that adequate protection for health, life and limb of the workers is afforded, both during their work and while they are at the place of work. In addition to this responsibility, the employer might also be required to give adequate instruction to each worker as to the dangers of his occupation and the measures which he should observe in his work in order to avoid accident as far as possible.

Estonia

The reply is in the affirmative.
FINLAND

In Finland, as in numerous other countries, safety legislation requires the employer to see to the safety of work in his factory. As the principle of the employer’s responsibility is already embodied in several national laws, an affirmative reply must for this reason also be given to this question.

FRANCE

It appears essential that the Recommendation should contain provisions to this effect, as there would otherwise be a danger of its being of no effect. In this connection it may be observed that the French law (Labour Code, Book II, Part II, and Regulations made thereunder) requires employers under penalty to take measures with a view to preventing the accidents to which their staff is exposed.

GERMANY

The employer’s responsibility must extend not only to the workplace, but also to the equipment therein, such as machines, tools, apparatus, etc., and should also cover competent management (this is already provided for to some extent in German legislation).

GREAT BRITAIN

This is the main principle underlying British safety legislation and presumably the legislation of most other industrial countries. The British Government do not see what exactly is the object of embodying it in a Recommendation or Resolution. On whom except the employer could the responsibility rest?

HUNGARY

To include the principle of occupational risk in all national laws on accident insurance amounts in a general way to establishing the employer’s responsibility. This responsibility implies the duty of the employer to take preventative measures. It is in the nature of things that this duty consists firstly in arranging, maintaining, equipping and working the factory according to rules which are recognised as just.
INDIA

*Note: See note at head of reply to Question 1.*

The reply is in the affirmative.

IRISH FREE STATE

The Recommendation should contain provisions placing the responsibility on the employer for the provision of protective equipment. Under the Factory and Workshop Acts and Statutory Regulations in operation in Saorstat Eireann the onus of safeguarding the life and limb of workers is placed on the occupiers of the factories and workshops. There is, also, an obligation placed on the workers concerned to make use of the safety measures provided, e.g. guards, fencing or protective clothing. The Government is of opinion that a reference to such an obligation should be contained in any Recommendation proposed for adoption by the International Labour Conference.

JAPAN

The reply is in the affirmative.

LATVIA

The Recommendation should contain provisions to the effect that the responsibility for taking protective measures, and in particular for the equipment and upkeep of workplaces, rests with the undertakings as provided by national legislation.

LUXEMBURG

It is an essential part of accident prevention that the responsibilities of the parties directly concerned should be defined. If the employers on their side are obliged to take safety measures, and, in particular, to equip and maintain their workplaces, the workers have also to contribute to a large extent to the success of the safety measures taken in their own interest.
NETHERLANDS

The reply is in the affirmative.

NORWAY

The reply is in the affirmative.

POLAND

No doubt can be felt as to the principle of the employer's responsibility for the upkeep of the factory, the supply of safety appliances and the maintenance of workplaces in a condition of security for the workers. It would, however, be desirable to examine the effect on the question of responsibility of failure on the part of the workers to observe safety regulations, or their failure to utilise safety appliances furnished by the employer. It is thought that there might be cases where, in addition to the fault of the worker who fails to observe safety regulations, the employer might also be guilty of having failed to inspect the state of the appliances and installations and to check their use by the workers.

PORTUGAL

Generally speaking, the responsibility referred to cannot lie solely on the employers. With regard, however, to the organisation and equipment of workplaces, their responsibility should be specially recognised.

RUMANIA

The reply is in the affirmative.

KINGDOM OF THE SERBS, CROATS AND SLOVENES

The responsibility for safety measures, and in particular for increasing the size of the factory and maintaining it in good condition, should rest on the employer. If it is proved in any particular case that the employer had done everything in his power to prevent the accident, and that he is in no way to blame,
then the responsibility should rest on the injured person if by refusing to carry out his employer's orders, or by his own negligence or lack of caution, he has brought about the accident.

According to section 31 of the Workers' Protection Act in this country, proprietors of factories are required to maintain workshops, machines and tools in such condition that the life and health of the workers are safeguarded, and to see that machines and parts of machines which are dangerous to touch are fitted with means of protection. An employer who neglects to carry out these duties is answerable under the Workers' Protection Act, and may be liable to penalties under the penal code as well as for damages under the civil code.

Spain

The reply is in the affirmative, and the only doubt which may arise would be that relating to the responsibility of the employers considered individually or as constituting an association for a particular industry. In both cases the responsibility for taking preventive measures should fall upon the employers, the difference being that the financial consequences of failure to do so would rest in the first place on the individual employers, and in the second place on the corporation or association to which they belonged, if the latter is authorised to compel its members to adopt preventive measures.

Sweden

In view of the fact that the principle referred to in this question has already been to some extent enunciated in the Recommendation adopted by the International Labour Conference in 1923 on the general principles of factory inspection (V. 17a), and that at the present moment the principle is universally admitted, it is not thought necessary to make a special provision to this effect in the Recommendation.

Switzerland

It is desirable that the Recommendation should contain provisions to the effect that the employer is responsible for the prevention of accidents in his establishment. Naturally, however, the Recommendation must be confined to the statement of a general principle and cannot deal with the question of the legal
effects of the employer's responsibility, the solution of which question depends largely on the legal position in the different countries.

**Uruguay**

The reply to the preceding question renders possible an affirmative answer to the present one. It is desirable that the employers' enthusiasm should be stimulated. Among the various methods which it is possible to imagine with this object, one of the most effective is that of refunding part of the insurance premiums to the proprietors of establishments in which the number of accidents is less than that anticipated when fixing the amount of the policy. Under such a system the premium would be composed of two parts: a fixed portion which would be made to correspond with the average risk, and a returnable portion which would be repaid to the employer when the number of accidents occurring during the currency of the policy should be less than the average figure. This principle might be embodied in the Recommendation, and attention might be drawn to the desirability of having the conduct of employers or managers taken into account by insurance institutions or companies in fixing the respective premiums.
PART A. I. QUESTION 5

Workers' responsibility

Do you consider that the Recommendation should also draw the attention of the workers to the fact that by their conduct in the workplace they can and should contribute to a large extent to the success of protective measures, and that it accordingly rests with the workers' organisations to co-operate in the education of their members in order to safeguard them from industrial accidents?

Austria

The best safety measures are useless when they are not observed by the workers. It is therefore desirable to refer to the advantages of effective co-operation of workers' organisations.

Belgium

The reply is in the affirmative.

Canada

Alberta.

It is considered that the Recommendation should emphasise the necessity for the workers by their conduct in the workplace to supplement the efforts of the employer to prevent accidents and to co-operate in the education of their members for the prevention of industrial accidents.
Manitoba.

The reply is in the affirmative.

Quebec.

The reply is in the affirmative.

Saskatchewan.

The reply is in the affirmative. Experience has proved that co-operation on the part of the manual worker is absolutely essential to success of protective measures in safeguarding against industrial accidents.

Czechoslovakia

As the natural complement to the duties of the employers mentioned above, it would be desirable to mention the principle that it is the duty of the workers to maintain workplaces in a satisfactory state, and so to conduct themselves when in the factory as to render it possible to prevent industrial accidents. In Czechoslovakia, under Article 74 (c) of the Industrial Code and Article 102 of the Industrial Act for Slovakia and Sub-Carpathian Russia, the workers may be required to observe certain rules laying down the manner in which they are to conduct themselves with a view to safeguarding them from injury and disease. Moreover, the factory regulations in force in factories and workshops employing at least 20 workers contain provisions to the effect that it is the duty of the workers to utilise all the equipment and appliances provided for their protection against accidents and to observe all the regulations issued with this object.

Denmark

Experience shows that accidents are frequently caused by some lack of caution on the part of the worker. It would therefore be desirable for the Recommendation to mention the importance of the conduct of the workers as regards safety. In this respect the workers' representatives may exercise considerable influence over the workers.
ESTONIA

This would be highly desirable.

FINLAND

The reply to this question is also in the affirmative. The question is closely connected with Question 3. Finnish legislation not only draws the attention of the workers to the way in which their conduct in the workplace may influence the occurrence of accidents, but they are also required to pay scrupulous attention, while at work, to the regulations and instructions given them with a view to avoiding accidents. They are also prohibited from breaking or removing safety and protective devices, and they are required to inform the foreman immediately they notice any defect in the protective appliances. The workers are also entitled to choose from their number representatives to be present when a factory inspector visits the factory. It is also desirable that the Recommendation should call upon the trade unions to instruct their members on methods of avoiding accidents.

FRANCE

The reply is in the affirmative. The education of the workers may help to a large extent in the success of safety measures.

GERMANY

The workers should be required to co-operate in accident prevention by correct conduct in the factory. The workers' organisations might be the most suitable agents for the work of education, as well as for co-operation in the matter as a whole.

GREAT BRITAIN

The part that the workers themselves can play in the prevention of accidents is of the first importance. This was dealt with in the Resolution of the 1928 Conference, and would seem out of place in a Recommendation addressed to Governments.
HUNGARY

It is unquestionable that one of the difficult problems of accident prevention is that of securing the confident co-operation of the workers themselves. The latter sometimes go so far as to dispute the statistical fact that the majority of accidents are caused by the lack of caution of the injured persons.

It would be very desirable, therefore, for the International Labour Conference to lay emphasis on the fact that accidents are frequently provoked by the workers themselves, and that this matter can only be remedied if the workers do their best for the success of preventive measures. The workers must be specially educated in this matter and their organisations should co-operate in this work. It is therefore desirable that the Recommendation should mention that the prevention of industrial accidents should be considered apart from any political or economic question.

Whatever opinion may be held as to the real or imaginary conflict between the interest of the workers and that of the employers, their interests are undoubtedly identical here, and in order that the workers should be made to understand this point, it is absolutely necessary that the organisations which are at the head of the workers' movement should be convinced of its truth and should do all they can to spread that conviction.

Apart from the duty of influencing the frame of mind of the workers, the workers' organisations have an important duty in the technical education of their members. Instruction in methods of preventing accidents must be embodied in the programmes of courses of instruction and lectures organised from time to time, and an endeavour must also be made to enable the workers to take advantage of all the other occasions on which they may learn something of the subject.

INDIA

Note: See note at head of reply to Question 1.

See reply to Question 3.

IRISH FREE STATE

The Recommendation should draw the attention of workers to the fact that their conduct can and must contribute to a large extent to the success of protective measures and that
workers' organisations should co-operate in the education of their members in order to safeguard them from industrial accidents.

**JAPAN**

The reply is in the affirmative.

**LATVIA**

See reply to Question 3.

**LUXEMBURG**

See reply to Question 4.

**NETHERLANDS**

The reply is in the affirmative.

**NORWAY**

The reply is in the affirmative.

**POLAND**

It goes without saying that, notwithstanding the most effective modern safety measures, the conduct of the worker will remain of the greatest importance as regards his safety and that of the establishment, which is frequently a question of public security.

In view of the great and frequently decisive part played by the conduct of the worker in the factory as regards accident prevention, suggestions on this subject would be highly desirable.

Since, however, there is difficulty in ensuring that men who have no knowledge of safety questions should understand the necessity of observing certain regulations, and since failure to observe the regulations may endanger the life and health
of the workers, it is essential that workers' organisations should give special attention to the question of improving the education of their members in safety matters.

PORTUGAL

The reply is in the affirmative. It is desirable that the attention of the workers should be drawn to the wisdom of the measures taken for the prevention of accidents and that they should contribute to their success, particularly by reason of the fact that a large share of the responsibility may be placed on their shoulders. Workers' organisations should also contribute effectively to this object, particularly in the case of those organisations which are most intellectually developed.

RUMANIA

The reply is in the affirmative.

KINGDOM OF THE SERBS, CROATS AND SLOVENES

Safety measures are laid down with a view to protecting the workers from industrial accidents, and the workers should therefore be acquainted with them. It is the duty of the employer and his managing staff to see that the workers are made acquainted with the safety measures in the factory, and it is the duty of the trade corporations (workers' organisations and other institutions) to give special attention to the education of the workers. Only those workers who are properly instructed are able to appreciate the value of their own lives and those of their comrades, and to realise the importance of safety measures. The workers should be instructed on these lines in schools and in their organisations, in order that they may realise that they themselves are required to take every precaution to safeguard their own lives.

SPAIN

The reply to this question is also in the affirmative. Corresponding to the employers' responsibility, there is a moral responsibility on the workers regarding the adoption of safety measures, in so far as the conduct of the workers may contribute
to a greater or less extent to the efficacy of these measures. The education of all concerned is of importance in connection with the protection of the workers from accidents, and is one of the means which in the long run is productive of the best results.

**Sweden**

It is true that in various countries, and particularly in Sweden, the workers are legally obliged to co-operate in the prevention of accidents, but complaint is made that the interest which they take in this co-operation is insufficient. One of the essential aims of the Safety First Movement is therefore to improve this undesirable state of affairs, and to ensure that workers give evidence in their work of vigilance, caution and forethought. The headquarters of the Central Workers' Organisation in Sweden is in favour of an affirmative reply to this question, but points out with regard to the co-operation of the workers' organisations that the Government should place at the disposal of the organisations suitable publications for distribution among the workers, and should organise, possibly with the co-operation of local authorities interested, safety exhibitions.

It follows that the reply of the Swedish Government is definitely in the affirmative.

**Switzerland**

In reply to Question 3 the opinion of the Swiss Government regarding the co-operation of the workers in the prevention of industrial accidents was stated. It is not sufficient, however, that the workers should participate in the study of suitable methods of diminishing the number of accidents. They must also conform to the measures taken and must invariably conduct themselves in such a way as to avoid accidents.

It is therefore desirable that the Recommendation should draw the attention of the workers to this point, and should further draw the attention of workers' organisations to the part which they may play in inducing their members to do all in their power to avoid accidents.

**Uruguay**

It is desirable that the Recommendation should draw the attention of the workers to the fact that by their conduct they
may cause an increase or decrease in the number of accidents. The trade unions are among the most suitable organisations by which this duty can be successfully carried out. In the opinion of this Department attention should also be given to visual propaganda and lectures by inspectors in industrial centres, with a view to awakening and training the safety spirit in the workers. The employers and the insured persons may co-operate in this work by means of competitions and prizes for the establishments which are distinguished by their safety measures.
PART A. I. QUESTION 6

Instruction in Accident Prevention

Do you consider that, in order to further the co-operation between all the interested parties referred to in Question 3 above, the Recommendation might usefully invite the States Members to take the following measures:

(a) To encourage, with a view to educating the people, instruction in the problems of the prevention of accidents, including first-aid hygiene, in elementary schools and continuation schools;

(b) To see that pupils in technical schools and polytechnics receive adequate instruction in methods of accident prevention, and that their attention is drawn to the importance of accident prevention both from the economic and moral standpoints, so that when they come subsequently to hold posts in industry they may pay special attention to the work of accident prevention;

(c) To maintain the interest of pupils in accident prevention after they have left school and entered industry, by means of lectures, cinema films, and visits to undertakings, and to encourage the creation of safety museums and the giving of practical instruction in them;

(d) To increase the contribution to the furtherance of accident prevention which can be made by methods of vocational guidance and selection, by encouraging scientific research into these methods and their practical application?
Austria

Children and young workers who have received adequate instructions will give evidence in practice of a better understanding of special safety measures and pay greater attention to the adoption of such measures.

It is thought specially important that instructions in safety problems and first aid should be given in technical schools and polytechnics, since the pupils in these schools will be called upon to deal practically with these questions in later life, and special comprehension and exemplary procedure as regards safety must be required from senior technical employees as compared with the workers.

In Austria instruction in safety problems is combined in the elementary and secondary schools with instruction in hygiene and physiology. In polytechnics special lectures on practical problems of protection, industrial hygiene and social and technical problems are given in the winter and summer terms. Numerous visits to factories and industrial establishments are another means of directing the attention of students to safety measures.

Experience shows that the safety sense becomes blunted through permanent contact with danger, and it is therefore necessary that interest in safety should be continually reawakened by all suitable means, such as lectures, the cinematograph, safety posters and visits to safety museums.

The efforts exerted for safety can also be seconded through vocational guidance and selection.

Belgium

(a) The reply is in the affirmative. Only general principles, however, should be dealt with.

(b) The reply is the same as to (a).

(c) The reply is in the affirmative.

A travelling workshop museum fitted up in railway carriages would appear to be the most suitable method of reaching the end in view.

(d) The reply is in the affirmative.
Canada

Alberta.

It is considered that the measures suggested in paragraphs (a) and (b) are useful; particularly when followed up by the measures suggested in paragraphs (c) and (d).

Manitoba.

(a) (b) (c) and (d). The reply is in the affirmative.

Quebec.

The answer to the question as set forth is in the negative.

Saskatchewan.

The reply is in the affirmative.

(a) and (b) Instruction with regard to the economic loss resulting from industrial accidents would be of value, also first-aid hygiene in the reduction of serious after effects in minor accidents would be useful.

(c) and (d) From experience gained in the offer of free instruction in first aid, it is considered that it would be difficult to put these propositions into effect.

Czechoslovakia

(a) The Recommendation should invite the States Members to arrange for instruction in the problems of accident prevention and first-aid hygiene in the elementary, secondary, and continuation schools, the normal schools of education, the agricultural trade schools, etc.

(b) The principles of accident prevention should also be taught in industrial schools and higher technical schools, polytechnics, etc., since it is in these schools that training is given to foremen, engineers, and proprietors of industrial establish-
ments, who have to see that the workers continue their work so far as possible without injury to their health and their working capacity. In particular, when excursions of pupils from these schools to industrial establishments are arranged, suitable attention should be given to questions of safety and accident prevention.

(c) and (d) The States Members should also be requested to maintain the interest of pupils in accident prevention even after they have left school and entered industrial life by means of courses of instruction, the cinematograph, visits to factories, the encouragement of safety museums, etc. It would also be desirable to encourage interest in accident prevention in young workers' organisations and workers' schools by means of broadcasted lectures, lantern lectures, press articles on accidents, posters, posting up of safety regulations, etc.

With a view to accident prevention it would also be desirable that apprentices and newly engaged workers should be suitably instructed when they start work, and that workers who will be called upon to carry out particularly dangerous work should be carefully selected.

**DENMARK**

(a) The Recommendation might also draw attention to the advisability of encouraging as far as possible instruction in elementary schools in the problems of the prevention of accidents and first aid.

While there is little advantage, nor is it really possible, to give children of that age a detailed idea of all the dangers present in the various industries, it would nevertheless be useful in elementary schools in the country, to instruct children in the dangers attending agricultural machines.

(b) It would certainly be useful if the Recommendation mentioned the utility of giving instruction to pupils in technical schools and polytechnics in methods of accident prevention. Such instruction should, however, not only be given in the above-mentioned establishments, but in every school in which instruction covers practical subjects, e.g. in schools of agriculture. Such instruction could give an idea of the special dangers attending each industry.

(c) The methods here mentioned for maintaining the interest of pupils in accident prevention might usefully form part of the instruction referred to under (b), but this would undoubtedly be of less importance after the pupils in question have entered practical life.

(d) The reply is in the affirmative.
Estonia

The reply is in the affirmative.

Finland

(a) As protection from accidents is largely a question of the education not only of the workers but also of other members of the public, it would be natural for such instruction to be given in elementary and secondary schools, where instruction in the best means of avoiding accidents might be given either as an independent subject or at least in connection with another appropriate branch.

(b) In order to arouse the necessary interest in the safety question in industrial establishments and workplaces, it is necessary that the foremen and engineers employed in these establishments should already be made familiar, while attending technical schools and polytechnics, with accidents and how to prevent them. While at school, they should also receive special instruction in the technical methods of protection.

(c) The reply is in the affirmative.

(d) Experience has clearly shown that vocational guidance and selection are of the highest importance as regards safety in many industries. It is therefore desirable that the development and practical application of scientific research into vocational guidance and selection should be recommended.

France

(a) Some uncertainty may be felt as to whether instruction into accident prevention should properly be included in elementary education. The curricula, so far at least as France is concerned, are already heavy, while the pupils have practically never seen a machine or moving appliance in operation, and are too young to derive benefit from instruction in the prevention of industrial accidents.

The case may be different in continuation schools, where apprentices and young workers are concerned.

(b) On account of their age and the general knowledge which they have obtained, together with the work which they intend to undertake on leaving school, pupils in the schools in question may derive great benefit from courses of instruction in accident prevention. It is consequently desirable that
these pupils should receive adequate instruction in methods of accident prevention and that their attention should be directed to the importance of the question.

(c) The measures suggested in paragraph (c) would complete with advantage the instruction given in technical schools. It is therefore thought that they should be recommended. At the same time such instruction, it is considered, should not be limited to former pupils of technical schools, but should be open to all workers, including foremen and engineers.

(d) The reply is in the affirmative.

GERMANY

(a) The education of the people in principles of caution, and instruction in ordinary schools, can only deal with quite general questions of concern to everyone, such as public traffic. Teachers are not in possession of the requisite expert knowledge of conditions in factories, nor can the children be presumed to be as a rule in possession of the necessary comprehension and imagination. Such knowledge cannot be easily obtained. On the other hand, the development of instruction in first-aid questions appears desirable.

(b) Instruction in the prevention of accidents in technical schools is desirable. In this case accident prevention should not only be made a subject of instruction, but also a subject of examination. Special attention should be given to accident prevention in technical schools and polytechnics in order that not only future works engineers but also constructional engineers, when designing machinery and apparatus on the drawing board, should endeavour to find the most effective means of attaining safety.

(c) and (d) The reply is in the affirmative.

GREAT BRITAIN

(a) It does not seem desirable to include specific instruction in accident prevention to children in elementary schools and continuation schools for general education, in view of the age of the children and for other reasons. It is, however, considered advantageous to inculcate the habit of taking care of oneself; and simple instruction in first aid and hygiene, appropriate to the age of the children, is frequently given in the public elementary schools in this country.
(b) It is agreed that steps should be taken to instruct the pupils of technical schools and polytechnics in the subject of accident prevention and its economic and moral importance; but it is not considered practicable to make instruction in methods of accident prevention an element of the formal instruction given in such schools. It appears sufficient to draw attention to the matter by occasional lectures, the exhibition of posters, visits to exhibitions of safety appliances and the equipment of school machinery so far as used for production with adequate protective appliances. The collaboration in such matters of the appropriate officers concerned with the supervision of industrial processes with the schools authorities is of the first importance.

(c) The first part of this question relates to matters which seem to be a part of "Safety First" work, and to be for the employers or works safety committees or other safety institutions to organise. It lies outside the functions of the State and therefore does not seem appropriate in a Recommendation.

As regards the last part, relating to the provision of safety museums, the British Government consider that such museums can be of great service in many ways (see introductory note to the Catalogue of the Home Office Industrial Museum), and a Resolution in favour of the establishment of such museums might usefully be adopted.

(d) This seems to be covered by Question 2 (c) and (d) and the answer thereto.

Hungary

(a) Instruction in accident prevention and its connected problems in elementary schools cannot but facilitate the understanding and co-operation desired. This would not only be useful but necessary.

(b) It is just as important to include the prevention of industrial accidents in the programmes of instruction of technical schools and polytechnics as to complete elementary instruction with the addition of this subject. Foremen, factory engineers and proprietors should, when leaving the technical school, be familiar with the safety requirements of practical life from the social, technical and economic standpoints. Many practical men are without clear ideas as to the necessity of preventing accidents, and think that the subject is one which may interfere with manufacturing activities. If future managers learn at school that the difference between the two interests is only
apparent and that accident prevention is of utility from the manufacturer's point of view, that the safety appliances when suitably constructed and utilised, far from diminishing output, actually increase it, that every machine should be provided with means of protection, that in ordering new machines safety should be considered as much as output — if all these matters are understood there will result a great saving in the energy at present expended in convincing practical men whose instruction has been insufficient, and in eliminating those accidents which are caused through the ignorance and incredulity of factory managers and proprietors.

(c) The best method of maintaining interest in accident prevention and spreading knowledge of technical progress in this matter seems to be the creation and maintenance of special museums. These museums should not merely display their collections before the eyes of the public, but should also take an active part in the prevention of industrial accidents. Among other things they should bring to the notice of employers the latest results of technical progress, and to that of the workers the use of safety appliances. Lectures with practical exhibits would be required for this purpose, and, generally speaking, every means of propaganda should be used. A safety museum might well be used as a means of linking the authorities and the interested parties, as well as between the two groups into which the latter fall.

(d) Among the methods of accident prevention, vocational guidance and selection should be mentioned. The development of these matters is another way of furthering the work to be done by all concerned in overcoming industrial accidents by all the means of which society disposes.

India

Note: See note at head of reply to Question 1.

For the reasons given in the reply to Question 3 above, the adoption of most of the measures suggested would not be practicable in India where education in accident prevention must, for the present, be less elaborate.

Irish Free State

The Government is of opinion that the measures suggested in this paragraph might usefully be incorporated in an International Labour Recommendation.
JAPAN

(a) The reply is in the affirmative.
(b) The reply is in the affirmative.
(c) The reply is in the affirmative.
(d) The reply is in the affirmative.

LATVIA

With a view to completing the subject referred to in Question 3, it would be desirable to request the States Members to take the following measures:

(a) To encourage instruction in the problems of the prevention of accidents in elementary schools and continuation schools, either as an independent subject, or in connection with some other suitable branch.

(b) With a view to seeing that pupils in technical schools and polytechnics receive adequate instruction in methods of accident prevention, the foremen and engineers who work in these institutions should be given special instructions on the technical side of accident prevention.

(c) The reply is in the affirmative.

(d) See reply to Question 2 (c) and (d).

LUXEMBURG

The experience gained hitherto has shown that in a great number of cases accidents are to be attributed to lack of skill or of sufficient education on the part of the workers.

A predominant part is therefore played in the safety movement by the problem of occupational guidance and the problem of the education of the workers. In these circumstances the following measures are considered essential.

(a) Institutions for occupational guidance and for the placing of apprentices in employment should take greater account of the requirements of accident prevention.

(b) Special safety courses should be included in the instruction given in elementary and continuation schools, and more especially in technical and trade schools, so that the workers and future managers may be familiarised with industrial dangers and methods of avoiding them.
Courses of instruction of this kind have been in operation for a long time in the trade schools of the Grand Duchy of Luxemburg.

(c) In factories and large industrial establishments the attention of the workers should be drawn to dangerous features of their work by posters, lectures and the cinematograph.

(d) The creation and development of safety museums should be encouraged by every possible means.

**Netherlands**

(a) and (b) Instruction of the kind indicated might be of great utility in many educational establishments though not in elementary schools. At the same time it would be going too far to lay down in a Recommendation any obligation regarding such instruction.

(b), (c) and (d) The reply is in the affirmative.

**Norway**

(a) Yes. It seems practical to combine instruction of this kind with the instruction of hygiene.

(b) The reply is in the affirmative.

(c) The reply is in the affirmative.

(d) The reply is in the affirmative.

**Poland**

General approval ought to be given to the problems raised under (a), (b) and (c) of this question, particularly to the question of spreading knowledge of the principles of safety at work by instruction in the problems of the prevention of accidents in elementary schools and continuation schools, in technical institutions and through special courses of instruction, cinematograph films and museums.

Only thus can an active interest in safety problems be awakened in large sections of society, and the great public brought into touch with modern technical advances which, so far as they concern safety, should be communicated to all.

It is also desirable that industrial accident statistics should be communicated and distributed, such figures being one of the best means of safety propaganda.
As regards point (d) of this question, particular attention should be given to the question of vocational guidance, as the choice of workers of suitable skill for particular work is of the first importance as regards safety.

A worker in possession of the physical and mental qualities required by a particular trade is by this very fact effectively protected against accident. The choice of workers would therefore contribute in no small measure to increased safety in the workshop.

PORTUGAL

The reply is in the affirmative. With regard to paragraph (c), however, it is to be feared that attendance at courses of lectures, visits, etc., by those who have already left school may be insufficient. Special attention should therefore be given to this point, with the object of ensuring that it is sufficiently observed.

RUMANIA

The reply is in the affirmative.

KINGDOM OF THE SERBS, CROATS AND SLOVENES

With a view to obtaining co-operation in the matter of accident prevention, it should be recommended that the State should:

(a) See that pupils in elementary schools receive instruction in hygiene and first aid in case of accident, so that the children learn at an early age to appreciate the necessity of precautions at work, and so that the sentiment of caution may be inculcated at the earliest possible stage. Such instruction might be continued in secondary schools as well as in technical and apprenticeship schools, where the pupils may receive instruction combined with examples from practice;

(b) See that the attention of pupils in technical schools and polytechnics is drawn to the importance of accident prevention, which should be a compulsory subject of instruction;

(c) See that young workers receive instruction in technical and apprenticeship schools, and after they have left school, and by any other appropriate means, in characteristic examples of safety methods, particularly where the responsibility rests on the worker himself;
(d) Encourage all scientific and practical research, the object of which is to find means of preventing industrial accidents and diminishing their number.

Spain

(a) It is desirable that the education of the population should begin in elementary schools, and should be further developed in continuation schools, the latter being more directly concerned with industrial workers.

(b) It is preferable that instruction and education in safety should be carried on in technical schools and polytechnics, without, however, overlooking the drawbacks arising from the overloading of programmes in many of these centres of education.

(c) This work should be carried on constantly and continuously. Through it, interest in safety may be constantly maintained by the methods indicated in the Questionnaire — particularly museums and cinematograph films, as well as the distribution of short and easily-read illustrated leaflets and posters.

(d) Scientific research is the essential basis of the whole safety campaign, and methods of vocational guidance and selection are absolutely indispensable if it is hoped to avoid, so far as is practically possible, that workers who fail to come up to the conditions required for carrying on particular occupations should nevertheless undertake them.

Sweden

(a) It may be asked whether the questions under consideration are suitable for instruction at such an early stage as that corresponding to the elementary school. In support of the proposed measure, it may be urged that the mechanisation of life witnessed in recent generations, and still developing, calls for vigilance, caution and forethought even from children if accidents are to be avoided. It might therefore be desirable that the children's attention should be drawn during the school age to the more usual dangers by impressing upon them the necessity of developing the above-mentioned qualities, and by endeavouring, if possible, to inculcate certain elementary and practical principles, through the observation of which they may be more secure from accident. Even if instruction of this kind cannot be specially directed to industrial dangers, it will nevertheless form a valuable means of defence against danger.
(b) The reply is in the affirmative. If, however, the expression "technical schools and polytechnics" means exclusively schools which prepare pupils for industrial or similar occupations, it should be observed that it might be desirable to extend safety instruction to other educational establishments, such as schools of agriculture, navigation and forestry.

(c) The reply to this question is in the affirmative. At the same time, the object might perhaps be attained more effectively still by applying and developing on well thought out lines the principles of the Safety First Movement in the various branches of industry.

(d) Improved methods of vocational guidance and selection will obviously lead to increased safety, but in view of the comparatively restricted use which can be made of psycho-technical tests, and their secondary importance in the cases under consideration, it does not appear that their practical value is very great.

Switzerland

(a) In the view of the Swiss Government it does not appear possible to go so far as to educate the people in general in "the problems of the prevention of accidents". All that can be done is to inculcate in children ideas of caution, and to draw their attention to the frequency of accidents, the consequences of accidents and the case with which most of them may be avoided.

As the Questionnaire as a whole deals with industrial accidents, the Government desires to point out that, in speaking of inculcating caution, it is not intended to refer merely to caution required to be observed at work, but also to the prudence which should govern all the acts of daily life. Instruction dealing solely with the prevention of industrial accidents has its utility when it is addressed to the workers, but in the opinion of the Government it would be idle to give such instruction to children, since it would not apply to things with which they are familiar. On the other hand, a child on whom ideas of forethought and caution in all the acts of daily life have been impressed will be prepared to exercise prudence naturally in his work.

A number of objections have been raised to the inculcation of ideas of caution. It is claimed that, by speaking too much of danger and the precautions to be taken for its avoidance, a race of cowards will eventually be created. Resentment is particularly felt against instruction having for its object the prevention of industrial accidents on the ground that it will give rise to an impression among children that work is dangerous.
The Government cannot share these ideas. Caution and courage are two qualities which, far from being mutually exclusive, are useful compliments of one another. Caution does not consist in abstaining from any act which might expose to danger, but in the observance of precautions which reduce the danger to a minimum. Caution should become a habit leading to almost involuntary acts of protection, and this result can only be obtained if caution is learnt in childhood.

It is therefore thought that the Recommendation should primarily stress the importance of instruction in caution to pupils in elementary schools and continuation schools.

In this connection, however, a question of principle arises, viz. do not the provisions of a Recommendation which would eventually affect the educational plans of public schools exceed the attributions of the International Labour Organisation, and do they not fall outside its competence? It is not intended to consider this question in detail, but merely to draw attention to its existence.

With regard to the extension of instruction to include first-aid hygiene, it is understood that reference is here made to instruction in the principles of first aid. In the opinion of the Government this problem should only be approached with the greatest caution. It may indeed be agreed that certain quite elementary principles should be taught, but care must be taken to avoid going too far in this direction. Danger always lies in allowing those who are incapable of assimilating instruction to remain under the delusion that they nevertheless possess the necessary knowledge. First aid when administered with the best intentions but by clumsy and careless hands may lead to grave complications. In such cases abstention is preferable to intervention.

It is therefore thought that the Recommendation should only deal with instruction in the principles of first aid.

(b) It is thought desirable that the attention of pupils in technical schools should be drawn to the importance of accident prevention. The Recommendation might therefore contain a provision on this subject.

In the opinion of the Government such instruction should not be confined to pupils who on leaving the technical school or the school of apprenticeship will carry on their theoretical instruction in a more advanced institution, but should also be given to those who will enter practical life as works managers, fitters, etc., and who will be in the best position to realise the necessity of accident prevention and the efficacy of the measures taken.

(c) The Government agrees with the different methods
enumerated in this question as being suitable for maintaining interest in accident prevention.

(d) Expression has already been given (Question 2 (d)) to the view of the Government on the importance of the human factor in accidents. Vocational guidance and selection may help in restraining from certain work those persons who would be particularly exposed to accidents, and the influence of the human factor as a cause of accidents may thereby be reduced. Scientific research and practical application in this sphere are consequently of use in the prevention of accidents, and may be furthered by a provision in the Recommendation.

**Uruguay**

In the opinion of this Department, it is of great importance that the prevention of accidents should be included in the curricula of elementary and trade schools. The inclusion of this subject in programmes of primary education agrees with the modern orientation given to elementary instruction in Uruguay. The object of education should be preparation for life. The development of the safety sense in children, which is necessary from every point of view to the future adult and producer, falls undoubtedly within this wide field. There is no doubt, however, that it is through industrial education, which has made considerable progress in Uruguay, that the study of the matter in question can have the most effective results. In the domain of theory-practice it is with the aid of workshop machines and tools themselves that the workman can best be instructed in the dangers inherent in his work.
PART A. I. QUESTION 7

First Aid

Do you consider that the Recommendation should refer to the great importance of organising immediate first aid or medical treatment in industrial plants and workplaces?

Austria

Although first aid is not part of the subject of accident prevention, it is nevertheless not undesirable that it should be referred to in the Recommendation in passing.

Belgium

The reply can only be in the affirmative.

Canada

Alberta.

It is considered that the Recommendation should insist on the importance of providing first aid and medical treatment in industrial plants and workplaces.

Manitoba.

Medical treatment if at all possible; if not possible, then first aid.

Quebec.

The reply is in the affirmative.
Saskatchewan.

Yes, if made compulsory.

CZECHOSLOVAKIA

The organisation of immediate first aid and medical treatment should be considered as of the first importance, and particularly the rapidity with which first aid is given. It is essential that there should be factory medical stores, sufficiently equipped to cope with possible accidents, and that there should be practised gangs ready to give first aid and to see to the rapid transport of victims of accidents, and that medical treatment should possibly be given in the establishment itself if its size and local situation permit. In this connection it is desired to emphasise the advantage of having gangs trained with this object in the different industries. In Czechoslovakia these specially trained gangs exist in the mines and some of the more important industrial establishments (the Skoda Works, the Prague Metallurgical Society, the Vitkovice Works). To some extent voluntary aid corps in factories may contribute to the same object, e.g. Samaritan workers.

DENMARK

The reply is in the affirmative. Mention should certainly be made of the great importance of being able, in the case of accident, to give satisfactory aid to the injured parties. Each establishment should be ready in advance to give such first aid. The way in which a provision of this kind would be executed would depend on the circumstances of each establishment, e.g. size, situation, general organisation of public ambulance and accident services. It would scarcely be possible in a recommendation to lay down more definite rules on this subject.

ESTONIA

The reply is in the affirmative.

FINLAND

Finnish legislation requires that the necessary first aid material and a suitable room should be kept in readiness in.
industrial workplaces. If there is no doctor in the factory, there must be some person capable of giving first aid. As regards dealing with the consequences of accidents, mention may be made in the Recommendation of the great importance of first aid and medical treatment.

**FRANCE**

The reply is in the affirmative.

**GERMANY**

The reply is in the affirmative. In Germany, under the safety regulations, the employer may be required to provide first aid in case of accident, while the injured person would be responsible for his conduct at the time. Further, the employers and the sickness funds are required to support the accident insurance institutions in the work of insurance. Armed with these powers, the accident insurance institutions see to it, through general instructions to sickness funds and to employers, that the necessary steps for the administration of first aid are taken, and that the injured person receives, if necessary with the employers' assistance, such medical treatment as is called for by the nature of the accident as soon as possible after the latter.

**GREAT BRITAIN**

A Recommendation in favour of the provision of first aid, supplemented where necessary by ambulance arrangements, would be desirable.

**HUNGARY**

It is desirable that the Recommendation should mention the best methods of lessening the consequences of accidents or of diminishing their gravity. Accident prevention also includes the avoidance of the consequences which accidents may have, and methods of avoiding accidents must consequently be considered together with ways of reducing their effects.

The co-operation required between all the interested parties must include that of the doctor and his science, as first aid and suitable medical treatment must immediately be given to victims of accidents.
These matters cannot therefore be overlooked in the Recommendation, since, although they deal with things subsequent to the accident, they nevertheless form part of the subject as a whole.

**India**

*Note: See note at head of reply to Question 1.*

The reply is in the Affirmative.

**Irish Free State**

It would be advisable that the Recommendation should refer to the necessity for organising first aid or similar medical treatment in industrial undertakings.

**Japan**

The reply is in the affirmative.

**Latvia**

The reply is in the affirmative.

**Luxembourg**

Mention might be made in the Recommendation of the great importance of organising immediate first aid or medical treatment in industrial plants and workplaces.

**Netherlands**

The reply is in the affirmative.

**Norway**

The reply is in the affirmative. But it is important that the provisions do not come into conflict with the principle of free choice of a doctor.
POLAND

The organisation of immediate first aid is necessary. With this object the larger establishments should organise a system of rapid assistance with a qualified staff, while the smaller establishments should have first-aid stations in common.

As regards the general question of medical treatment in the factory, this question is dealt with differently by the various national laws, and serious difficulties would, in the existing state of things, stand in the way of international regulations on the subject.

PORTUGAL

This measure is highly interesting and useful if it is well carried out, and requires particular attention in order that it may be realised in practice. First aid, when administered by other than competent persons, may do more harm than good. The larger undertakings at least, however, should be in possession of medical stores for immediate bandaging, and the higher staff should be trained in their use, e.g. for arresting haemorrhage, transport of sick persons, etc.

RUMANIA

The reply is in the affirmative.

KINGDOM OF THE SERBS, CROATS AND SLOVENES

The Recommendation should draw the attention of the States to the necessity of organising first aid in all dangerous undertakings. In the larger establishments, particularly those at a distance from a town, it should be made compulsory to have in their service a doctor, or at least persons skilled in first aid, with an ambulance.

Under section 32 of the Workers’ Protection Act, any undertaking employing not less than 100 workers, and situated not less than three kilometres from the boundary of a town, is obliged to maintain at its own expense an ambulance so that first aid may be given to workers who are ill and whose condition requires it.
Although this question does not, strictly speaking, relate to the prevention of accidents, but rather to the diminution of their effects — i.e. through first aid and medical treatment in the industrial establishments themselves in which accidents occur — it may effectively contribute to the lessening of the material consequences of accidents. There is consequently no logical obstacle to a reference in the Recommendation to the great importance of organising immediate treatment, which, in diminishing the effects of accidents which occur, may be considered as preventive with regard to the possible aggravations of their consequences.

The reply is in the affirmative. In view of the fact that in numerous cases it might be necessary or desirable that the injured person should be at once conveyed to hospital or to some other place where he may receive competent treatment, it might perhaps be desirable also to mention in the Recommendation the desirability of developing ambulance services.

Organisation of medical treatment in factories and workplaces is certainly to be recommended. On the other hand the organisation of first aid cannot be recommended in general. On this point it is necessary to make reservations similar to those made in connection with instruction in first-aid principles (Question 6 (a)). The organisation of first aid can only be encouraged where there is a guarantee that first aid will be given by qualified persons or in conditions which ensure that all danger of infection or incorrect treatment is absent. In the larger establishments these conditions should not be too difficult to secure, but the case is otherwise in smaller undertakings.

It is therefore thought that the Recommendation might refer to the great importance of the organisation of medical treatment. With regard to the organisation of first aid it should only be mentioned subject to the reservation that first aid should be given in conditions which preclude all danger of aggravating the injury.
Uruguay

In the opinion of the Department of Labour it should be recommended that the Governments of the States Members should organise first-aid services, and also that industrial establishments of any size should have at their disposal a permanent medical practitioner. The former requirement forms part of the regulations in force in Uruguay. As regards the latter, i.e. a permanent medical service, the proposed Labour Code, drafted by the Department of Labour, which is at present before the House of Representatives, lays down that every establishment in which more than 200 persons are employed should have in its service a doctor or medical practitioner similar to the Industrial Medical Service, among whose duties is that of examining the victims of accidents.
PART A. II. QUESTION 1

Principle of regulations for a minimum standard of safety

Do you consider that the Recommendation should embody the principle that the law should prescribe regulations for ensuring a minimum standard of safety?

Austria

It is only by means of legal regulations that safety measures can be enforced by the authorities in case of necessity, thereby enabling a minimum standard of safety to be attained.

Belgium

The reply is in the affirmative.

Canada

Alberta.

It is considered that the Recommendation should adopt the principle that a minimum standard of safety should be established by statute.

Manitoba.

The reply is in the affirmative.

Quebec.

The reply is in the negative.
Saskatchewan.

The reply is in the affirmative.

Czechoslovakia

Regulations prescribing a minimum standard of safety in industry have been issued in Czechoslovakia under Article 74 of the Industrial Code, corresponding to Article 102 of the Industrial Act for Slovakia and Sub-Carpathian Russia, and it is therefore suggested that the Recommendation should mention the principle that legislative measures for ensuring a minimum standard of safety should be taken.

Denmark

The reply is in the affirmative. It should be recommended that legislative steps for the prevention of accidents should be taken, and legislation should contain provisions authorising the administrative authorities to supplement the provisions to a certain extent by such regulations as may be required by the circumstances of the moment.

Estonia

The reply is in the affirmative, but the Recommendation should not enter into too great detail.

Finland

An affirmative reply can be given to this question on the assumption that the law should only contain general provisions, on the basis of which more detailed instructions for ensuring a minimum standard of safety can be given. These special instructions cannot, however, lay down in detail what has to be done for the protection of the workers in the various industries and in every case. With regard to this latter point, the measures to be taken must be left in each case to the decision of the official who is required to supervise the application of the law.
FRANCE

It is thought essential that the law should prescribe regulations for ensuring a minimum standard of safety. It is therefore desirable that the Recommendation should recommend legislative measures with this object. French legislation (Labour Code, Book II, Part II, and Regulations made thereunder) requires employers to take such safety measures.

GERMANY

It is essential that the law should prescribe regulations for ensuring a minimum standard of safety, but there can be no question of laying down detailed provisions which could only be incomplete; a general minimum standard, such as that contained in section 120 of the Industrial Code (Gewerbeordnung) is what should be laid down. In countries in which the work of accident prevention is also carried on by State-recognised institutions, such as trade corporations, the law should also prescribe regulations for such institutions for ensuring a minimum standard of safety. Under the German accident insurance system, this requirement corresponds to the contents of section 848 of the Insurance Code (Reichsversicherungsordnung).

GREAT BRITAIN

It is essential that the law should lay down regulations for ensuring a minimum standard of safety. This is done by the British law and presumably by the law of all important industrial countries. Whether it is desirable to embody a general principle of this sort in a Recommendation is another question. Some doubt may be entertained as to whether it will produce any useful results.

HUNGARY

It is absolutely necessary that the law should prescribe regulations for ensuring a minimum standard of safety, particularly in the interest of small undertakings and skilled tradesmen working on their own account, where conditions are not very favourable to the development of safety for economic reasons.
INDIA

Note: See note at head of reply to Question 1 of Part A. I.

The reply is in the affirmative.

IRISH FREE STATE

The Recommendation should embody the principle that the law should prescribe regulations for ensuring the minimum standard of safety. In making this Recommendation the Government has in mind legislation of the type contained in sections 10 and 17 of the Factory and Workshop Act, 1901.

JAPAN

We consider that the Recommendation should embody the principle that the law should prescribe regulations for ensuring a minimum standard of safety. But concerning the application of the above principle in the form of national laws determining the particulars referring to the duties of employers, workers, etc., we are of opinion that full discretion should be given to each State, so that in making regulations it may take into consideration its special circumstances.

LATVIA

The Recommendation should embody the principle that the law should lay down general provisions on the basis of which more definite instructions would be given for ensuring a minimum standard of safety in the different industries.

LUXEMBURG

It is desirable that the Recommendation should embody the principle that the law should prescribe regulations for ensuring a minimum standard of safety.

Such measures for the protection of the workers were introduced into the Grand Duchy of Luxemburg by the Act of 28 August 1924 and the Regulations of the same date made thereunder concerning the health and safety of persons employed in
workshops, industrial and commercial establishments and also in the construction, equipment and repair of factories, as well as in the work of excavation.

**NETHERLANDS**

The reply is in the affirmative.

**NORWAY**

The reply is in the affirmative.

**POLAND**

It is desirable that this point should be included in the Recommendation, since only in this way is it possible to ensure a minimum standard of safety by legislative means.

**PORTUGAL**

The reply is in the affirmative.

**RUMANIA**

The reply is in the affirmative.

**KINGDOM OF THE SERBS, CROATS AND SLOVENES**

It is essential that a minimum standard of safety should be legally prescribed, i.e. by special regulations for each industry. It is desirable that an attempt should be made to harmonise such safety regulations internationally for the members of the International Labour Organisation.

In this country, regulations dated 25 October 1921, and containing all necessary measures for the health and technical protection of the workers, were issued under the Factory Inspection Regulations of 21 May 1921 (subsequently the Factory Inspection Act).

As regards mines, all the measures indicated under Questions 1 and 2 (a), (b) and (c) (i) and (ii), have been strictly applied in
mining legislation in this country for the last sixty or seventy years. With regard to the competence of the supervisory body mentioned under (c), mining legislation in this country gives wide powers to this body, which is not only competent to decide upon safety measures, but may also order them to be carried out in the factory and at the employer's expense when the latter refuses to do so. This method has proved highly effective during the long period referred to above, and in consequence the mining industry in this country is not considered a dangerous occupation.

Spain

The Recommendation should embody general principles which may be transformed into legislative measures, although, from the strictly technical point of view, such measures, rather than being exclusively legislative, should take the form of safety regulations for the workers.

Technical progress in safety requires that the executive power should be able at any moment to order the safety measures required to prevent accidents or to diminish the risk of accident.

Sweden

It appears that, generally speaking, industrial safety legislation and its application may assume one of two different forms. According to the first of these, legislation is confined to the establishment of general provisions, the application of which in different cases is left to the employers and the inspecting bodies. The second system embodies detailed regulations which are to be strictly applied. In the former case, the inspectorate resolves itself for the greater part into a service of consultation on technical matters, while in the latter it forms rather a system of police supervision. It is indisputable that the former system, which has long been applied in Sweden, furthers the adaptation of safety measures to technical progress, and saves manufacturers in general from a number of measures for which little justification may exist. It is obvious, also, that this system is more suitable than the second for maintaining the interest of employers in safety measures and thus bringing nearer the realisation of that co-operation between employers, workers and others which is so desirable and so essential for the development of the safety movement.

The object of the legislation referred to in the question, i.e. for ensuring a minimum standard of safety, seems to be the second system. Apart from the fact that it scarcely appears
possible effectively to ensure such a minimum standard among other reasons on account of the continual progress of technical knowledge, it should be observed that in many cases the minimum standard would be likely to become, if not a maximum standard, at least a normal standard, and may consequently hinder the development of safety measures.

In view of the foregoing considerations it does not appear possible to give an affirmative reply to this question.

**SWITZERLAND**

An affirmative reply can be given to this question. Legal measures embodying regulations for ensuring the minimum standard of safety are necessary. The matter cannot be entirely left to the goodwill of those concerned, and legal compulsion is therefore necessary. The law should, however, take account of the different interests concerned. In Article 65 of the Federal Sickness and Accident Insurance Act the following formula is adopted: "In every undertaking . . . the employer or his representative shall, in order to avoid sickness and accident, take all measures which have been shown by experience to be necessary and which the progress of science and the circumstances enable to be applied." The whole of the work of the Swiss National Accident Insurance Fund in connection with the prevention of accidents rests on this provision, and the results obtained have been highly satisfactory. The general tenor of this provision not only enables accident prevention to be developed as required, but also enables the exigencies of industry to be taken into account to the extent desirable.

**URUGUAY**

It has already been observed that it is the duty of Governments to lay down a minimum standard of industrial safety. The right to work in safety is a corollary of the right to live which is recognised by political constitutions. There can be no rights without duties. To the right to live corresponds the duty of the State to safeguard life. One way in which this obligation may be complied with is, as regards accidents, by enacting laws requiring that work should be carried on in security.
PART A. II. QUESTION 2

Duties of employers, powers of competent authorities and rôle of accident insurance institutions

In this connection, should provision be made on the following lines as regards employers:

(a) That the employer is bound to equip and manage his undertaking in such a way that the workers are sufficiently protected, regard being had to the nature of the undertaking and the state of technical progress;

(b) That plans for the construction or alteration of industrial undertakings are to be submitted, before the work is taken in hand, for examination by the factory inspectorate or other competent authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the safety regulations;

(c) (i) That whatever bodies are responsible for supervising the enforcement of the laws and regulations concerning the protection of the workers against accidents are to be empowered to give orders in the individual case to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal to an authority specially organised for this purpose;

(ii) If so, should the responsible body be empowered in cases of imminent danger to require immediate compliance with the orders, notwithstanding the right of appeal?

(iii) If the answer to (i) is in the negative, what system do you recommend for ensuring that the laws and regulations are enforced?

(d) (i) That, in countries where there is a system of insurance against industrial accidents administered by or
under the direction of the State, the industrial accident insurance institutions should be

(1) empowered, or
(2) required,
to take into account, for the fixing of premiums, the measures taken in the various undertakings for the protection of the workers?

(ii) What further importance do you ascribe to accident insurance of workmen's compensation in the matter of accident prevention, and in what way, in your opinion, could accident insurance institutions or accident insurance companies contribute effectively to furthering the work of accident prevention?

**Austria**

(a) The reply is in the affirmative. At the same time, in view of the rapidity with which technical knowledge frequently advances, the occupiers of existing factories which have been approved by the authorities can only be expected — except where it is necessary to remedy abuses obviously endangering the life or the health of the workers — to take safety measures corresponding to the actual technical position when such measures do not involve disproportionate outlay or serious disturbance in the work of the factory.

(b) Safety measures can be much more effectively and cheaply taken when a factory is being built, or additions or alterations carried out, than at a later date.

(c) In Austria, the factory inspectorate is not called upon to prescribe safety measures to be taken by the employers in individual cases. As a rule the factory inspectorate has to request the competent industrial authority (the general administrative authority of first instance) to order the execution of such safety measures as have been found necessary. The factory inspectorate is only authorised to prescribe safety measures when an immediate remedy is required. These orders of the factory inspectorate, which are only to be issued in case of urgent necessity, have the same effect as orders of the competent industrial authority. The occupier of the factory has a right of appeal to the industrial authority from the orders of the factory inspectorate. The exercise of this right does not, however, delay the effect of the order.
(d) Industrial accident insurance institutions should be empowered, when fixing premiums, to take into account the fact that a factory is well equipped from the safety point of view, since such differentiation in premiums undoubtedly gives a special stimulus to the adoption of appropriate safety measures.

On account of their varied practical experience accident insurance institutions constitute a factor of great importance in connection with accident prevention. For this reason cooperation between accident insurance institutions and the other parties interested in this problem is greatly to be desired, since it is in the material interest of the former that well-planned safety measures should be taken. In Austria, this co-operation finds its place in the Central Accident Prevention Office mentioned above, on which accident insurance institutions are represented.

**Belgium**

(a) The reply is obviously in the affirmative.

(b) The reply is in the affirmative. Such a system has existed in Belgium for a great many years.

(c) (i) The reply is in the affirmative.

(ii) The reply is in the affirmative. The Belgian regulations on the subject have contained a provision to this effect since 1923 and no difficulty has been encountered in its application. A threat that the regulation might be applied has always been sufficient to obtain the required result.

(d) (i) Any system involving a reduction in premiums according as accidents diminish is to be recommended.

**Canada**

*Alberta.*

It is considered that in establishing a minimum standard of safety, provision should be made:

(a) Requiring the employer to equip and manage his undertaking in such a way that the workers are sufficiently protected, having regard to the nature of the undertaking and the state of technical progress.

(b) Requiring the submission to and approval by the factory inspectorate or other authority of all plans for the construction or alteration of industrial undertakings, and that the same comply with the safety regulations.
(c) Empowering the factory inspectorate or other body to require the installation of safeguards, and to prohibit the use of any part of the industrial undertakings which does not conform to the regulations until the amelioration has been effected. There should be no appeal beyond an appeal to the chief inspector; and when an appeal is taken, it should not affect any order prohibiting the use of the premises in the interval between the instituting and the determination of the appeal.

Provision should be made for the immediate disposition of appeals.

(d) It is considered:

(i) that State industrial accident insurance authorities should be required to take into account for the fixing of premiums, the measures taken in the various undertakings for the protection of workers, as well as the accident record of any undertaking.

(ii) that the work of accident prevention can be best furthered by educating workers and employers to realise the importance to themselves and their industry of avoiding preventable accidents, and to take advantage of all known means of accident prevention.

Manitoba.

(a), (b), and (c) (i) and (ii). The reply is in the affirmative.
(c) (iii). No reply.
(d) (i) (1) and (2). Empowered.
(ii) By contribution on a percentage basis of income to an accident fund controlled by State bodies.

Quebec.

The reply is in the negative.

Saskatchewan.

(a) The reply is in the affirmative.

(b) This would not be practicable without increasing the inspectorate staff unreasonably and for indefinite periods, but considerable effect could be obtained by informing architects, contractors and manufacturers of provisions contained in safety regulation requirements.
(c) (i) The reply is in the affirmative.
(ii) The reply is in the affirmative. If care is taken to see that the order is justified.

(d) (i) It is considered that Compensation Boards when fixing premiums should be required to take into account the measures taken by various undertakings for the safety of workers.
(ii) It is considered that merit rating is the most effective measure in furthering the work of accident prevention.

CZECHOSLOVAKIA

(a) The reply is in the affirmative. The measures in question are taken in Czechoslovakia by the provisions mentioned in the reply to the preceding question.

(b) The reply is in the affirmative. The measures referred to are applied in Czechoslovakia by a Decree of the Ministry of Commerce dated 19 May 1925 (No. 22277/1925) on the measures to be observed in approving industrial workshops, and also under Articles 25-85 of Chapter III of the Industrial Code, corresponding to Articles 40-50 of the Industrial Act for Slovakia and Sub-Carpathian Russia.

(c) (i) and (ii) The bodies responsible for factory inspection should in cases of imminent danger have the power provided for under paragraph 6 of the Recommendation concerning the organisation of factory inspection services adopted at the Fifth Session of the International Labour Conference at Geneva in 1923. Further, mining authorities in Czechoslovakia are authorised to order safety measures to be taken if events occur which endanger personal safety (Articles 220-224 of the Czechoslovak Mining Act of 23 May 1854 — No. 146 of the Imperial Code).

(d) (i) In countries where there is a system of insurance against industrial accidents, the various insurance institutions should be required, within fixed limits, to take into account for the fixing of premiums specially remarkable and effective safety measures taken in the different establishments, since this system is one of the most effective means of interesting employers in the application of safety measures.
(ii) Accident insurance institutions should take an active part in furthering accident prevention by awarding prizes for the best safety measures, by organising exhibitions of effective safety devices, etc.
DENMARK

(a) The Regulations should certainly require the employer to equip and manage his undertaking in such a way that the workers are protected as completely as the nature of the work and the state of technical progress permit. (See also reply to A. I. Question 4.)

(b) There would be little advantage in prescribing that plans for the construction or alteration of undertakings are to be submitted before the work is taken in hand for examination by the factory inspectorate or other competent authority in the matter in order that it may be ascertained whether the plans are such as to satisfy the safety regulations. Such a preliminary examination would without doubt be difficult to carry out from an administrative standpoint, and it might also be a disadvantage in another way. In any case the approval of the plans should only be given subject to the express reservation that the conditions—installation of machines, number of workers, nature of product, etc.—should not be changed.

On the other hand it would be reasonable that employers who so desire should be enabled to obtain in advance a declaration from the factory inspectorate as to whether the inspectorate has any observations to make on plans submitted to it for the construction or alteration of a factory. (See the Danish Factory Act of 29 April 1913, Article 5.)

(c) (i) The supervising authorities should be authorised to require the employers in every case and within the limits of the law to take the steps required to comply with the safety regulations.

A right of appeal should lie to the higher factory inspection authorities or to official authorities or institutions, and it would scarcely be necessary or desirable to organise a special authority for this purpose. The question of submitting the decision of the inspectorate to a higher authority should rather be left to national legislation.

(ii) The reply is in the affirmative.

(iii) No answer is required for this question.

(d) (i) It would be natural in fixing premiums to take account of the measures taken in the various undertakings for the protection of the workers and the measures taken to diminish or remove entirely the risk of accident. In the case of countries which have effective safety legislation of long standing such differentiation of premiums would scarcely constitute a serious inducement to take further steps for the prevention of accidents. Any difference in premiums would certainly be very small.
(ii) Accident insurance societies may contribute to furthering the work of accident prevention by giving complete information on causes of accidents which are brought to their notice to the workers' protective organisations (factory inspectorate, etc.). Further they might encourage the workers to give consideration to safety measures, e.g. by awarding prizes in kind or otherwise to workers who have undeniably prevented a serious accident.

**Estonia**

(a) The reply is in the affirmative.

(b) The reply is in the affirmative, but no attempt should be made to specify the authority to which plans for the construction of industrial undertakings are to be submitted. This depends on the particular circumstances of administrative organisation in each State.

(c) The reply is in the affirmative.

(d) (i) It is to be presumed that accident insurance institutions themselves are primarily interested in accident prevention, and consequently do all that they can to further safety in establishments. One way of encouraging employers to adopt safety measures is to fix premiums according to the degree of safety found in the establishment. Such institutions should be empowered to do this without being required to do so, the latter method being incompatible with their independence.

(ii) Accident insurance institutions might contribute to the work of accident prevention by laying down safety provisions with penalties for members who do not observe such provisions. They should appoint inspectors to see that the provisions laid down are carried out. The award of prizes to encourage inventions and improvements with increased safety as their object may also be recommended.

**Finland**

(a) The reply is in the affirmative. See reply to A.I. Question 4.

(b) According to experience in Finland in the matter of requiring the factory inspector, on the request of the employer, to give an opinion as to whether plans for the construction of buildings comply with the safety regulations, it may be said that if it is made compulsory to submit building plans in advance to the factory inspector practical difficulties will arise which,
at least so far as Finland is concerned, would make the system impossible. On the other hand, the employer might be called upon to inform the factory inspector concerned before work is begun, and thus to give the inspector an opportunity of examining the proposed work if he considers that in view of the circumstances it is necessary to do so.

(c) (i), (ii) and (iii) So far as Finland is concerned, an affirmative reply can be given to these three questions. Factory legislation in Finland already empowers the factory inspector in any individual case to give definite instructions to the employer, which may, however, be appealed from to higher authority. In case of imminent danger, the instructions must be complied with immediately, notwithstanding the right of appeal. This system has proved itself extremely effective in Finland.

(d) (i) The Recommendation should contain a provision to the effect that, in countries where there is a system of insurance against industrial accidents administered by or under the direction of the State, the insurance institutions should be required when fixing premiums to take into account the measures taken in the various undertakings for the protection of the workers.

(ii) In addition to the procedure just mentioned, insurance institutions could also carry out valuable propaganda in favour of safety in industrial establishments.

FRANCE

(a) The reply is in the affirmative.

(b) It is thought that it might be desirable that plans for the construction or important alteration of industrial undertakings should be submitted before the work is taken in hand for examination by the factory inspectorate in order that the latter may furnish employers, so far as the plans enable it to be done, with indications of utility from the standpoint of the safety regulations, thus avoiding the necessity for the employers to carry out expensive alterations at a later date.

(c) (i) It might seem desirable that the inspector should be empowered to give orders to the employer as to the steps to be taken to comply with the regulations. At the same time as this power is given to the inspector, however, the necessary technical competence must also be insisted upon. It would, however, be difficult to find inspectors whose competence was sufficiently wide and varied, since they are not as a rule specialists, since they visit industries of various kinds, and
since the application of the regulations may give rise to special technical problems in each industry.

For this reason the French law and Regulations either contain provision which either lay down the means to be employed for avoiding different kinds of accidents or merely indicate the object to be attained without defining the means and without authorising the inspector to define them.

(ii) It may be thought desirable that in case of imminent danger the responsible body should be empowered to require immediate compliance with the orders. In this connection, however, the question arises whether the inspector should be entitled to substitute himself for the employer and himself to order the measures to be taken. In French legislation it has not been thought desirable to go so far as this. In no case and to no extent is the inspector's responsibility substituted for that of the employer. The inspector is merely authorised, in certain cases, to issue a summons immediately and without warning for breach of the regulations.

(iii) See reply to (i) above.

(d) (i) Compulsory insurance does not exist under the French law, and it follows that safety measures insisted upon by insurance undertakings do not apply to uninsured establishments, which include particularly the large engineering and mining undertakings, where factory regulations should be particularly important. One of the insurance systems which are associated with the application of the accident compensation regulation is the Caisse nationale, controlled and administered by the State. The premium laid down may vary to a greater or lesser extent in a proportion of 30% according to the risk. Safety measures are considered by the Caisse as an essential factor in estimating the risk, and account is taken in fixing premiums both of the general installation of the factory or workshop (lighting, facility of movement, position of boilers and power transmission apparatus, etc.) and the measures taken to protect workers from particularly dangerous machines. The Caisse also considers whether the safety measures ordered by the factory inspectorate are carried out and if the party proposing to be insured is a member of an accident prevention association.

Moreover, whenever possible the Caisse nationale causes an enquiry into these different points to be carried out on the spot by one of its representatives, but in every case the employer has to furnish definite information on the prevention of accidents by replying on his own responsibility to a questionnaire.

(d) (ii) Insurance companies and institutions might contribute to the work in the following ways.
1. By reducing premiums as mentioned above.

2. By setting up accident prevention services to be at the disposal of the insured parties and, if necessary, requiring the latter to utilise them.

In this connection interesting measures have been taken in France, particularly in connection with accidents in the building and engineering trades, by insurance institutions (guarantee syndicates, mutual societies).

Furthermore, there is a service of this kind which has been organised by the Central Prevention Office of the insurance societies. This service is functioning effectively at the moment, and the insurance societies have decided to develop it still further in 1929. This development relates principally to the number of specialist engineers who have been trained or who are to be trained, but the results obtained in 1928 give ground for expecting a rapid extension. It would appear that this system should be of great assistance in furthering the progress of accident prevention.

With this object the French insurance companies offer to provide their clients with the assistance of specialist safety engineers free of charge and without any formality. These engineers visit the factories and give detailed information on the safety measures which may be employed with advantage in each particular case.

**Germany**

(a) The reply is in the affirmative.

(b) The reply is in the affirmative. The examination of plans for the construction of buildings in general in Germany is of particular importance in relation to safety, as on the one hand the employer avoids additional expense if the requirements of the safety authorities are observed in time, while it is easier for the latter to call for special requirements to be fulfilled than it would be after the building was completed.

(c) (i) The reply is in the affirmative. It is essential that the body responsible for supervising the enforcement of the laws and regulations should be empowered to give orders to the employer as to the steps to be taken by him. In this connection it is frequently desirable that a certain standard of safety only should be required, leaving to the employer the choice of the means by which this standard is to be reached. It is desirable that a right of appeal against such orders should be recognised.

(ii) The reply is in the affirmative.

(iii) No reply is returned to this question.
(d) (i) The system of varying insurance premiums according to the measures taken in establishments for the safety of the workers has advantages. It furnishes strong inducement to the individual employer to adopt non-dangerous apparatus, since he can thereby count upon a direct result in the shape of a reduction in premium. It is scarcely possible in the Recommendation to require the insurance institutions to take safety measures into account, since it depends upon the system of premiums whether such a requirement could really be enforced. In countries where — as in Germany — the calculation of insurance premiums is based upon the safety category to which the factory belongs, the position in the various undertakings as regards safety measures can be taken into account in the classification. The safety standard has thus a direct effect on the amount of the premium.

(ii) The prevention of accidents is in Germany the principal function of social insurance institutions. This relation between accident prevention and accident insurance results in an important stimulus being given to accident prevention. It has supplemented the activities of the official factory inspectorate.

The trade corporations, in their capacity as accident insurance institutions, are empowered and required to issue safety regulations for the establishments which are insured by them. This "autonomous" system is the simplest way of finding a balance between safety requirements and economic requirements, and it is essential that it should be subject to strict State supervision. The industrial classification of the corporations renders it possible to adapt the safety regulations to the special requirements of individual industries and trades to a marked degree. The regular application of the safety regulations is supervised by special technical officials of the trade corporations, i.e., by representatives of the "autonomous" administration. Their activities are also watched by the State factory inspectorate. In addition to the above-mentioned activities the trade corporations have been of service in connection with scientific research into the cause of accidents. They have also contributed with success to the education of the workers in safety methods through courses of instruction, lectures, safety posters and other means.

GREAT BRITAIN

(a) No advantage is seen in laying down a general principle of this sort. It is much too vague to be embodied in national legislation. It is the concrete application of the principle that matters. Definite and detailed provisions as to the employer's obligations and duties should be laid down by the law.
(b) No. The British policy and practice were explained at the Conference of 1928.

(c) (i) and (ii) No. The suggested procedure would be contrary to the British administrative and judicial system. The matter was discussed by the 1923 Conference and a settlement reached (see Article 6 of the 1923 Recommendation). The British Government would object strongly to the question being re-opened.

(iii) In Great Britain, if any dispute arises between the inspector and the employer as to the manner in which the law should be applied, it is determined by the courts of law. In cases of imminent danger, the court has the power on the application of the inspector and before the case is heard, to make an interim order to take effect immediately.

(d) (i) Does not apply to Great Britain.

(ii) In addition to the adoption of some system of merit-rating under which an employer showing a high standard of freedom from accident can obtain a reduction of the ordinary premium, insurance companies and associations are in a position to contribute effectively to the furtherance of accident prevention by (i) analysis and tabulation of particulars relating to accident cases, e.g. duration of disability, (ii) propaganda among insured employers, inspection of their premises, and advice as to safety measures.

Hungary

(a) It is thought essential to state that the general obligation referred to should be laid upon the employer, as this is the starting point of all safety legislation.

(b) The construction, alteration and extension of buildings are everywhere made subject to the authorisation of the competent services for the supervision of building construction.

As the duty of submitting plans for construction or alteration for the opinion of a second authority would undoubtedly involve delays, the Recommendation should suggest that the examination of these plans should take place with the assistance of experts on the question of safety.

(c) (i) As regards the question whether the bodies responsible for supervising the enforcement of the laws and regulations concerning the protection of the workers should have particular powers, e.g. whether they should be competent to give orders to the employer as to measures to be taken, changes to be made, etc., to avoid the possibility of accident, the best plan would
be to avoid mentioning the matter in the Recommendation, since the question goes to the root of systems of administration, which differ from one country to another, and in which changes in a large number of countries cannot be called for. The essential point is to ensure that the steps recognised as necessary should be rapidly taken. The Recommendation might emphasise the importance of the matter, while leaving the means of reaching the end in view to the judgment of individual countries.

(ii) In cases of imminent danger the supervisory bodies might be empowered to prescribe measures to be taken immediately.

(iii) See reply to (c) (i).

(d) (i) Insurance institutions should be empowered, but not required, to take into account for the fixing of premiums the measures taken in the various undertakings for the protection of the workers.

(ii) Economic and practical experience leads to the conclusion that accident insurance institutions and companies can effectively, economically and rationally deal with accident prevention. It would therefore be desirable to mention the fact in the Recommendation, and consequently to suggest that compulsory accident insurance institutions and accident insurance companies might deal with accident prevention.

The scope of these activities and their methods might naturally vary from one country to another according to the organisation which the State has adopted in the matter. It is desirable that all accident insurance institutions should have full liberty as regards safety measures to be taken, ranging from the right to issue and supervise the application of safety regulations to the publication and distribution of safety propaganda pamphlets.

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**INDIA**

*Note: See note at head of reply to Question 1 of Part A. I.*

(a) The reply is in the affirmative.

(b) In some cases, it is desirable that the plans for the construction or alteration of industrial undertakings should be submitted to the competent authority for examination before the work is taken in hand, but the Government of India consider that it would not be desirable to lay down any hard and fast rule in the matter, as the compulsory reference of such plans to the competent authority in all cases may lead to
excessive delays and hamper the industrial development of the country. In India a breach of the safety regulations can be adequately dealt with by the inspectorate.

(c) (i) and (ii) The reply is in the affirmative.

(iii) Does not arise.

(d) This part of the question is not applicable to India where there is no system of insurance against industrial accidents administered by, or under the direction of, the State.

**Irish Free State**

(a) The employer should be bound to equip his undertaking in such a way that the workers are protected in so far as is practicable, having regard to the nature of the undertaking and the state of technical progress.

(b) It would be desirable that plans for the construction or alteration of industrial undertakings, of a class to which safety regulations have been applied, should be submitted for examination by the factory inspectorate so that it might be ascertained whether the proposed plans indicated any contravention of those regulations. In Saorstat Eireann no statutory obligation is placed on the inspectorate in this matter but the plans which must necessarily be submitted to the local authorities are in many cases transmitted by the local authorities to the factory inspectorate for their views.

(c) (i) The inspectors appointed under the Factory and Workshop Acts are responsible in Saorstat Eireann for the supervision of the enforcement of the laws and regulations concerning the protection of workers against accidents. The inspectors point out what is the particular statutory requirements in each individual case and if the occupier refuses to comply, proceedings in a Court of Summary Jurisdiction may be taken against him, the inspector concerned acting as a witness in the case to prove that certain offences existed on the date on which the inspector concerned visited the premises and carried out his inspection.

(ii) In Saorstat Eireann no inspector has authority to close down a machine or an undertaking. Such action can only be taken by an Order of a Court of Summary Jurisdiction. Appeal to such a court can be made without delay and a Closing Order obtained with immediate effect. The effect of the action that may be taken in Saorstat Eireann is in accordance with the spirit of the proposed International Labour Recommendation.
(d) (i) There is no State system of insurance against industrial accidents in Saorstat Eireann.

(ii) The burden of the cost of accident insurance and workmen's compensation in itself provides an incentive towards the prevention of accidents and so the lessening of the burden. Insurance companies might assist by the granting of concessions by way of reduced premiums in cases where the incidence of accidents is light.

JAPAN

See reply to Question 1.

LATVIA

(a) The reply is in the affirmative. See reply to A. I. Question 4.

(b) The reply is in the affirmative.

(c) (i) and (ii) In case of imminent danger the responsible body should be empowered to require immediate compliance with the orders notwithstanding the right of appeal.

(d) (i) The Recommendation should contain a clause providing that, in countries where there is a system of insurance against industrial accidents administered by or under the direction of the State, the insurance institutions should be required, when fixing premiums, to take into account the measures taken in the various undertakings for the protection of the workers.

(ii) Accident insurance institutions or accident insurance companies might carry on suitable safety propaganda in industrial establishments.

LUXEMBURG

(a) The preceding reply having indicated that States should be in a position to prescribe a minimum standard of industrial safety, it should certainly be provided that the employer should be required to equip and manage his undertaking in such a way that the workers are sufficiently protected, regard being had to the nature of the undertaking and the state of technical progress.
Under the legislation in force in Luxemburg (Act and Regulations of 28 August 1924), the duty of employers or managers on the one hand, and of the workers on the other, in furthering in common the health and safety of the workers, is laid down in detail.

(b) It should also be provided that plans for the construction or alteration of industrial undertakings are to be submitted before the work is taken in hand for examination by the factory inspectorate or other competent authority in the matter in order that it may be ascertained whether the plans are such as to satisfy the safety regulations.

In the Grand Duchy of Luxemburg all industrial establishments classified as dangerous, unhealthy or unsuitable are only authorised to open after a detailed technical enquiry dealing principally with the conditions of health and safety of the workers. The same condition applies to authorisation to carry on underground work in mines and surface workings.

(c) In order that the State bodies responsible for applying the safety laws and regulations may carry out their duties satisfactorily, it would appear necessary that they should have the powers referred to in (c) (i) and (ii).

(d) Accident insurance institutions should at least have the right to group together, for the fixing of premiums, industrial establishments in different risk categories, taking account both of the frequency of accidents in each establishment and of the safety measures taken in each establishment. Insurance premiums being fairly high, this system would be a highly effective means of furthering safety.

NETHERLANDS

(a) The reply is in the affirmative.

(b) The reply is in the affirmative.

(c) (i) The reply is in the affirmative.

(ii) The powers proposed in this question would be fully justified in special cases to be specified by national legislation. At the same time the Recommendation should not attempt to lay down a general rule on the subject.

(iii) No reply is necessary as the answer to Question 2 (c) (i) is in the affirmative.

(d) (i) Under the Netherlands Accident Insurance Act, 1921 (Article 29), establishments liable to compulsory insurance are separated into categories according to their risk as regards
insurance. Each risk category includes a certain number of risk coefficients. In establishments which by reason of the industry carried on fall within the same risk category, a risk coefficient is given which corresponds to the degree of danger presented by these undertakings relatively to each other as regards insurance. When an establishment presents risks lower than those corresponding to the lowest coefficient of the category in which it is placed, it may even, with Royal authorisation, be placed in a lower risk category.

In allotting coefficients account is taken among other things of the safety measures adopted in the establishments.

If an employer considers that the State Insurance Bank should have allotted a lower coefficient to his undertaking, since by reason of full protection against accidents the danger is less than that of similar establishments, he is entitled to appeal from the decision of the Bank. It follows that the Government can reply to this question in the affirmative, and can consequently agree that insurance institutions should be empowered and required to take into account for the fixing of premiums the measures taken in the various undertakings for the protection of the workers.

(ii) In the opinion of the Government of the Netherlands, accident insurance is of considerable importance in relation to accident prevention. This opinion is justified in the first place by the reply to the preceding question.

If an employer knows that the coefficient allotted by the Bank to his establishment may be lowered on account of effective safety measures, with a resulting diminution in the premiums paid, he will be encouraged to develop safety measures in his establishment as far as possible. Such encouragement will be all the greater when the risk is assumed by associations of employers in the same or similar industries. Improvements in safety measures introduced by one employer will more easily be brought to the knowledge of others, and the common interest of employers in any particular category will induce employers whose undertakings are less advanced as regards safety to make the necessary improvements. Further, the factory inspection service may obtain from officials of the insurance institution valuable information on safety measures considered to be defective, should these officials notice defective safety measures when examining the right to benefit of an insured worker.

Norway

(a) The reply is in the affirmative.

(b) The reply is in the affirmative.
(c) (i) The reply is in the affirmative. There should be a right of appeal, the details of procedure, however, being left to the national legislation.

(ii) The reply is in the affirmative.

(d) (i) It should be possible to vary the premiums according to the different undertakings. A general obligation, however, covering all undertakings should not be established.

(ii) The most effective contribution would be obtained through an immediate and obligatory report to the Inspection Service of the occurrence of accidents and through a statistical report dealing with the accidents according to their causes.

POLAND

(a) In replying to this question the Polish Government desires to observe that the principles enunciated have been fully realised by Polish legislation, and their efficacy has been proved in practice. With this point one of the essential guarantees is introduced, without which it would be impossible to ensure the necessary standard of safety in a particular industry. The obligation laid on employers to equip and manage their undertakings in such a way that the workers are sufficiently protected is the only possible solution of the question.

(b) The submission of plans for the construction or alteration of factories to the factory inspectorate before the work is taken in hand, for examination as regards safety and hygiene, is undoubtedly desirable, both from the point of view of safety in general and from that of the employers' interests in particular. It might happen that if this were not done alterations might become necessary after the factory was built, with the object of greater safety, which would expose the employer to an outlay which might have been avoided if the plans had been previously examined. There are also cases where important and sometimes costly alterations, made to buildings already constructed or plant installed, are not sufficient to make them conform to the requirements of safety and hygiene.

(c) (i) In order to ensure the safety of the workers, it is essential that factory inspectors or other competent bodies should have the right to order the employer to take certain safety measures to comply with the regulations in force, or even in the absence of regulations. The employer should have a right of appeal in such cases.

(ii) In cases of imminent danger, the factory inspector or other competent authority should be empowered to require
immediate compliance with the orders, notwithstanding the fact that an appeal may have been made, if postponement might involve disastrous results.

(iii) See reply above.

(d) (i) Social insurance institutions which carry on the business of industrial accident insurance should be *required* to take into account for the fixing of premiums the measures of protection taken in the various establishments. It is essential that they should be so required and not merely empowered, in order that they should not be able to take an arbitrary advantage of the faculty accorded them in the matter.

Apart from legal provisions, the system of increasing insurance premiums for employers who fail to adopt compulsory safety measures would be an additional factor in ensuring conditions of work more favourable to the workers.

The above is one way in which accident insurance institutions may contribute to further the work of accident prevention.

(ii) The influence of workmen's compensation legislation or accident insurance legislation on safety is undeniable. In cases where compensation is directly payable by the employer, this influence is easily seen, since the desire of avoiding expense on account of accident compensation induces the employer to take safety measures in his factory. The cost of benefit under accident insurance systems is met through the premiums paid by the employers as a whole, and depends on the number of accidents. It follows that, viewed from the standpoint of the common interests of industry as a whole, the effect of insurance is to cause technical improvements to be taken with the objects of increased safety and of diminishing overhead charges.

There would, however, be a danger that protective measures might be neglected in particular cases, in view of the fact that the financial responsibility for the possible effects of accidents falls on the employers as a whole through the insurance institutions. It is with a view to opposing any such tendency that failure to take appropriate safety measures in particular establishments should be taken into consideration in fixing premiums.

The same object should be striven for by constant propaganda, as well as the adoption of special regulations. In this direction an important part might and should be played by social insurance institutions by initiating and organising such action on a large scale.

**Portugal**

(a) The reply is in the affirmative.

(b) Not only should plans for the construction or alteration of industrial undertakings be submitted for official examination,
but industries already in operation should be subjected to the same examination, and any changes required should be as far as possible insisted upon.

(c) (i) The reply is in the affirmative.
   (ii) In this extreme case the responsible body should be empowered to require immediate compliance, and the lodging of an appeal should not suffice to suspend the operation of the order.
   (iii) See the previous reply.

(d) (i) Insurance premiums should take account of material safety measures adopted in establishments.
   (ii) See the preceding reply.

**RUMANIA**

(a), (b) and (c) (i), and (ii). The reply is in the affirmative.

(d) (i) Accident insurance institutions should be empowered to take into account, for the fixing of premiums, the measures taken in the various undertakings for the protection of the workers.

**KINGDOM OF THE SERBS, CROATS AND SLOVENES**

(a) Regulations should be made requiring the employers to equip and manage their undertakings in such a way that the workers are sufficiently protected, regard being had to the nature of the undertaking and the state of technical progress.

(b) It is also necessary that all plans for the construction or alteration of industrial undertakings should be submitted, before the work is taken in hand, for examination by the factory inspectorate or other competent authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the safety regulations.

(c) (i) The bodies responsible for supervising the enforcement of the laws and regulations concerning the protection of the workers against accidents should be empowered to give orders in individual cases to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal to an authority specially organised for this purpose.
   (ii) The responsible body should undoubtedly be empowered in cases of imminent danger to require immediate compliance with the orders, notwithstanding the right of appeal.
(d) (i) Industrial accident insurance institutions, administered by or under the direction of the State, should be required to take into account the measures taken for the protection of the workers. In the case of a badly organised establishment the insurance institutions should be entitled to call for the payment of higher premiums, with a view to compelling the employer to adopt safety measures.

(ii) It is highly important that compulsory insurance institutions should co-operate actively in the work of accident prevention, since it is these institutions which are directly responsible for the benefits to which the victims of accidents are entitled. It is consequently in their interest financially that the number of accidents should be kept as low as possible. Under Chapter XIV of the Workers' Insurance Act in this country, the Central Insurance Fund is required to inspect factories by means of competent representatives, and to see that the regulations for the health and safety of the persons employed are applied. These regulations are applied in agreement with the factory inspectorate and have yielded excellent results. The most effective method of ensuring that an undertaking is really adopting safety measures is that provided for in the insurance legislation in this country, viz. a distinction is made between undertakings in the sense of allotting to each a danger percentage for the purpose of fixing accident insurance premiums, and in doing so regard is had to their technical organisation and the existence of safety measures.

There is no reason, even if the State is unable to provide inspection services, why the work of accident prevention and supervision of the enforcement of safety measures should not be entrusted to industrial insurance institutions, which have at their disposal a competent medical and technical staff.

Spain

(a) The employer should equip and carry on his undertaking in such a way that the workers are sufficiently protected, taking this to mean that, regard being had to the nature of the undertaking and the general state of technical progress, the workers may normally enjoy the advantages of protection and lessened danger.

(b) At first sight it might appear that the system of submitting plans for industrial undertakings to technical services, such as factory inspectors or other competent authorities, in order that it may be seen whether they satisfy the safety
regulations, might be an effective method of accident prevention, but it must not be overlooked that if such examination of plans means as a natural consequence official approval of the plans, it will very greatly lessen the employer's responsibility for possible accidents. It will also place the entire responsibility for the adoption of safety measures on the technical service, and these measures could with difficulty be indicated in detail for all undertakings of the same kind, since they are not always set up in the same conditions, and their arrangement and equipment may differ.

It cannot be denied that the submission of plans might be beneficial, but it should not exclude the employer's responsibility in case of accident. He should merely be free from the increased responsibility laid on his shoulders by certain laws in case of non-adoption of safety measures called for in the regulations.

Neither should it be forgotten that the necessity of submitting plans for the construction or alteration of undertakings may have disadvantages arising from a reluctance to divulge details of manufacturing processes in advance, and which may to some extent be considered as affecting the manufacturers' liberty.

(c) (i) With regard to the preceding reply, the system enforced by Spanish legislation is thought to be preferable. Under this system the inspectorate is empowered under the regulations to inform the employer of infringements which they may observe in the place of work, and to give practical effect to their observations by referring to particular breaches and imposing penalties in the form of fines. An employer who believes that he has been unjustly penalised has, of course, a right of appeal.

(ii) The previous question having been affirmatively answered, it is considered that in cases of imminent danger the responsible technical authority should be empowered to require immediate compliance with the orders, notwithstanding the right of appeal which a particular employer might lodge against the allegation of a breach of the regulations and the imposition of a fine.

(iii) In view of the preceding affirmative reply, no observation is called for here.

(d) (i) In countries where there is a system of insurance against accidents administered by or under the direction or supervision of the State, the insurance institutions should be required to take into account, for the fixing of premiums, the measures taken in the various undertakings for the protection of the workers. If it is thought too much to make
this a compulsory obligation, the institutions should be em­
powered to modify the premiums in relation to the degree of
protection afforded by the insured employer in his workshops.

(ii) Accident insurance institutions may contribute effec­
tively to the prevention of accidents by carrying on active
propaganda in favour of the methods suggested by experience
of previous accidents as being most suitable for preventing
a recurrence. In addition to propaganda of this kind, they
may also contribute effectively to accident prevention by increas­ing
or decreasing premiums, as mentioned above.

SWEDEN

(a) This question appears to overlap to a great extent
Question 4 of Part I. For the reasons explained in the reply
to that question it appears undesirable to adopt a provision
of this kind.

(b) A preliminary examination of plans for the construction
of industrial undertakings from the standpoint of safety would
evidently be highly desirable, and numerous errors which are
more or less irreparable after the construction is finished might
thus be avoided. It should, nevertheless, be observed here that
a preliminary examination of this nature is particularly impor­tant as regards hygiene. So far as the risk of accident is con­cerned, plans for the construction of buildings are of secondary
importance, apart from the question of evacuation in case of
fire. More importance attaches to plans for the installation
of machines, which are frequently decided upon only after a
considerable time.

The obligation on the employer to submit, as is proposed,
plans for the construction or alteration of industrial under­
takings to the factory inspectorate would, in many cases, be
an unjustifiable burden on the employer and might hinder the
work of construction. It would also involve a considerable
increase of work for the factory inspectorate if it became of
general application. It should also be observed that a preliminary
examination of plans by the factory inspectorate might prevent
the latter to some extent from taking subsequent action and
of calling for such measures as may appear indicated by
circumstances.

On account of the foregoing considerations it is thought
preferable that the proposed obligation should be replaced, as
is done in Swedish legislation, by a system which would allow
the employer to submit to the factory inspectorate, for prompt
examination free of charge, all plans for the construction or
alteration of industrial buildings and any new or altered arrangement of his works.

The Recommendation might also include a clause providing for the organisation of co-operation between the competent building authority and the factory inspectorate by which the former authority would communicate to the latter plans relating to any industrial building of any size.

(c) According to the principles on which Swedish safety legislation and its application are based, and to which reference was made in replying to Question 1 of Part II, the Swedish factory inspectorate is not entitled to issue binding instructions to employers. Their rôle is merely to give advice and indications. Supposing that the employer does not pay attention to the advice and indications, higher authority may, after hearing the employer—or in case of imminent danger without having heard him—order the suspension of work until the measure or measures considered necessary have been carried out. This procedure, which was considered to further the maintenance of good relations between the employers and the inspectors, has yielded highly satisfactory results, and it is only in exceptional cases that complaints of non-observance of the advice or indications of the factory inspectorate have been made. As far as Sweden is concerned, therefore, there is no reason for replying affirmatively to Question (i).

It may also be questioned whether, on the whole, there is any good reason for dealing with these questions in the Recommendation. As a matter of fact, the questions have already been treated in the Recommendation adopted by the International Labour Conference in 1923 concerning the general principles of factory inspection (V. 6), and may now be considered as more or less definitely settled.

(d) (i) The method of fixing premiums for industrial accident insurance has undoubtedly a favourable influence on safety, provided that the fixing of premiums is done with sufficient care, taking into account conditions of work in the various establishments and the cost of compensation. In Sweden, insurance institutions, whether State-controlled or private, are obliged to take into account, when fixing premiums, not only the risks proper to the kind of work in question, but also the particular conditions in which the work is carried out. It is thought that this obligation should be recommended.

(ii) Insurance institutions should be required, primarily in their own interests, to co-operate in the prevention of accidents. A suitable way in which this co-operation may be effected would be for the institutions to support researches into accident prevention and the Safety First Movement in general.
SWITZERLAND

(a) The Swiss Government is in agreement with the insertion of this stipulation in the Recommendation.

(b) The obligation to submit to inspection plans for the construction or alteration of industrial establishments is a logical consequence of the obligation to carry on the undertaking in such a way that the workers are sufficiently protected. It also safeguards the interests of the proprietor of the establishment and protects him from surprises. If plans are not submitted to inspection with the object of ensuring that they satisfy the safety provisions, it will be necessary for the building to be inspected before work is carried on in it. If it is then found that it does not fulfil the prescribed conditions, the changes which the proprietor would be required to effect in the construction would involve additional expense which would frequently be considerable.

It is therefore thought that the Recommendation should provide that plans for construction or alteration should be submitted for examination before the work is taken in hand.

It may be questioned, however, whether it is really desirable to impose such an obligation on all industrial undertakings without exception, or whether an exception ought not to be made in the case of small establishments working in special conditions, the existence of which might be endangered by methods and principles applied too strictly to the approval of plans.

(c) (i) It is considered that the bodies responsible for supervising the enforcement of the laws and regulations concerning the protection of the workers against accidents should be empowered to give orders in the individual case to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal to an authority specially organised for this purpose.

This system has the advantage of avoiding regulations in great detail which would be extremely difficult to draw up completely, while it refrains from surrounding the employer with a network of strict provisions which, by hampering his freedom of movement, might prejudice one of the essential conditions of manufacturing activity. Further, the law may be confined to general provisions and may leave a great deal of liberty in carrying them out so that in this way the special circumstances of each case may be taken into account.

At the same time, of course, the employer must be protected from abuse of authority on the part of the responsible body, and
against mistakes which might be committed through insufficient knowledge of special technical questions. In the opinion of the Government, such a guarantee might be given to the employer in the form of a right of appeal to an authority specially organised for the purpose, either composed principally of technically competent persons or having at its disposal, as is done in Switzerland, a committee of experts which gives an opinion on all technical questions.

(ii) Cases occur in which accident prevention would be rendered illusory if the measures considered to be necessary could not be immediately enforced. It would frequently be a simple matter to evade compliance with the orders by availing oneself of the period allowed for appeal and the time required for the authority appealed to to deliver its judgment. A building contractor, for example, whose scaffolding did not reach the standard of safety required would have no difficulty in allowing things to drag on until his work was finished. Similarly, in the case of work in quarries, sand pits, etc., labour economies might be effected through the adoption of quarrying methods of danger to the workers, and dangerous work of this kind might be terminated before the competent authority had decided an appeal. It is therefore thought desirable that the responsible body should, in one way or another, be empowered to require in cases of imminent danger immediate compliance with the orders.

(d) (i) The reduction of accident insurance premiums is one of the most powerful means of interesting employers in safety problems. It should, therefore, be recommended that insurance institutions should be empowered to take into account for the fixing of premiums the measures taken by employers for the prevention of accidents. It is thought, however, that it would be going too far to require them to do so. An obligation should only be laid down when there are ways of supervising its execution, and of enforcing penalties when it is not observed. The fixing of premiums depends on so many factors, however, that it would not be possible to say in a given case whether account had been taken of the safety measures taken in the establishment. In the view of the Government it would be sufficient to indicate the application of safety measures among the factors which determine the premiums for each undertaking.

(ii) With regard to the way in which accident insurance may contribute to the prevention of accidents by allowing reduced premiums to establishments in which safety measures are observed, the opinion of the Government has just been expressed. Insurance institutions may further collaborate in the work of accident prevention by according financial support to organisations dealing more especially with this matter. In
this way they may contribute to the various forms of research undertaken with a view to discovering the best means of avoiding the various categories of accidents and of finding and testing protective devices. They may also facilitate through financial help the organisation of prize competitions among inventors and may assist organisations in a general way when the funds at their disposal are insufficient. Insurance institutions may also assist their members directly by endeavouring to obtain a reduction in the price of protective devices, and where necessary by advancing the sums required for purchasing material of this nature. The experience of the Swiss National Accident Insurance Fund in this matter has been excellent. Rewards may also be granted by insurance institutions, as is done by safety associations, to employers, engineers, managers, foremen and workers who have distinguished themselves in some way or other in connection with accident prevention.

The above are a few of the ways in which accident insurance institutions or companies may contribute effectively to the work of accident prevention. There is thought to be no reason why the Recommendation should not mention them.

**Uruguay**

(a) The duty of ensuring security at work should be laid down, so far as the employer is concerned, in broad and general terms. The following is the standard observed by Uruguayan legislation: the Act of 21 July 1914, previously referred to, lays down that "the persons responsible for the conduct of industrial establishments, for constructional work of all kinds, for the exploitation of mines and quarries, and for any other work in which the workers are exposed to danger, shall take such measures of security as shall be necessary to avoid accidents arising from the use of machines, transmissions, etc., as well as for defects in equipment in general". It is also laid down that "the means taken shall be those indicated by the regulations issued by the executive power, special regulations being issued for each industry or group of similar industries". The penalties mentioned above ensure that this duty is carried out.

(b) It would appear desirable to lay down that no establishment should commence or recommence work unless authorised by the authorities responsible for ensuring safety at work. The authorisation should state that the machines and equipment have been examined and that the safety provisions issued have been complied with. This is the procedure which is followed in Uruguay.
(c) The procedure of the inspectors could not be more effective or expeditious. As has already been remarked, the inspector possesses a certain independence enabling him to punish breaches of the regulations at the moment of observing them. He may also, with the assistance of the police authorities, order the suspension of work until the employer has observed the safety regulations in force.

(d) This point is fully dealt with in the reply to Question 4.
PART A. II. QUESTION 3

Duties and participation of workers

Do you consider that legal provisions should be adopted to associate the workers with the work of accident prevention and to regulate the part which they should take?

(a) If so, with what matters do you consider that such legal provisions should deal, and what proposals have you to make on these matters?

(b) Do you consider, in particular, that such legal provisions should—

(i) contain rules defining the duty of the workers to comply with the laws and regulations on accident prevention;

(ii) provide for the participation of the workers in framing such provisions and supervising their observance?

(c) If the answer to (b) (ii) above is in the affirmative, in what ways (possibly varying according to the particular circumstances of each industry and the size of undertakings, etc.) do you consider that the participation of the workers could be carried out?

AUSTRIA

As the conduct of the individual worker plays an important part as regards safety, legal regulations in this respect are necessary.

Regulations on this subject should lay down in general that it is the duty of the worker to utilise the appliances provided
for his protection and to observe conscientiously the measures
ordered and the prohibitions issued in this respect.

The workers should also be associated with the supervision
of the observance of the safety provisions. In Austria, the
participation of the workers is governed by the Works Councils
Act (Act of 15.5.1919, St.G.Bl. No. 283, S. 2, Z. 5). Under the
Act the Works Councils are required to supervise the application
and observance of the laws and regulations on safety, works
hygiene and accident prevention, and, if necessary, to call in
the competent inspecting authority and to send members to
take part in enquiries made by the latter.

As regards participation in framing safety measures, the
larger workers' organisations should be called upon, at all
events in countries in which authorised workers' representative
organisations exist, with this object. This participation is insured
in Austria through the Safety Commission by which safety
measures are framed and in which representatives of all
interested parties, including the workers, are represented and
entitled to vote. Moreover, before such regulations are issued
the various representative organisations of the workers (cham­
bers of workers and employees) are heard.

**Belgium**

The reply is in the negative. In this case legislative measures
appear superfluous. The better course is to leave the field free
for private initiative.

**Canada**

Alberta.

It is considered that legal provisions affecting the worker
in the matter of accident prevention should be limited to the
prohibition of definite reckless acts, e.g. having matches in
possession in a coal mine; removing a guard from a dangerous
machine; or cleaning machinery in motion.

Manitoba.

Legal provisions not considered the most effective means
of bringing about the necessary and vital co-operative spirit.

Quebec.

The answer is in the negative.
Saskatchewan.

It is considered that to associate the worker with the work of accident prevention would not be practical for the reason that it might result in penalising the worker for being the cause, and as a result the workers' dependants may suffer.

Czecho-Slovakia

In the Republic of Czecho-Slovakia the participation of the workers in the work of accident prevention is governed by the Act on Works Committees, No. 330/1921, by the Mines and Mining Areas Councils Act, No. 144/1920, § 2 No. 1, and by Article 74 (c) of the Industrial Code and Article 102, para. 9, of the Industrial Act for Slovakia and Sub-Carpathian Russia. Under these regulations the workers may be required to observe the safety rules. It is not, however, desirable to associate the workers directly with the framing of safety regulations. Nevertheless, in Czecho-Slovakia preparations are at present being made for an industrial safety commission, which will submit to the Government proposals and suggestions relating to regulations and measures to be taken for the protection of the life and health of the workers. The workers' industrial organisations will also be represented on this commission.

Denmark

In any case general legal provisions should be adopted to associate the workers in the work of accident prevention, e.g. by interesting them in the safety movement as far as possible and by allowing them to participate in it. Regulations should also provide penalties for workers removing safety devices or otherwise preventing them from operating.

The question whether other provisions in this respect should be made will undoubtedly depend upon the possibility, through agreement between employers and workers and their organisations, of arriving at satisfactory regulations for the collaboration of the workers in the prevention of accidents. If it is possible for this to be done the Legislature need not deal with the question.

Estonia

Legal provisions should be adopted with a view to defining the workers' duty to conform with safety laws
and regulations, and with a view to associating the workers in the task of framing such regulations and supervising their observance.

FINLAND

If the work of accident prevention is to be effective, legal provisions should be enacted to oblige the workers to participate in the work of accident prevention. Experience in Finland has shown the desirability of legal provisions to the effect that the workers should be required under penalty to observe the laws and regulations on accident prevention. It is desirable that the workers should be associated in the framing of these provisions, and this could be arranged with the help of the trade unions concerned. The workers might co-operate in supervising the application of the laws and regulations, e.g. by means of representatives (hommes de confiance), which, under the laws of certain countries, the workers have the right to choose from their number.

FRANCE

It is desirable that the workers should participate in the work of accident prevention. Such participation may, if necessary, be brought about and regulated by law.

(a) The regulations which it appears desirable in this connection to include in the Recommendation are set out below in reply to (c).

(b) (i) It would no doubt be desirable that the workers should be obliged to comply with the laws and regulations on accident prevention, but such an obligation could only be laid down if penalties for breaches of regulations were provided. Legal provisions might at least require manufacturers to include penalties in the workshop rules for workers who do not comply with the safety rules and who omit to utilise protective devices.

(ii) The participation of the workers in framing regulations is in course of realisation in France, and a certain number of safety regulations have been drawn up after consulting mixed commissions in which the employers' and workers' organisations concerned are represented. Further, the Higher Labour Council, desirous of having this system extended generally, adopted the following resolution in November 1928:

"The Higher Labour Council expresses the hope that the measures to be taken for the application in a particular trade or district of social legislation and legislation for the protec-
tion of the workers, particularly that which deals with hygiene and safety, should be more frequently prepared with the assistance of mixed commissions or other joint organisations in which the employers' and workers' organisations in that trade and that district are represented."

As regards the participation of the workers in the application of the safety measures, their assistance has been called for on various occasions during the meeting of mixed commissions with representatives of the employers' and workers' organisations, with the object more particularly of drafting schemes for the application of regulations already in existence in industries or districts where the application of the regulations may meet with difficulty. This was done for instance in the case of the removal of dust in the polishing trade.

(c) Apart from collaboration through their organisations in the framing and application of the regulations referred to above, the workers may also take part in the work of safety committees in the larger establishments. These committees, which consist of engineers, foremen and possibly workers, meet periodically to enquire into accidents which have occurred, to analyse their causes and to examine methods of avoiding their repetition. The discussions and suggestions of the committees are forwarded to the management, which usually pays great attention to them. There are already committees of this kind in France, particularly in the engineering trades. Good results have been obtained from the committees, which are likely to have an important influence in diminishing the number of industrial accidents.

GERMANY

(a) The reply is in the affirmative.

The workers should participate in the prevention of accidents, not only by furthering the prevention of accidents in individual undertakings, but also in a general way when safety regulations are issued by the State and the accident insurance institutions. The trade unions should be heard before Government regulations are issued. In so far as accident prevention forms one of the duties of the autonomous administration referred to above, and trade unions are represented on the autonomous administrations, such as the German trade corporations, provision should be made for the workers' representatives to be entitled to participate in the framing of safety regulations, as also in the supervision of their observance. In individual establishments the Works Council, a workers' committee or an official representative of the workers should co-operate in the application of
the regulations and call the attention of the factory inspectorate to any default in this respect. The workers should also be associated with the supervision of the regulations by means of the appointment of former workers as assistants in the service of factory inspection.

(b) (i) It is the duty of the worker not only to comply with the laws and regulations on accident prevention but also to utilise carefully the safety appliances.

(ii) See answer to Question 3 (a).

GREAT BRITAIN

The British Government consider it highly desirable that workers should be associated with the managements of the factories in the work of accident prevention (this is an essential principle of good "Safety First" organisation) but regard it as preferable that this should be obtained, if possible, by voluntary action rather than by legal compulsion.

As regards the framing of safety regulations for particular industries, under the powers given by the Factory Act both the employers and workers are given a voice in the settlement of the regulations. A draft of the regulations has to be issued in the first instance, and employers and workers have the right to lodge objections or requests for modification, and in the event of agreement not being reached, to have their proposals heard at a public inquiry. Further, before the draft even is issued, the subject is usually discussed at conferences with employers and workers. In some cases, regulations have been proposed by bodies representing employers and workers jointly.

It is the practice in framing the regulations to impose definite duties on the workers as well as the employers,—see section 85 of the Factory and Workshop Act, 1901, also clause 106 of the Government's Factories Bill, 1926.

HUNGARY

As statistics have invariably shown in all industrial States that a large number of accidents are due to the workers themselves, nothing should be neglected which would associate the workers in the work of accident prevention. It is evident that regulations for the worker are generally less effective and more difficult to apply in practice than measures to be observed by the employer. Even if only for the sake of establishing a
principle, however, the duty of the workers in this matter should be laid down by law.

(a) and (b) (i) In practice, regulations prescribing the employer's duties are only effective if they are also respected by the workers, and, therefore, the corresponding duty should also be prescribed for the workers.

Penalties are also necessary to ensure that the duty of the workers is observed. The persons responsible for supervising the observance of the regulations should, when visiting a factory, observe the conduct of the workers, and in cases where workers fail to comply with the regulations the same severity should be observed as in the case of employers.

(ii) Before safety regulations are drawn up all parties interested, including the workers, should be consulted. This is specially desirable in the case of regulations to be observed by the workers.

The direct supervision of the observance of the regulations can only be carried out by impartial and unbiased experts.

(c) It is desirable that the workers should be enabled to understand the working of accident prevention and to have some influence on safety measures. The methods of their participation should preferably be left to the judgment of individual States.

India

Note: See note at head of reply to Question 1 of Part A.I.

Owing to the general illiteracy of the workers in India, it will not be possible to adopt any legal provisions for the association of workers with the work of accident prevention.

Irish Free State

Before any regulations relating to the safety of workers engaged in industrial concerns are made in Saorstat Eireann, organisations of workers concerned are consulted and their views taken into consideration. There is, therefore, in this country a recognised participation of the workers in the framing of such provisions and many of the regulations contain clauses to the effect that a statutory obligation is imposed on the worker to utilise safety guards, devices and other equipment or protective clothing provided by the employer under these regulations. If workers do not act in accordance with the regulations, provision exists for taking legal proceedings against them in a court of law.
**JAPAN**

See reply to Question 1.

**LATVIA**

Legislative provisions should be adopted obliging the workers to participate in the prevention of accidents. Such regulations should compel the workers to comply with the laws and regulations on accident prevention under penalty. The participation of the workers in framing the provisions (i) might be realised through the trade unions concerned.

**LUXEMBURG**

The workers should take their share of responsibility and co-operation in the common safety efforts in the same way as the employers.

In the Grand Duchy of Luxemburg the duties of the workers in connection with safety are laid down by the Regulations of 28 August 1924 in the same way as the duties of the employers.

With regard more particularly to the participation of the workers in supervising the observance of the safety regulations, this is provided for in the Grand Duchy of Luxemburg by the legal Decree of 8 May 1925 on the institution of workers' delegations in industrial establishments. Under Article 22 of this Decree the delegations are required to assist in the movement against accident and disease, and to assist factory inspectors and the competent authorities by such proposals of utility as they may be able to make.

This system has hitherto yielded good results.

**NETHERLANDS**

The reply is in the affirmative.

(a) The workers should be responsible for seeing that regulations concerning hygiene and safety are observed. i.e. in so far as the workers are responsible for their observance.

(b) (i) Arising out of the reply to Question (3) (a), the reply to this question is in the affirmative.
(ii) It is desirable that the workers should be consulted on the provisions in question. In the Netherlands this consultation takes place through the Higher Labour Council, which is composed as to one-third of its members by representatives of the workers, and which is consulted on proposed legislation affecting labour interests. The supervision of the observance of the laws and regulations should be left to factory inspection officials who are expert in the matter in question.

(e) See reply to Question 3 (b) (ii).

**Norway**

The reply is in the affirmative.

(a) The provisions should deal with the participation of the workers in framing such regulations, the workers' relation to the Inspection Service, and their representation in the said Service; moreover, with sanctions for infringements of the law. Details should be left to the national legislation according to the special conditions of the country concerned.

(b) (i) The reply is in the affirmative.

(ii) The reply is in the affirmative.

(c) The said participation should be carried out by consulting the organisations of the workers and through the workers' representation in the Inspection Service. It should be left to the national legislation to determine to what degree and how the said provisions should be put into practice. Every worker should have a right to apply to the Inspection Service without his name being made known.

**Poland**

In view of the important part played by labour in connection with industrial safety, the rights and duties of the workers as regards safety should be defined by law.

(a) The regulations should deal with the duty of the workers to comply strictly with the safety regulations, the participation of workers' organisations in framing safety regulations, and the participation of the workers in supervising safety in industrial establishments.

(b) See reply to paragraph (a).

(c) The question of the participation of the workers in framing safety provisions and supervising their observance
should be regulated in the various countries according to legisla-
tion and local custom.

In Poland, for instance, the workers' representatives take
part in the work of the Labour Protection Council by expressing
their views on the subject of safety regulations. Further, the
Ministry of Labour and Social Welfare may appoint assistant
inspectors from the ranks of the workers, whose duty is to
cooperate with the factory inspectorate in supervising the
observance of the safety regulations.

PORTUGAL

See reply to Question 3 of Part A. I.

ROMANIA

The reply is in the affirmative.

(a) The matters with which legal provisions should deal
should be decided by national law.

(b) (i) and (ii) National laws or regulations should make
it compulsory for the workers to observe the legal or other
regulations on the prevention of accidents. The workers should
be authorised by law to supervise the observance of the safety
regulations.

(c) The methods of participation of the workers in
supervising the observance of the regulations should be left
to national legislation to decide.

KINGDOM OF THE SERBS, CROATS AND SLOVENES

(a) and (b) (i) and (ii) The workers should be associated
with the prevention of industrial accidents. Legal provisions on
this matter should be confined to laying down that it is the
duty of the workers to comply with the safety regulations and
to participate in framing safety regulations and supervising
the application of legal provisions when they are invited to do
so by the authorities or the employer.

(c) This participation may be assured by workers' representa-
tives, as provided by section 109 of the Workers' Protection
Act in this country, while in larger establishments it may be
carried out by means of a competent personnel.
Spain

(a) Measures should be taken to ensure that the workers are associated in the work of accident prevention.

(b) (i) The worker should be legally compelled to comply with the laws and regulations on accident prevention. The question is what penalty should be imposed for failure to comply with the regulations — i.e. whether responsibility should be incurred in cases in which the inspectorate has cognisance of the infringement of the breach — a responsibility which might arise by considering failure to observe safety laws or regulations as a serious offence and a breach of the labour contract.

(ii) Legal measures should be taken to provide for the participation of the workers in framing safety provisions and supervising their observance. The way in which the workers may participate should be left to the decision of the legislature in each country, since it would differ according to the participation of the worker in the general work of inspection, or in the administration of the various internal regulations of industrial undertakings, in accordance with the regulations or the general law of the country.

(c) The participation of the workers might be arranged for through the explicit recognition of the right to report breaches of the regulations to the inspecting authorities, through collaboration in the work of inspection, through appointment as assistant inspectors, or through participation in works councils or industrial councils where such exist.

Sweden

While the participation of the workers referred to here has already been dealt with in the Recommendation adopted in 1923 by the International Labour Conference concerning the general principles of factory inspection, as well as in the present Questionnaire, it is thought that the reply of the Government should be in the affirmative.

(a) A special arrangement for the co-operation in question has long existed in Sweden. The Factories Act provides that when the workers in a factory have chosen among themselves one or several delegates to submit to the competent inspector their demands concerning safety or hygienic conditions, the inspector shall, when visiting the establishment, give the workers' delegates an opportunity of carrying out their instructions.
The employer is required, on the occasion of a visit of inspection, to inform the inspector of the step taken by the workers and to inform the delegates of the inspector's presence. The inspector is also required to give free of charge to the workers' delegates a copy of his advice or indications concerning the establishment.

The number of establishments having workers' delegates is continually increasing, and the system is considered to have effectively furthered the safety of the workers.

The Government therefore recommends that, with a view to obtaining the co-operation of the workers, legislative provisions should be adopted, more or less in the conditions and in the form just indicated, to provide for the duty of workers' representation.

(b) (i) Suitable legislation should be adopted to oblige the worker to comply with the laws and regulations in force on accident prevention. The Swedish Factories Act provides penalties for workers who wilfully and without valid excuse remove or put out of operation a protective device. Under the Accident Insurance Act, compensation may be reduced if it be shown that the accident is due to the fact that the injured person has not complied with the regulations or instructions in force for the prevention of accidents and that he may be considered on that account as guilty of grave negligence.

(ii) Since the provisions at present in force governing the legislatures of the different countries may be considered to guarantee the participation of the workers in framing safety regulations, it appears unnecessary to make special legal provision for this.

With regard to the co-operation of the workers in supervising the observance of the safety regulations, attention is drawn to the reply made under (a).

(c) No reply is returned to this part of the question.

SWITZERLAND

The highest importance is attached to the participation of the workers and their organisations in the work of accident prevention. Such participation should be concerned not only with framing and supervising the observance of the provisions, but also with their execution. It may therefore be said that in a general way the participation of the workers and their organisations is desirable and necessary. Notwithstanding all the regulations and all the duties laid upon the employer, the prevention of accidents would be without great effect if the workers did not share wholeheartedly in the measures taken for avoiding acci-
dents. The best means of obtaining such a result is to associate them in the framing of regulations and in the whole work of safety in general.

On the other hand, in a sphere such as this, which is only in course of evolution, it is thought to be exceedingly difficult to lay down formal legal provisions. The way in which the workers' participation may be regulated by the law depends largely on the political and economic constitution of the different States. A method of participation which was adapted to one might be utterly inapplicable in another. Further, it should not be forgotten that the method of participation also depends on the nature and size of the undertaking. Some of the methods in force in the larger undertakings might not be capable of application in smaller establishments. Moreover, participation of this kind may be obtained to a large extent notwithstanding the absence of any legislative provision on the matter. It is therefore preferred that the Recommendation should not invite the States Members to adopt legislative provisions on the subject, but should confine itself to stating the principle of the utility of associating the workers in the work of accident prevention.

(a) In view of the opinion which has just been expressed, the Government has no special proposals to make.

(b) (i) In the opinion of the Government it goes without saying that the worker as well as the employer should conform to the safety laws and regulations. It is inconceivable that the employer should be obliged to take safety measures while the worker was free to ignore them. At the same time, it is thought that, in compulsory accident insurance systems such as that obtaining in Switzerland, it is unnecessary to make express provisions on the subject. The best form of penalty would be to reduce insurance benefit in the case of a worker who failed to observe the safety regulations, whether deliberately or through negligence.

(ii) The Government approves the conception that the workers should be associated in framing safety regulations, and does not object to the embodiment of the principle in legal texts. By giving the workers an opportunity to put forward their experiences it will be possible to frame regulations corresponding to practical requirements. It may be mentioned in this connection that in Switzerland Article 47 of the Accident Insurance Act lays down that the larger associations of employers and workers should be called upon to give an opinion on the safety measures taken by the National Fund.

With regard to the question of supervising the observance of the regulations, it is thought that this should be done by bodies which are independent both of the employers and the
workers. This does not mean, however, that when these bodies are constituted the interests of workers and employers should not be taken into account in an equitable manner.

(c) When dealing in the foregoing replies with the establishment of safety regulations the Government has had in mind general provisions and provisions of a kind which would be applied in a general way, and it was indicated that the framing of detailed provisions should be avoided. In order to ensure that the workers are associated in framing such general provisions it is thought sufficient to lay down that before they are drafted representatives of the workers in the various forms of industry to which the provisions would be applied should be heard.

Uruguay

It is desirable that the principle of the workers' participation in the work of accident prevention should be embodied in the law. This participation is based on two considerations: (a) it may be considered as the exercise of an individual right, or, which comes to the same thing, the worker should have the right to co-operate in making effective the "right to security at work" which the law has enacted in his favour, and (b) it may also be considered as an aspect of the collective right to participate in management which is accorded to labour as an agent or factor in production.

Such participation may take various forms. The trade unions may, for example, be given the right to appoint supervisory committees to collaborate permanently with the factory inspectorate (this solution is adopted in the draft Labour Code referred to above, which also gives the trade unions the right to appoint special representatives to the Higher Labour Council). It may also take place through the appointment of worker inspectors elected and removed by the most representative unions. This is the method proposed by the Department of Labour for railways, tramways and maritime work. Another form in which participation may be realised consists in associating experienced workers with some of the duties of the factory inspectorate. This principle was agreed to by the Ninth Conference, on the proposal of the Uruguayan Delegation, in the case of maritime work. Yet another means may be adopted in countries where works councils exist, under the laws on "workers' participation in management" and "trade union control of industry" (Germany, Czechoslovakia, Austria, Norway, Luxembourg), or by the voluntary act of the employers (United States), or under pressure from the public authorities (Great Britain, Whitley Councils). These councils, which enable the workers
to participate in the management of industry, are, as much by the part which they play as by their composition, the most suitable bodies for taking useful and beneficial action in this matter. Lastly, a fifth method might consist in allowing trade unions possessing legal personality the right to proceed in a court of law against the delinquent employer. The right to bring an action of this kind is in harmony with the nature of the unions and the part which they play under the laws recognising their existence and regulating their functions. The trade union is an organisation created with the object of studying, developing, and defending the social and economic interests of its members. One of these interests is the protection of the workers from the risks which threaten them. A right of action lies with any person having an interest in the matter, and if an action is, as is commonly said, the appropriate means of asserting a right, it is logical, in the opinion of the Uruguayan Government, to accord to the trade unions the right to sue a delinquent employer in the Courts.

As a corollary to the right of intervention, the law should lay down the principle that it is the duty of the worker to do all in his power to avoid accidents. Without its being necessary to modify the general regime, which does not refute the workers’ right to compensation when the accident is attributable to slight or serious fault on his part, it may be laid down that it is the duty of the worker “to abstain from any act which might endanger his own safety or that of his comrades or third parties, or that of the establishments, workshops and machines”. Non-compliance with this duty should be recognised by the law as a proper reason for dismissal. The draft Labour Code mentioned above contains these two provisions, without in any way affecting the principle of occupational risk, broadly conceived, on which is based the Accident Compensation Act of 26 November 1920.
PART B. QUESTION 1

Indication of weight on packages transported by vessels

(a) Are you in favour of a Draft Convention or of a Recommendation to make it compulsory for the sender to indicate the weight on heavy packages transported by vessels?

(b) If so, what limit should be fixed above which the weight should be marked on the packages?

Austria

A uniform indication of the weight of heavy packages is unlikely to serve the cause of accident prevention, since the danger of accidents differs widely according to the kind of loading and unloading apparatus, the size of the package, the distance over which it has to be carried or otherwise conveyed, and the relative level to which it has to be raised or lowered.

Belgium

(a) There can be no question here of anything but a Convention which would be generally applied in all countries and would be concerned with all exporters of any importance.

(b) It might be recommended that each country should insist upon a clear indication of the weight of all packages which are to be handled in ports, landing-places, and stations and which weigh more than 1,000 kilograms.
CANADA

Alberta.

It is considered desirable that all packages weighing over 200 lbs. whether transported by ship or rail, be plainly marked with their weight. A Recommendation of this nature could only be enforced in Canada by the Parliament of Canada.

Manitoba.

(a) Recommendation.
(b) Approximately 30 lbs.

Quebec.

The reply is in the negative.

Saskatchewan.

(a) The reply is in the affirmative.
(b) 150 lbs.

CZECHOSLOVAKIA

It is recommended that the International Labour Office should adopt a Draft Convention making it compulsory for the sender to indicate the weight on heavy packages transported by vessels. If packages are to be raised by elevators, cranes, etc., the indication of weight should correspond to the lifting capacity of the apparatus, e.g. 500 kilograms in the case of inland navigation and 15 quintals in the case of sea-going vessels. If the packages are transported by hand, the weight ought to be indicated when it is above 75 kilograms.

DENMARK

(a) The reply is in the affirmative. It is desirable that a Recommendation should be adopted making it compulsory for the sender to indicate the weight of packages above a certain weight.

At the same time in drafting such a Recommendation the difficulties in the way of international exchange of goods in a port should not be overlooked so long as the provisions are not adopted in all countries trading with the port in question.
(b) The minimum weight to be indicated on the packages might be 1,500 kilograms and in any case should not be less than 1,000 kilograms.

**Estonia**

(a) A Recommendation is considered preferable.

(b) 150 kilograms.

**Finland**

(a) If it were made compulsory in every country to declare the weight of heavy packages transported by vessels, it would undoubtedly help to prevent accidents during the loading, unloading and shifting of the packages, and the inclusion in the Recommendation of the duty of thus indicating the weight must be supported.

(b) As regards the limit above which the weight should be indicated on the packages, the Government is in favour of the proposal fixing this weight at 1,000 kilograms.

**France**

An indication of weight on large packages transported by vessels would be of great utility for the protection of the workers who have to handle them. At the same time, it seems desirable, in view of the complex international problems raised, to consider at first a Recommendation only.

(b) The weight should be indicated, in the case of packages to be transported by lifting apparatus, when the weight is above 1 ton.

**Germany**

(a) The adoption of a Draft Convention on the subject is recommended.

(b) If it is intended that the necessity of indicating the weight should be limited to heavy packages which might cause danger to existing lifting apparatus and indirectly thereby to the workers, a gross weight of 500 kilograms might be sufficient in the case of inland harbours and 1,500 kilograms in seaports. If, however, it is intended that the weight should be indicated on all packages which might involve danger to individual workers through being too heavy, the compulsory indication of weight should start as low as 75 kilograms gross: it is
scarcely likely, however, that such a requirement could be enforced. It would be desirable that all countries should not only adopt regulations for the indication of weight, failure to do so in individual cases being all the more dangerous, but should also adopt uniform units of weight and uniform methods of indicating it. Mention might also be made in this connection of the desirability of having a clear indication of lifting capacity on every lifting appliance.

**Great Britain**

(a) The British Government would be in favour of such a provision *if practicable* but the feasibility of it seems to call for further examination. In particular it must be pointed out that each country could only enforce it in respect of packages originating within its own territory, and that to be fully effective, the provision must be adopted and enforced equally by all countries. Any Recommendation should be made conditional on the acceptance of the provision by a number of countries sufficient to make it practically effective.

(b) The British Government has no definite views but suggests that one ton would be a convenient limit to adopt.

**Hungary**

(a) To make it compulsory for the sender to indicate the weight on heavy packages transported by vessels would be a highly desirable measure of safety. A Draft Convention with this object should be laid before the forthcoming International Labour Conference.

(b) The limit above which the weight should be marked on the packages might be fixed at 75 kilograms.

**India**

*Note: See note at head of reply to Question 1 of Part A.I.*

(a) If an international Convention or Recommendation is favoured by other countries, the Government of India are prepared to agree. They would prefer a Recommendation to a Convention.

(b) The limit should be one ton.
IRISH FREE STATE

(a) The Government would favour a Recommendation making it compulsory for the sender to indicate the weight on heavy packages transported by vessels. The acceptance of this Recommendation by Saorstat Eireann would be conditional on its acceptance by other countries that trade with the Saorstat.

(b) Two tons.

LATVIA

(a) The reply is in the affirmative.

(b) The limit above which the weight should be marked on the packages might be fixed at 1,000 kilograms and over. The States Members are obliged to guarantee the accuracy of the indication of weight of packages intended to be transported by vessels.

LUXEMBURG

This question does not concern Luxemburg. Humanitarian and social considerations appear to require that workers employed in loading and unloading ships should be insured against accidents in the same way as their comrades in other industrial establishments. Similarly the adoption of a Draft Convention or Recommendation making it compulsory for the sender to indicate the weight on heavy packages transported by vessels seems to be indicated.

NETHERLANDS

(a) It is desirable that the obligation suggested should be embodied in a Draft Convention, since packages are usually handled in several countries, and consequently uniform regulations are essential if they are to be effective and if the possibility of competition is not to be influenced. It should be compulsory for the sender to indicate the weight, and by the sender is meant not the forwarding agent, but the original sender of the package as distinguished from the addressee.

It should be observed that the indication of the weight will only be useful in cases where effective supervision would prevent the loading and unloading of packages by hoisting apparatus which is inadequate for the weights indicated on the packages. It frequently happens that, in the absence of stronger and consequently more expensive apparatus, an object weighing 5,200 kilograms is conveyed by hoisting apparatus constructed for objects not exceeding 5,000 kilograms. Care must also
be taken to ensure that the correct weight is indicated on the package. This is not always done in cases where transport is paid for by weight.

(b) The limit may be fixed at 500 kilograms.

Norway

(a) The reply is in the affirmative. A Draft Convention is preferred.

(b) 1,000 kilograms.

Poland

(a) It is desirable that a Convention should be adopted making it compulsory for the weight to be indicated on heavy packages transported by vessels. Such a measure is necessary in order to prevent accidents which might be caused by packages too heavy for the apparatus which is to raise them, or for transport by hand.

(b) It is desirable that the weight of packages weighing more than 75 kilograms should be indicated, since experience shows that such packages may cause physical injury to workers transporting them.

Portugal

(a) This would be desirable. Practical difficulties may, however, be met with, on account of the existence of States which do not belong to the League of Nations, and others which, although Members, may decide, for one reason or another, not to adopt the Convention or Recommendation.

(b) The weight should be indicated on each package when it exceeds 100 kilograms, with the exception of those the weight of which is commonly known, such as hogsheads, bales of cork, sacks, etc.

Rumania

(a) The reply is in the affirmative.

(b) 50 kilograms.

Kingdom of the Serbs, Croats and Slovenes

(a) and (b) The sender should be obliged to indicate the weight on every package transported by ship above 50 kilograms.
Spain

(a) An affirmative reply must be returned to this question. The Government is in favour of a Draft Convention making it compulsory for the sender to indicate the weight on heavy packages transported by vessels.

(b) A limit based on the weight only could not be fixed without taking into account the nature, size and shape of the object. Packages of the same weight may offer a greater or less risk of accident according to their volume and external features, the risk varying still more according to the conditions of transport from one place to another during loading and unloading.

In view of the effect of the conditions in which packages are moved and the methods employed, it should be left to the legislation of each country to issue regulations, taking into account the nature of objects and the usual conditions of transport when loading and unloading, to fix the limit of weight below which it is unnecessary for it to be indicated.

Sweden

Although the suggested requirement might in certain cases be of utility, it is unlikely that it would prove to be very efficacious. By far the larger part of cargoes is constituted by goods in bulk, which would not be touched by a provision of this kind, and it is obviously intended that small packages should be exempt from the compulsory indication of weight, as paragraph (b) appears to suggest, although it is obvious that when several such packages are slung at the same time the risk is the same as when single heavy packages are handled. It should be added that the weight of those classes of packages which are forwarded by sea to any distance is generally known without the necessity of marking. The duty of indicating the weight would also increase the trouble and work of forwarding agents and others, and the drafting of suitable legislation and the supervision of its observance would probably raise certain difficulties.

In view of these considerations, some hesitation is felt as to the advisability of requiring the senders of heavy packages by sea to indicate the weight on the packages. At all events, it is not thought that this obligation should be the subject of a Convention, but merely of a Recommendation, nor that it should apply to packages under 1,000 kilograms in weight.
SWITZERLAND

(a) and (b) It is primarily for States in possession of a maritime fleet to say whether international regulations in this respect are necessary. It is certain, however, that international regulations would also affect the export trade of countries which have no direct means of access to the sea.

Assuming that the necessity of international regulations on the subject is recognised by the maritime States, the Swiss Government would be in favour of a Recommendation rather than of a Draft Convention.

URUGUAY

(a) and (b) In the opinion of this Ministry there are no reasons for holding that protection against industrial accidents should form the subject of a Draft Convention limited to workers employed in loading and unloading ships. The Treaty of Peace lays down that the decisions of the Conference may take the form of Recommendations or Draft Conventions. The former are designed to further the development of national legislation. The object of the latter is to lay down the basis of international labour law, with a view to avoiding the severe competition to which States are exposed which have bettered the working and living conditions of their workers, as against other countries in which the law does not ensure the same advantages. There is no lack of legislation on industrial accidents in every country, and it is thus indicated that the ground is prepared for the adoption of a Draft Convention. Nothing would therefore be more logical than to draw up a Draft Convention covering all industries. As this has not been considered, and as the International Labour Office has apparently decided to study the possibility of a simple Recommendation, it is thought logical that this form of decision should be adopted in the case of maritime work.

Recognising, therefore, that on this account it is more logical that a Recommendation should be adopted, the Ministry agrees with the suggestions contained in paragraphs (a) and (b), and considers that the maximum weight of the packages might be fixed at 60 kilograms.
PART B. QUESTION 2

Protection of machinery

Are you in favour of a Draft Convention or of a Recommendation to the effect that provision should be made by national laws or regulations making any firm or person within the country concerned supplying or installing power-driven machinery for use within that country (without prejudice to the responsibility of the employer using such machinery) responsible for seeing that such machinery complies with any safety regulations laid down by the national laws or regulations in respect of machinery of that type?

AUSTRIA

So far as accident prevention alone is concerned, there could hardly be serious objection to a Draft Convention such as is here proposed, but there are questions of an economic character which have to be carefully examined in connection with the problem, and which would hinder the adoption of a Draft Convention of the kind suggested.

BELGIUM

The reply to this question must be in the negative. The measure suggested would in practice be of no utility. The responsibility of the employer, which it is undesirable to lessen, is sufficient.

CANADA

Alberta.

It is not considered that a statutory regulation requiring a manufacturer of machinery in this Province, supplying power-
driven machinery for use in this Province, to equip such machinery in a particular way is necessary in view of the fact that both manufacturer and purchaser know the statutory conditions applicable to its use, and that the same may be changed from time to time.

**Manitoba**

Recommendation.

**Quebec.**

The reply is in the negative.

**Saskatchewan.**

The reply is in the affirmative.

**Czechoslovakia**

Under paragraph 2 of Article 74 (d) of the Industrial Code, corresponding to paragraph 10 of Article 102 of the Industrial Act of Slovakia and Sub-Carpathian Russia, the Minister of Commerce, in agreement with the Minister of the Interior, has the right in Czechoslovakia of specifying those machines intended for industrial use which may not be bought or sold in the country unless they satisfy certain safety regulations. The Government of Czechoslovakia is consequently in favour of the adoption, by the International Labour Conference, of a Draft Convention to the effect that provision should be made by national laws or regulations to the effect that any firm or person, within the country concerned, supplying or installing power-driven machinery for use within that country is responsible for complying with the respective safety regulations issued under national law. Before such machines are put into operation, the industrial inspection service (factory inspectorate) should examine them to ensure that the standard of safety is really adequate.

**Denmark**

In view of the fact that experience in Denmark, where legal provisions of this kind have been in force for years, has
shown such a system to be of decisive importance in removing the dangers of machines, it is recommended that provisions of this kind should be adopted.

This might be done by means of a Recommendation.

**ESTONIA**

This question already seems ripe for treatment by means of a Convention.

**FINLAND**

The addition of the necessary safety devices to machines can in most cases be more easily effected in the factory where the machine is built. This can only be realised by means of international regulations. It is therefore recommended that an international Convention be adopted to the effect that the States Members should legally prohibit the manufacture or utilisation within their frontiers of specially dangerous machines or appliances when they are not furnished with adequate means of protection.

**FRANCE**

The manufacturer is in a better position than anybody else to furnish the dangerous parts of machines with protective appliances. It is therefore desirable that national laws or regulations should make any firm or person supplying or installing power-driven machinery responsible for seeing that the regulations made under national law for machines of that kind are observed. It is thought that for the moment, however, a Recommendation only should be considered, in view of the complex international problems raised.

**GERMANY**

A Draft Convention of the kind in question would be desirable. The International Labour Office should, however, endeavour in this connection to secure the adoption of an international minimum standard of safety for machines, so that in the near future an international minimum safety standard may be reached through regulations for export.
GREAT BRITAIN

The British Government are in favour of the principle underlying this proposal, but are of opinion that it would be going too far to make the person manufacturing or supplying a machine responsible for seeing that it complies with all the safety requirements. For instance, there are in many cases different methods for safeguarding a particular class of machine, and an employer may quite reasonably prefer a method different from that adopted by the maker of the machine. Reference may be made to the provision on the subject included in the Government's Factory Bill of 1926 (clause 16); it has not been felt practicable to go further than this in the first instance.

HUNGARY

As in practice safety devices forming part of a machine are of greater utility than others, principally on account of the fact that the worker accustoms himself to them more quickly and cannot behave as though they did not exist, it would naturally be desirable that all machines sold or installed should be provided with the necessary safety devices.

It would therefore appear desirable that persons manufacturing or supplying machines and mechanical plant should be legally compelled to provide their machines and plant with suitable protective devices. As there are in existence a great many safety appliances, and buyers cannot be compelled to use such safety appliances as do not commend themselves to them, the regulations should only include general prescriptions (guards for toothed-wheels, projecting parts, etc.). As regards the safety apparatus to be installed where the machine is used, the responsibility should rest on the proprietor of the factory.

In view of the difficulties which arose on various sides concerning this question at the 1928 Conference, it would be of use to enunciate a definite point of view in the Draft Recommendation.

INDIA

Note: See note at head of reply to Question 1 of Part I. I.

No. The insertion of such a provision does not appear to be feasible until progress has been made in the standardisation of machinery from the point of view of safety.
IRISH FREE STATE

The Government of Saorstat Eireann is in sympathy with the principle of a Recommendation on this subject but does not consider that its adoption, in the circumstances prevailing in the Saorstat, is feasible at present.

LATVIA

An international Convention should be adopted requiring the States Members to prohibit the manufacture or utilisation within their frontiers of power-driven machinery considered as specially dangerous when not provided with adequate means of protection.

LUXEMBURG

In the Grand Duchy of Luxemburg the Regulations of 28 August 1924 lay down the conditions to be fulfilled by moving machinery as regards the safety of the workers. In order to avoid prosecution, employers have to see that the machinery they install fulfils these conditions. The guarantee thus given to the workers would be strengthened with advantage by provisions making the furnishers or installers of machines responsible for observing the safety conditions which the machines supplied will have to fulfil.

NETHERLANDS

At the present moment it would be going too far to adopt a Draft Convention or Recommendation to the effect that persons supplying or installing machinery for use within the country should be made absolutely responsible for seeing that such machinery complies with the safety regulations. In special cases, however, such a provision may be of utility. In this respect provisions might be adopted in the form of a Recommendation.

NORWAY

The reply is in the affirmative. A Recommendation is preferred.
Poland

The duty of manufacturers of machinery to take into account the safety regulations relating to particular categories of machines is rightly recognised, but in view of the fact that regulations for the safe construction of machinery and appliances used in the various industries do not exist in every country, the adoption of such a provision might meet with difficulty if it were sought to apply it internationally.

Portugal

The Portuguese Government is in favour of a Recommendation. Machines should be provided with the necessary protective devices, and suppliers or their agents, and persons in charge of erection should not deliver or erect machines which are not supplied with suitable safeguards.

Rumania

The reply is in the affirmative.

Kingdom of the Serbs, Croats and Slovenes

A Convention establishing the responsibility of any firm or person within the country concerned supplying or installing power-driven machinery, in addition to that of the employer utilising such machinery, would greatly help in the prevention of industrial accidents, since only machines fitted with safety devices would be supplied, and their supervision would be greatly facilitated.

There are many difficulties in the way of this responsibility, however, except in the case of industrial organisations in which safety measures are more or less uniform. In other cases, there might be a conflict with the principles of standardisation of production which must develop along with the prevention of industrial accidents. Before adopting a Convention of this nature, therefore, it is necessary to compare the principal safety regulations for machines in all countries and to bring them into line for all the States Members.
SPAIN

The solution suggested in this question cannot easily be accepted, on the ground among others that the country producing machines and appliances may not be the same as that in which they are employed, and there may be a fundamental difference between the methods provided in the legislation of each. Further, it is indisputable that the responsibility for observing the regulations laid down by the law of each country should rest upon the persons who utilise the machines, thus avoiding disputes arising out of international private law.

SWEDEN

There would appear to be no reason for legislative measures of this kind except in cases where the construction and equipment of a machine, as regards safety, are entirely controlled by regulations. This condition is the exception in Sweden, by reason of the Swedish system of safety legislation and supervision which was referred to above in replying to Question 1 in Part A. I.

So far as Sweden is concerned, therefore, all that can be done is to support the adoption of a Recommendation limiting responsibility to the supply and installation of power-driven machines, which do not comply with the conditions laid down by law for such machines.

SWITZERLAND

Although it is desirable that in principle the suppliers of machinery should be required to provide such machinery with safety appliances required by laws and regulations, it is thought that in practice the question would present a number of difficulties. In the first place, it would be difficult to require a foreign supplier to observe the same regulations as a home supplier, and the latter would consequently be placed in a position of inferiority relatively to his foreign competitor.

Moreover, it is feared that a provision of this kind might complicate the principles underlying the responsibility for accident prevention. In this matter, the employer who causes a machine to be used is responsible for the danger attending its use, and is required to equip it with the protective devices called for by the safety regulations. If the employer fails to carry out his duty, he is responsible for the consequences, i.e.
he has either to purchase new machines or to make the necessary changes in the machines he has bought. He is also responsible for injuries which his workers may sustain through the fact that the machines do not comply with the safety regulations. The principle is thus clear, and there are no difficulties in the way of its application. This would no longer be the case, however, if the responsibility of the supplier conflicted with that of the employer. In many cases it would have to be decided which of the two was actually responsible — the employer or the supplier.

For the reasons stated above the Government is opposed to the adoption of a Recommendation or a Draft Convention.

URUGUAY

See reply to Question 1 of Part B.
CHAPTER II.

GENERAL SURVEY OF THE PROBLEM
IN THE LIGHT OF THE REPLIES OF THE
GOVERNMENTS.

A.

General principles of accident prevention.

The Questionnaire on the general principles of industrial accident prevention was based on the assumption that the Conference should adopt for the guidance of the States Members of the Organisation a general Recommendation indicating the more important principles which in the light of present practice and experience appear to be best calculated to protect the workers against the dangers of accident inherent in industry generally. Needless to say, this assumption is abundantly confirmed by the replies of the Governments. It is expressly or impliedly recognised throughout the replies that a Recommendation on the lines indicated, consolidating the best experience of the Organisation as a whole, would be of the greatest utility in further stimulating and developing the various forms of action which the spread and growth of modern industrialism continually require to be taken in all countries for preventing industrial casualties and avoiding the painful consequences which often follow them.
PART I.

Fundamental Principle. (Question 1.)

The first Part of the Questionnaire accordingly began with a fundamental question of principle—is there not a moral duty not only on workers and employers, but also on Governments and the public at large, to use their best endeavours and all means in their power to help to prevent industrial accidents, and should not the Recommendation start from this principle?

As was to be expected in view of the present-day development of ideas on the subject of industrial accident prevention and the volume of legislation on the matter, the existence of the moral duty referred to is, of course, not disputed in the replies. Except for a query in the Swedish reply as to whether the duty should be extended to the public, the duty is either taken as obvious (e.g. Austria, Belgium) or as the source from which all safety legislation springs (e.g. Great Britain, Netherlands, Spain). The Netherlands Government, in fact, questions whether it is not unnecessary to affirm it in the Recommendation. Two other Governments (Luxemburg, Uruguay) consider that it should be transformed into a legal duty, by embodying the principle in a Draft Convention rather than in a Recommendation, except perhaps as regards the general public (Uruguay).

If, however, the Governments are thus agreed that there is a general duty to help to prevent industrial accidents, one or two of them question whether, in view of its comprehensive character, this principle can properly be enunciated in a Recommendation framed under Part XIII of the Peace Treaty. The British Government, for example, considers the principle more suitable for a Preamble to the Recommendation. And the Polish Government, while recognising the principle, considers that, as the Recommendation would be addressed to the Governments, it can hardly lay duties on employers or workers and still less on the general public, and should therefore simply make it a duty of the Governments
to endeavour by such means as they can use to encourage employers, workers and the rest of the public to give all the assistance they can to prevent industrial accidents.

The point raised by these Governments is really a question of form. Of course, the Recommendation is addressed to Governments only, and they are under Part XIII the only authorities responsible for taking action on it. This in itself, however, would not appear to prevent the Conference from finding that there is a certain moral duty on employers and workers and even on the general public, and asking the Governments to recognise and act on this principle, which is all the Recommendation would do in any case. At the same time, as the principle in question has been found to be so self-evident that it must be assumed, a priori, to be the starting point of all measures for the prevention of industrial accidents, it is recognised that it would be more in place in the Preamble to the Recommendation. It would thus govern the various provisions of the Recommendation, which would in effect define the methods and measures by which it should be applied in practice.

*Research into the causes of accidents and means of prevention. (Question 2.*)*

The second question put to the Governments was whether the Recommendation should indicate the practical measures required for putting into operation the general principle indicated in the first question, and whether such measures should include:

1. Scientific research into the causes of industrial accidents and the best methods of preventing them, to be undertaken by official institutions with the help of the interested parties, or by technical industrial institutions;

2. The compilation and development in each country, with a view to the possible adoption of a Draft Convention at a later date, of industrial accident statistics on uniform bases which would allow of international comparison — each country keeping in touch with the International Labour Office for the purpose of arriving at such uniform bases.
On these two sub-points the Governments were also asked to make such suggestions as they considered desirable as regards the best means of arriving at the desired result, the trades which might first be dealt with, and the matters which should be taken into account in scientific research.

It may be said at once that the Governments are without exception in favour of indicating in the Recommendation practical measures for carrying out the general principle referred to in the preceding question. Most of the Governments have simply given an affirmative reply without further comment. Of the Governments whose replies contain observations, the Hungarian Government considers that practical and detailed indications should be given in addition to general principles; but the others consider it scarcely possible to indicate all the necessary practical measures in the Recommendation, since the measures required would vary with the conditions obtaining in each country, the nature of the industry, administrative and social organisation, etc., and therefore only the more general or fundamental measures should be mentioned (Austria, the Canadian Provinces of Alberta and Manitoba, Denmark, Germany, Norway, Portugal, Spain and Switzerland). A similar view is taken by the Swedish Government, which considers, however, that, as the principle of public intervention for the prevention of accidents is already of long standing and generally recognised and applied, it would be preferable that the Recommendation should draw particular attention to the more recent measures which have been taken on the subject, particularly the "safety first" movement. If it is specially desired to mention the older principles, they might be referred to by way of an introduction.

There would appear to be no difficulty in meeting the desire of the Swedish Government. There is no reason why the Recommendation should not mention both the older and the more modern measures. While it is obviously advisable that the attention of the Governments should also be drawn to modern measures, it would appear none the less desirable to refer to the older and fundamental measures of accident prevention, if only as a guide to countries where there is still room for their introduction and application.
Before leaving the general question as to whether practical measures should be indicated in the Recommendation, it should be mentioned that the British Government, without expressing an opinion on the principle, state that in their opinion the matters mentioned in the sub-clauses of the question are more suitable for a resolution only.

(a) Scientific research.

There is very general agreement among the Governments as to the necessity of systematic research into the causes of industrial accidents and the means of preventing them. One or two Governments lay special emphasis on the fact that research of this kind is the very foundation of accident prevention, and is consequently of the first importance.

This view, however, is not shared by the Swedish Government. This Government considers that as a general rule the elucidation of the direct causes of accidents is a matter of no great difficulty and would not appear to call for scientific research. This would only be of value in the case of certain trades or certain apparatus, for the purpose of finding the best means of protection.

Two other Governments (Great Britain and the Netherlands), while not denying the necessity of research, think that the inclusion of a provision on the subject in a Recommendation would not be of great utility. The British Government observes in this connection that the importance of research is already recognised by most industrial countries of any importance, and has been recognised by the Conference itself in the Resolution on accident prevention adopted in 1928 (Eleventh Session).

It has already been seen that similar observations were made by the Government of the Netherlands in regard to the first question contained in the Questionnaire. It should be pointed out in both connections, however, that the Recommendation should also serve as a guide to countries in which safety organisation is not yet so far developed as in the more important industrial countries, and should therefore enunciate principles and rules which are already widely recognised and applied in some
countries, but which might none the less be of utility to other countries.

As regards the means by which research on accident prevention might be carried out, the question put to the Governments asked whether such research should be undertaken primarily by Government institutions and public institutions of a similar standing with the help of the interested parties, or by technical institutions set up by the different branches of industry. It was thus apparently contemplated that either or both of these methods might be employed according to the particular conditions and the internal organisation of each country, the nature of the industry etc., and that no absolute rules could properly be included in the Recommendation.

A number of Governments, nevertheless, are in favour of utilising official institutions.

Denmark, for example, considers that research should be undertaken by official institutions, as this is the only way of ensuring their entire impartiality. Poland believes that on account of the importance of the work involved it should be carried on by Government institutions with the help of social and technical organisations and organisations of employers and workers. The reply of the Province of Saskatchewan is in the same sense.

All the other Governments, however, appear either tacitly to agree that it should be left to the States to choose between the two methods, or expressly prefer this course (Great Britain, Hungary, Switzerland).

As regards the results of such scientific research, several Governments make a proposal which did not appear in the Questionnaire, namely, that the results should be communicated to the International Labour Office (Poland), published by the Office (Finland and Sweden), and brought to the notice of the States Members (Finland).

The value of the distribution on these lines of the results obtained in the different countries will, it is thought, be generally appreciated, and it is accordingly proposed to indicate in the Recommendation that the International Labour Office should be kept informed of the results, so that it may publish them when necessary.
(b) The human factor.

The Governments were also asked to make suggestions as to the matters which should be taken into account in scientific research and to state whether they considered that research should be concerned not only with the material conditions in factories, etc., but also with the "human factor".

The human factor was defined in the report of the Committee on the Prevention of Industrial Accidents at the Eleventh Session of the International Labour Conference as "those factors arising from the physical or mental condition of the workers, such as fatigue, special conditions created by the hygienic conditions in which they work, etc."

Generally speaking, the Governments are agreed that it is desirable that the work of research should deal with the various factors directly or indirectly affecting accidents. Suggestions more or less detailed in character are made in this connection. The Governments generally, except the Province of Saskatchewan, which would prefer that material conditions only should be dealt with, recognise that the human factor as defined above should be considered as of special importance in connection with the prevention of accidents. One or two Governments have framed their replies in general terms. The British Government, for example, considers that all the factors which have a bearing on accident causation—physical, psychological and moral—are proper subjects of investigation. The Norwegian Government, too, considers that all circumstances affecting accidents should be considered.

Most of the Governments, however, discuss the details of the question and mention particular material or personal factors which are thought suitable subjects for scientific research.

A résumé of the various factors referred to with a list of the countries which mention them is given below. The factors are arranged according to the number of replies which have mentioned them.

Occupational Selection and Skill: Austria, Czechoslovakia, Finland, France, Germany, Great Britain, Latvia, Poland, Rumania, Sweden, Switzerland, Uruguay.
Hours of Work and their Distribution: Rest periods: Provinces of Alberta and Manitoba, Finland, France, Germany, Hungary, Poland, Serb, Croat and Slovene Kingdom, Spain, Sweden, Switzerland.

Industrial Fatigue: Austria, Denmark, Finland, Germany, Irish Free State, Latvia, Poland, Sweden, Switzerland.

Material Conditions of Work (ventilation, temperature, lighting, noise, hygienic conditions): Finland, Germany, Great Britain, Irish Free State, Latvia, Serb, Croat and Slovene Kingdom, Switzerland.

Temperament and Physical Condition of the Worker: Austria, Province of Alberta, Spain, Switzerland.

Age: Province of Alberta, Germany, Poland, Spain.

Time of the Accident (hour, day, season): France, Rumania, Serb, Croat and Slovene Kingdom.

Methods of Organising Work: Rumania, Spain, Switzerland.

Methods of Wage Payment: Denmark, Serb, Croat and Slovene Kingdom, Sweden.

Sex: Germany, Spain.

Change in Staff: The Province of Alberta, Switzerland.

Holidays: Finland, Latvia.

The following factors have only been referred to by a single country:

The worker's attitude and the nature of his movements (Sweden).

Intermittent employment (Province of Alberta).

Consumption of alcohol (Poland).

Past and present conditions of the worker's life (Serb, Croat and Slovene Kingdom).

It will be noticed that a large number of subjects have been proposed by the Governments, and it will be recognised that in many cases they are only given as examples and are not to be treated as limiting the scope of the question.

In view of the replies, therefore, it is proposed to include in the Recommendation a clause providing that scientific research should be concerned not only with
material conditions but also as far as possible with all
the non-material conditions included in the phrase "the
human factor" which affect safety in factories, etc.
and enumerating as an indication some of the factors
referred to above which seem of greatest importance.

(c) Compilation and development of statistics.

With the exception of the Canadian Provinces of
Alberta and Saskatchewan, which consider that, on
account of the great variety of conditions in the different
countries, such statistics would not have very great
practical value from the international standpoint, the
Governments are unanimous in recognising the desir­
ability and the necessity of industrial accident statistics
drawn up on uniform bases which would allow of inter­
national comparison. Several Governments emphasise
the great importance of this aspect of the present subject.
The German Government, for instance, considers
that, in the absence of comparable accident statistics,
it is impossible to draw conclusions from the results of
experience in the different countries. The Austrian
Government is of the same opinion, and adds that the
compilation and development of statistics are essential
if accident prevention is to progress. The Government
of Finland, too, considers that industrial accident statis­
tics form a highly important guide for the prevention
of accidents, and refers particularly to the compilation
of international statistics from which conclusions could
be drawn as to the danger of certain machines or certain
trades. The French Government regards industrial acci­
dent statistics as a most valuable source of information.
The British Government considers that uniformity of
statistics is very desirable, and would be in favour of
any practicable steps that can be taken to ensure it.
The Hungarian Government considers that scientific
research and the application of protective measures must
necessarily be based on accident statistics. The Swedish
Government recognises that well-planned statistics are
obviously necessary for determining and preventing
dangers of accident. The Swiss Government states that
without statistics it is impossible to deal seriously with
accident prevention.
If no doubt subsists as to the question of principle, there are nevertheless certain practical difficulties of application to which attention is specially drawn by certain Governments. The German Government points out that the ideas on which statistics are based, particularly the conception of an "accident", have not yet been internationally defined, and that this is indispensable before an attempt is made to develop statistics.

Again, in the opinion of the Hungarian Government, there can be no hope of obtaining comparative statistics so long as the States employ different definitions for the trades for which insurance is compulsory, with resulting variations in the significance of the term "accident" in different States.

Denmark considers that the Recommendation should do no more than mention certain uniform bases, on account of the difficulty of drawing up internationally comparable statistics.

The Government of the Netherlands merely recommends that statistics should not be drawn up in too great detail, and that the fact should be borne in mind that statistics are only of value if they are accurate and based on the result of expert research.

Lastly, the Spanish Government draws attention to the practical difficulty of drawing up the statistics in question, without further comment.

Several other Governments make reservations of a different kind. The Indian Government is not in favour of a Draft Convention dealing with statistics, since it is considered that in view of the great variety of conditions international comparisons of statistics may often prove to be misleading. Further, the Swiss Government considers it impossible at the moment to arrive at a decision as to the subsequent adoption of a Draft Convention, while the British Government considers that the only recommendation which can usefully be made would be that the Governments concerned should give their sympathetic consideration to the proposals agreed upon by the Conferences of Labour Statisticians which meet from time to time.

1 As explained in the note to the Indian Government's reply to the first question in the Questionnaire (c.f. Chapter 1.), the views of the Indian Government are only provisional.
The Office does not under-rate the practical difficulties in the way of the development of comparable statistics to which reference has been made by certain Governments, but it should be remembered that there is no question of finding a solution of these difficulties in the Recommendation. According to the terms of the question, the Recommendation would merely invite the Governments to take practical action with a view first of all to finding, in collaboration with the International Labour Office, uniform bases which would allow of a comparative study of accident statistics, and then to compile or develop the accident statistics in their respective countries on these common bases. The moment for finding a solution of the difficulties referred to would be when the collaboration proposed between the Governments and the Office takes place. This collaboration may, of course, be effected in a variety of ways, and certain suggestions in this connection may perhaps be made by the Governments through their delegates at the Conference. There is, however, one method of securing this collaboration which has already been referred to in a number of the replies, e.g. the British reply, viz. through the medium of the International Conference of Labour Statisticians, which is convened from time to time under the auspices of the International Labour Office and on which the Governments are represented. It is therefore proposed to suggest this method in a special resolution to be appended to the Recommendation, without of course prejudice to any other methods of collaboration which may be proposed.

With regard to the subsequent adoption of a Draft Convention, on which point a certain amount of apprehension has been expressed, it may be recalled that this point was only mentioned in the Questionnaire in order to indicate the ultimate object which might be aimed at in this statistical work—only, however, when certain conditions should have been fulfilled. These conditions are: the overcoming of practical difficulties, the adoption of certain uniform bases, and the sufficient development of accident statistics in the various countries on these bases. An affirmative reply on the principle of compiling and developing statistics can in no way imply an engagement to adopt at a later date a Draft Convention on the question.
(d) *Industries for which statistics should be compiled.*

The last point on the subject of statistics is whether they should deal with industry as a whole, or in the first place with particular branches of industry only, and if so, which.

If they are to be really complete and to lead to accurate and scientific conclusions, accident statistics should, of course, as far as possible cover all occupations and trades of whatever nature. Such an undertaking, however, would call for very considerable efforts for its accomplishment, and its completion could not be reasonably expected from the different countries in a comparatively short time. Hence the suggestion that it might be advisable to confine attention for the time being to a certain number of particular trades.

The great majority of the Governments which have expressed a definite opinion on the point are in agreement with this point of view, and consider that statistics should deal first of all with particular trades, though some Governments hold the opposite view (e.g. the Czechoslovak Government replies that statistics should deal with all forms of industry, agriculture, forestry and commercial undertakings).

The Government of India\(^1\) does not consider it advisable, owing to the fact that conditions vary from country to country, to specify in a Recommendation the particular branches of industry which should be dealt with first.

The Belgian Government replies to the question in the negative without assigning reasons.

The Estonian and Rumanian Governments do not dispute the advisability of making a preliminary selection among the various trades, but consider that the decision as to the trades to be dealt with first should be left to the International Conference of Labour Statisticians or to a special meeting of experts.

The Polish Government would also support this solution in the event of there being any doubt as to the trades to be selected.

Practically all the replies which consider that as a first step statistics should be drawn up for certain indus-

\(^1\) See footnote, ante, p. 160.
tries only are in agreement in recommending that the most dangerous trades should be taken first, in other words, those trades in which most accidents occur. Some Governments merely reply in a general way on these lines, without indicating explicitly the trades which they consider should fall under this head (Finland; Hungary—fatal accidents; Irish Free State—industries in which serious accidents are most numerous; Latvia; Spain). Other Governments mention the dangerous trades which they have more particularly in mind.

These trades and the countries which mention them are given below.

**Woodworking**: Austria, Denmark, France, Germany, Norway, Poland, Serb-Croat-Slovene Kingdom, Sweden (forestry, charcoal burning, floating of lumber, paper works, saw mills, cabinet making).

**Iron and Steel trades**: Austria, Germany, Serb-Croat-Slovene Kingdom.

**Building trades**: France, the Province of Manitoba, Serb-Croat-Slovene Kingdom.

**Chemical Industries and Explosives**: Austria, Poland.

**Mines**: Austria, Serb-Croat-Slovene Kingdom.

**Transport**: Austria (particularly railways), Serb-Croat-Slovene Kingdom.

**Textile trades**: Germany, Serb-Croat-Slovene Kingdom.

**Loading and Unloading ships**: Norway.

**Electricity; Hides and Skins**: Serb-Croat-Slovene Kingdom.

Two Governments add certain further observations. The French Government considers it desirable to compile statistics in full detail for each selected trade, mentioning, for instance, the number of accidents due to certain apparatus or certain machines (e.g. circular saws in the woodworking trade, falls from scaffolding in the building trades, etc.). Sweden considers that, while special statistics in full detail should be confined to a small number of industries, general industrial accident statistics should also be maintained.

This last suggestion would appear to indicate the most satisfactory method of dealing with the present
question. It hardly seems desirable, however, to make definite proposals on it at this stage in the Recommendation, since if the Conference of Labour Statisticians is called upon, as will be proposed in the resolution referred to above, to consider the establishment of uniform bases which would allow of the comparative study of the statistics of the different countries, it would be only logical that the Statisticians' Conference should also be asked to consider what industries should be dealt with first. This suggestion would then form a second point in the proposed resolution.

_Collaboration of the interested parties. (Question 3._)

In the third question of the Questionnaire the Governments were consulted as to the advisability of referring in the Recommendation to the great importance, from the standpoint of accident prevention, of co-operation between all the parties interested, including employers and workers, and of inviting the States Members to do all in their power to develop and encourage such co-operation.

With the exception of the British Government, which considers that this question has been covered by the Resolution adopted at the 1928 Session of the Conference, the replies of the Governments are all in the affirmative. Many of them lay special emphasis on the importance of such co-operation.

The Belgian and Serb-Croat-Slovene Governments point out that the experience gained by employers and workers in the course of their activities may be extremely useful for the purposes of accident prevention.

The Swedish Government also attaches special importance to co-operation between employers and workers on the lines of the Safety First movement.

Estonia, Hungary, the Irish Free State and Spain consider that the co-operation of the interested parties is indispensable for the success of safety measures.

The Grand Duchy of Luxemburg also considers that the point is one of capital importance.

The Canadian Province of Saskatchewan states that, as industrial accidents are an economic loss the cost of
which has eventually to be met by the community at large, it is only logical that all the parties interested should collaborate with a view to preventing them.

The Danish and Norwegian Governments attach special importance to close collaboration between public inspection services and insurance institutions or accident compensation institutions.

Finland, France and Uruguay recommend as one of the most effective methods of co-operation the institution in the larger undertakings of safety committees, including workers' representatives, to investigate practical methods of avoiding accidents.

The Uruguayan Government also emphasises the importance of the co-operation of supervisory or inspecting authorities and the services they can render in accident prevention.

In view of this unanimity of opinion there can be no question but that the Recommendation should include a general clause inviting Governments to develop and encourage by such means as they consider most appropriate the co-operation of all the parties interested in accident prevention, particularly employers and workers, official factory inspection services and insurance institutions. Further, the Recommendation might mention as an indication some of the methods of co-operation which experience has shown to be the most effective, e.g. safety committees, the methods recommended by the Resolution of the 1928 Conference (conferences of employers' and workers' representatives in particular industries, together with Government inspectors; standing district or national committees for reviewing periodically the progress made and considering what further steps can be taken for the future), and also the methods for securing the collaboration of official inspection services in the prevention of accidents referred to in the 1923 Recommendation on the organisation of inspection services (c.f. Section II. B. "Safety")

Responsibility of employers. (Question 4.)

Question 4 referred to the principle of the employer's responsibility for taking protective measures and in particular for the equipment and upkeep of workplaces.
The principle of this responsibility is recognised by all the Governments without exception, as was to be anticipated in view of the fact that, as is pointed out by several Governments (Finland, Great Britain, Sweden), the principle is almost universally recognised and enforced by national laws. Austria and Poland consider that there can be no doubt as to this obligation. The Hungarian Government considers that the employer's responsibility is the logical outcome of the principle of occupational risk which is recognised to-day by almost every country.

Two Governments would extend the employer's responsibility beyond the range indicated in the question. Thus, the German Government considers that his responsibility should cover not only apparatus and maintenance but also technical management, while the Danish Government considers that the employer should be required to instruct his workers in the dangers of their particular jobs and the measures to be taken by them to avoid accidents.

Several Governments (Belgium, Finland, Luxemburg) remark that in addition to the employer's responsibility the corresponding duty of the workers to comply strictly with the safety regulations should also be laid down. This point will be examined later in dealing with Question 5, which is concerned with the duties of the workers.

Although the employer's responsibility as indicated in the question is recognised by all the Governments which have replied to the Questionnaire, the British and Swedish Governments consider it unnecessary to refer to it in the Recommendation, precisely because it is universally recognised. The Swedish Government also observes that the principle has already been to some extent laid down in the 1923 Recommendation on inspection services.

These hardly appear, however, sufficient reasons why the principle should not be affirmed generally in the Recommendation contemplated in this Report. As has been indicated in previous connections, one of the objects of the Recommendation is to serve as a guide for countries in which social legislation has not reached an advanced stage of development, so far at least as accident prevention is concerned. For this purpose a reference to so important a principle would be desirable, especially as
there can be no objection to this course on the part of other countries where it is recognised and applied in practice. As regards the allusion to the 1923 Recommendation, moreover, the Swedish Government itself recognises that the question was only dealt with to some extent in that Recommendation, and it would therefore be useful to refer to it again in a wider and more general form in the present Recommendation, where a clause of this kind should properly be included.

This is, in fact, the view of the French Government, which differs from the two Governments just mentioned in thinking it essential that the Recommendation should affirm the present principle and that it would be ineffectual without it.

On the basis of the replies as a whole, then, it is proposed that the draft Recommendation should contain a clause dealing with the employer's responsibility for taking protective measures and in particular for the equipment and upkeep of work-places, tools and machinery. This clause, it is considered, should also refer to the valuable suggestion that the employer should see to the instruction of his workers in the dangers of their occupations and the ways of avoiding accidents during their work.

Responsibility of the workers. (Question 5.)

As a counterpart to the employer's responsibility, Question 5 asked whether the Recommendation should also draw attention to the fact that the workers by their conduct in the workplace can and should contribute to a large extent to the success of the protective measures taken for their benefit, and, that it rests with the workers' organisations to co-operate in the education of their members in order to safeguard them from industrial accidents.

On this point again the replies of the Governments are emphatically in the affirmative. The British Government, however, while recognising that the part taken by the workers in accident prevention is of the first importance, considers that a provision on the lines indicated would be out of place in a Recommendation addressed to Governments, and that it suffices to have mentioned the principle in the 1928 Resolution. The Government of
India also makes reservations as to the difficulty of applying such a principle in that country. The remaining Governments agree that a clause of the kind in question should be included in the Recommendation as the logical complement to the clauses defining the employer's responsibility, and consider that these two matters are interdependent and cannot be separated.

The Austrian and Polish Governments consider that the most effective safety measures would be of no avail if they are not strictly observed by the workers. The Government of Luxemburg considers that it is the duty of the workers to contribute very largely to the success of the measures taken in their own interest.

As regards the part to be played by workers' organisations, Denmark, Germany and Uruguay are of opinion that by reason of the influence which they have on their members they are in the best position for undertaking their education in safety measures. Spain and France consider that the education of the workers is one of the most effective means of ensuring the success of safety measures. The Hungarian Government remarks that, whatever opinion may be held as to the real or imaginary conflict of interests between employers and workers, there is no doubt that in this particular field their interests are identical, and that the workers' organisations should be imbued with this idea and should foster it among their members by means of courses of instruction, lectures, etc.

The Swedish Government also proposes, as one method of carrying out the education of the workers, that the State should supply the workers' organisations with pamphlets on safety which the latter could distribute to their members. The advantages of this suggestion would appear to warrant a reference to it in the Recommendation.

Mention should also be made of the reply of the Serb-Croat-Slovene Government, which considers that if the workers are required to observe the regulations it is only reasonable that they should be made acquainted with them, and therefore the employer should be required to see that the workers in his establishment are acquainted with the safety measures and regulations, without pre-

1 See footnote, ante. p. 160.
INSTRUCTION

judice to the duty of the workers' organisations in these matters. This suggestion has in fact been met by the clause which it has already been proposed to include in the Recommendation (c.f. ante, p. 167) as to the employers' responsibility for seeing to the instruction of his workers in the dangers of their work and the means of avoiding them.

Instruction in accident prevention. (Question 6.)

Apart from the problem of the safety education of the worker as such, to which great importance is attached by the Governments as a whole, the Questionnaire contained a number of questions on instruction in accident prevention generally.

(a) Elementary and continuation schools.

It was first asked whether the States Members should be invited to encourage, with a view to educating the people, instruction in the problems of the prevention of accidents, including first-aid hygiene, in elementary schools and continuation schools.

The replies on this point bring to light a number of different views. The majority are in favour of including a clause on these lines in the Recommendation, but qualify their replies with certain observations. The Belgian Government, for example, considers that only general principles should be taught. The Danish Government remarks that it would be particularly useful to give instruction to children in country elementary schools in the dangers of agricultural machines. The Spanish Government considers that instruction of the kind in question is specially important in continuation schools, which are more directly concerned with industrial subjects.

Another view is expressed by a certain number of Governments (France, Germany, Great Britain, Netherlands, Switzerland), which consider that pupils in elementary schools are too young to derive advantage from instruction in the prevention of industrial accidents, since most of them have not even seen a machine in operation (France). They do not therefore consider it
desirable that instruction in accident prevention should be given in elementary schools, nor even (Great Britain) in continuation schools. The German Government adds that in any case the teachers in these schools have not the necessary technical knowledge to enable them to give instruction on the subject. The Swiss Government would prefer to see instruction given in principles of caution in general, rather than in accident prevention problems which deal with matters of which the pupils are ignorant.

The Swedish Government, while sharing in principle the hesitation of the above-mentioned Governments, considers that present-day mechanical developments affecting daily life render it desirable that the commoner risks of accident should be brought to the notice of children at an early age.

There would no doubt be considerable justification for these objections to instruction in accident prevention in elementary schools, if the proposal were to deal simply with the prevention of industrial accidents. The question, however, referred to the prevention of accidents in general, which really amounts to the principles of caution which the German and Swiss Governments in particular have in mind.

All the countries in the second group referred to above, however, recognise the desirability of giving instruction in first-aid hygiene in elementary and continuation schools, though the Netherlands Government would prefer that no obligation should be laid down in the Recommendation, and the Swiss Government considers that only elementary principles should be dealt with.

There are two countries—India and the Canadian Province of Quebec—which reply to all the above points in the negative. The reply of the Indian Government is again based solely on the conditions existing in that country.

On the basis of the replies as a whole, then, it is proposed to include a clause in the draft Recommendation inviting the States Members to develop instruction in first-aid hygiene and the general principles of accident prevention in elementary and continuation schools.

1 See footnote, ante, p. 160.
(b) **Technical schools.**

The second point put to the Governments, as a complement to the first one just dealt with, was whether the Recommendation should invite the States Members to see that pupils in technical schools and polytechnics receive adequate instruction in methods of accident prevention, and draw their attention to the importance of accident prevention both from the economic and moral standpoint. Such instruction would appear particularly useful in schools in which pupils are directly prepared for industrial careers who will later on be required to deal directly and practically with safety problems as engineers, foremen, mechanics, etc.

This general proposition appears to be recognised in the replies as a whole, as the objections relating to the age of the pupils which prevented some Governments from replying affirmatively to the preceding point do not apply in the present case. With the exception of India and the Province of Quebec, therefore, it seems clear that the Governments accept the principle contained in the question. The Government of the Netherlands, however, makes the same reservation as on the first point with regard to the introduction of the principle in the Recommendation.

A certain number of comments are made in the replies. The Belgian Government would prefer that instruction should be confined to general principles even in technical schools. The Danish Government considers that instruction should be extended to agricultural schools. This is also the view of the Swedish Government, which further considers that schools of navigation and forestry should be included. The Spanish Government questions whether the programmes of these schools might not be overloaded if instruction of the kind in question were included. This is also apparently the reason why the British Government considers that it is unnecessary to give special instruction in accident prevention and that it is sufficient to draw the attention of the pupils to the matter by lectures, visits to exhibitions of safety appliances, etc. The Hungarian Government considers that special advantages

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1 See footnote, ante, p. 160.
would be derived from instruction in accident prevention, since it would lead to the removal of certain prejudices which cause people to think that accident prevention might diminish output. Lastly, the Government of Uruguay states that instruction in technical schools is the means by which the study of safety problems may be made to give the best results.

It is accordingly proposed to refer generally in the draft Recommendation to the desirability of instruction in safety problems being given in vocational schools of all grades.

(c) Instruction after leaving school.

Instruction in methods of protection in schools may not, however, be sufficient to give those who subsequently occupy posts in industry the necessary interest in the safety movement. It is to be feared that many on leaving school and entering practical life may speedily forget the ideas which have been impressed upon them, and that being in permanent contact with danger they may lose to some extent the "safety sense". To prevent this, it would be desirable that their interest should be as far as possible maintained by suitable means, such as courses of instruction, cinematograph films, visits to other undertakings, the development of safety museums, etc.

The foregoing forms the third point on which the Governments were consulted in connection with instruction in accident prevention.

Generally speaking, the utility of such an additional provision is recognised by a large majority of the Governments. Some of them, nevertheless, make certain reservations. The Danish Government considers that the methods suggested, while useful for instruction in technical schools, would be much less so when the pupils have left school. The Portuguese Government fears that lack of interest on the part of those concerned would render these measures of little value. The Swedish Government is of opinion that the object in view would be more effectively attained through the efficient application in the various industries of the principles of the Safety First movement. This view is also held by the British Government, which states that these measures should be organised by employers, works' safety com-
mittees, or other safety institutions, and are outside the functions of the State. The British Government consequently considers that the present matter is not appropriate for a Recommendation, though the establishment of safety museums might be dealt with in a resolution.

While it appreciates the value and the results of the Safety First movement to which these last two countries refer, the Office considers that State action in the present matter might nevertheless be mentioned with advantage, since it can in no way interfere with the Safety First movement in countries where this movement is progressing, and it would be of particular importance in countries where the Safety First movement has not yet been sufficiently developed. It is therefore proposed to include a clause in the Recommendation asking the Members to do all they can to encourage instruction after leaving school, on the lines above indicated.

(d) Vocational guidance and selection.

The fourth point raised by Question 6 dealt with methods of vocational guidance and selection, the encouragement of scientific research into them and their practical application.

Generally speaking, not many observations have been made by the Governments on this point, possibly because it had already been indirectly touched upon in Question 2 (c) and (d) of the Questionnaire.

With the exception of India¹ and the Canadian Provinces of Quebec and Saskatchewan, the Governments have replied in the affirmative. Spain, Hungary, Poland and Switzerland in particular have emphasised the importance of methods of vocational guidance for accident prevention, on the ground that their effect is to restrain from certain forms of work those persons who would be particularly liable to accident. The Swedish Government is alone in thinking that, on account of the comparatively restricted use which can be made of psycho-technical tests, it is unlikely that they would have great practical value.

In view of the practical unanimity of the replies, it is proposed to refer in the Recommendation to the encouragement of scientific research into methods of vocational guidance and their practical application.

¹ See footnote. ante, p. 160.
First Aid. (Question 7.)

On the proposal of the Committee on Accident Prevention of the 1928 Conference, a question was included in the Questionnaire dealing with the organisation of immediate first-aid or medical treatment in industrial plants and workplaces. Although this question does not directly concern accident prevention, the Conference considered that it was desirable to refer to it on account of the advantages of immediate first-aid in case of accident. Any diminution in the consequences of an accident may in fact be considered as part of the work of prevention.

The replies are practically unanimous in recognising the importance of this question. There is no opposition, but merely a few reservations and observations. The danger of first-aid when it is not administered by competent persons is pointed out by the Portuguese and Swiss Governments. In their opinion no encouragement should be given to the organisation of first-aid unless there is some guarantee that it will be given by qualified persons. The Polish Government considers that international regulations for medical treatment in factories would give rise to difficulty on account of differences in national legislation. The Norwegian Government remarks that arrangements for medical treatment should not interfere with the principle of the free choice of doctor. The British and Swedish Governments are of the opinion that it would be desirable, in addition to the measures contemplated, to provide for the organisation or development of ambulance services for the immediate conveyance of injured persons to hospital or to their homes.

It is thought that the above observations and the general trend of the replies would be taken into account if the Recommendation contained a clause mentioning the great importance of organising first-aid by competent persons in undertakings generally as well as medical treatment in the larger establishments. The desirability of organising ambulance services for the conveyance of injured persons, when possible, might also be mentioned.
PART II.

The principle of legal regulations for ensuring a minimum standard of safety. (Question 1.)

The first part of the Questionnaire, the replies to which have just been reviewed, dealt with certain general measures for preventing accidents which might be carried out by voluntary action on the part of those concerned without reference to legal duties or obligations. The second part which now falls to be considered dealt with the measures which might be prescribed by national laws or regulations.

The first question in this part of the Questionnaire was whether national laws or regulations should prescribe a minimum standard of safety in each country, and the Governments were asked whether the Recommendation should embody this principle.

The replies are practically unanimous in recognising the necessity of having general provisions for a minimum standard of safety included in national legislation, but it is considered by Finland, Germany and Spain that the duty of issuing detailed rules for the various trades and the particular cases which may arise should be left to the executive power or administrative authority. Some countries emphasise that legal provisions of this kind are essential for the carrying out of safety measures (Austria, France, Germany, Hungary, Kingdom of the Serbs, Croats and Slovenes, Switzerland). The Hungarian Government also points out that a legal minimum standard of safety is particularly necessary in the case of small workshops and skilled tradesmen working on their own account, cases which are not as a rule very favourable to the development of safe conditions of work.

There are, however, three Governments which would seem to be more or less opposed to including the principle of a legal minimum in the Recommendation.
The Government of the Canadian Province of Quebec, for example, has given a negative answer, though it states no reasons. The British Government, again, while recognising the necessity of legal regulations for ensuring a minimum standard of safety, doubts whether the inclusion of a principle of this sort in the Recommendation would produce any useful results. And the Swedish Government foresees certain difficulties in connection with the legal regulations proposed. It is feared that the minimum standard of safety desired might not be effectively reached, chiefly on account of continual technical progress, and also that the minimum standard of safety might frequently become, if not a maximum standard, at least a normal condition which might prevent the development of protective measures.

These fears might be to some extent justified if it were a question of provisions in great detail laying down definite and rigid safety measures for each industry. There would then be an absence of elasticity which might hinder the adaptation of these measures to the requirements of technical progress and might thus hold up any advance in safety matters. The regulations contemplated in the present connection, however, would be of a general character, and need not enter into details for each industry. In these circumstances the objections of the Swedish Government would appear to lose some of their force. In any case, these objections can be met on the lines suggested by the Swiss Government, which points out that the Federal Insurance Act in that country has adopted the following general formula: "In every undertaking... the employer or his representative shall, in order to avoid sickness and accident, take all measures which have been shown by experience to be necessary and which the progress of science and the circumstances enable to be applied". The Government adds that "the general tenor of this provision not only enables accident prevention to be developed as required, but also enables the exigencies of industry to be taken into account to the extent desirable."

It is therefore proposed to include in the Recommendation a clause recommending the States Members to adopt legal provisions to ensure a minimum standard of safety.
DUTIES OF EMPLOYERS

Duties of employers, powers of competent authorities, and rôle of accident insurance institutions. (Question 2.)

The second question in Part II of the Questionnaire dealt with the introduction into national legislation of a number of provisions affecting employers intended to expand the principle of a legal minimum of safety. As several points were covered by the question, it is proposed for the sake of convenience to divide them into three groups—(a) duties of employers, (b) powers of the competent authorities, (c) the rôle of accident insurance institutions.

(a) Duties of employers.

(i) The first point under this heading concerns the general duty of the employer to equip and manage his undertaking in such a way that the workers are adequately protected, regard being had to the nature of the undertaking and the state of technical progress.

On the principle of this obligation all the Governments are in agreement, with the exception of the Government of the Canadian Province of Quebec. The Hungarian Government states that this duty is the starting point of all legislation for the protection of the workers, while the Polish Government considers that it is one of the essential guarantees without which it would be impossible to ensure the necessary standard of safety at work in any branch of production.

There are, however, two Governments which, without questioning the principle, have reservations to make as regards its inclusion in the Recommendation.

The British Government considers that the principle is too vague to be embodied in national legislation, which should rather lay down definite and detailed provisions for its application. It is unnecessary to say that the Office shares this view, considering detailed provisions defining the duty of the employer in particular cases to be preferable. Obviously, however, there can be no question of embodying provisions of this kind in a general Recommendation, though this would not appear to be any reason why the
general principle should not be formulated in the Recommendation.

Moreover, there is no reason why Governments should not develop the principle in national legislation as far as they may desire in the form of special laws or regulations for different trades or branches of industry.

The Swedish Government takes the view that the principle is universally recognised and applied, and has already to some extent been laid down in the 1923 Recommendation on inspection services, and that on this account it is undesirable to repeat it in the present Recommendation. This observation, however, has already been discussed in another connection and need not therefore be further referred to here.

On the basis of the replies as a whole, therefore, it would appear that a clause might be proposed for inclusion in the Recommendation inviting the States Members to lay down by law a general obligation on employers in the sense of the question. Further, as was indicated in examining the replies to Question 4 in Part I of the Questionnaire, which dealt with the same subject, it would be desirable to indicate that the employer should also be required to instruct his workers in the dangers of their occupation and the means of avoiding accidents.

(ii) The second point under the present heading was whether national legislation should make provision to the effect that plans for the construction or alteration of industrial undertakings should be submitted to the official inspectorate, or other competent authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the safety regulations.

The great majority of the Governments agree that a clause to this effect should be included in the Recommendation. Several countries, e.g. Austria, Germany, Poland and Switzerland, observe that in the employer's own interests it is preferable that plans should be examined before the work is carried out, as otherwise the employer might be required to undertake possibly costly alterations after the work had been completed.

Reservations are made by some Governments, however, while one or two others have given a negative reply.

The Spanish Government, while recognising the utility of the proposal, is afraid that the responsibility of official
inspection services would be substituted for that of the employer, and considers that there would be no advantage in such a transference of responsibility, while there might also be opposition from the employer on account of the existence of manufacturing secrets.

The Danish and Finnish Governments are of opinion that the measure contemplated might meet with serious practical and administrative difficulties. The Canadian Province of Saskatchewan points out that in order to carry out the measure efficiently it would be necessary to increase the staff of inspection services very considerably. The Government of India\(^1\) would prefer that the system of approval of plans should not be compulsory, since, while it might be of advantage in some cases, there are others in which it might mean considerable delay in carrying out the work, thus hindering the industrial development of the country.

This would also appear to be the opinion of the Swedish Government, which further considers that the effect of giving preliminary approval to the plans might render it impossible for the inspectorate to intervene at a later date with a view to the execution of alterations which might be necessary, and that it would therefore be sufficient to permit the employers to submit plans to the inspection service for prompt examination free of cost.

A negative reply is given by the British Government, and by that of the Province of Quebec.

Notwithstanding the reservations and opposition of the above-mentioned Governments, it is thought that the genuine guarantee of protection which the workers derive from the measure at present under consideration is such that account should be taken of it as far as possible, and, consequently, relying on the support of the great majority of the Governments, the Office proposes that the Recommendation should draw attention to the utility and desirability of the procedure of having building plans approved by the competent authority.

(b) Powers of competent authorities.

The point under this heading raised the question of the powers of the competent authorities, e.g. the inspectorate. The Governments were asked, firstly, whether

\(^1\) See footnote, ante, p. 160.
these authorities should be entitled to give orders in the individual case to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal. Secondly, if such powers are accorded to the competent authorities, should they also be entitled to require, in cases of imminent danger, immediate compliance with the orders, notwithstanding the right of appeal? There are, as a matter of fact, a considerable number of laws in force which give such powers to the competent authorities.

No fewer than seventeen replies are definitely in favour of these two proposals—Belgium, Denmark, Estonia, Finland, Germany, India, Latvia, Luxemburg, the Netherlands, Norway, Portugal, Rumania, the Kingdom of the Serbs, Croats and Slovenes, Switzerland, and the Canadian Provinces of Alberta, Manitoba and Saskatchewan.

Other countries, e.g. Spain and France, consider that the competent authorities should do no more than take note of breaches of the regulations, without being entitled to order special steps to be taken as the circumstances require.

The Hungarian Government considers that this question should not be dealt with in the Recommendation, since it goes to the foundation of the administrative systems in the various countries, changes in which cannot reasonably be expected. It is therefore considered that the Recommendation should simply mention the necessity of rapidly taking the steps considered essential.

The most definite opposition to the suggested measure is offered by the British Government, which states that the procedure would be contrary to the British administrative and judicial system. It is further urged that a settlement of the question was reached by the 1923 Recommendation, and that there is no reason to re-open it. This is also the opinion of the Swedish Government.

As regards this latter argument, it would not appear that the mere fact that certain provisions relating to the powers of Government inspectors have already been included in a general Recommendation on the organisation of public inspection services is sufficient to prevent the Conference from adopting at a later date stricter provisions as to their powers on a special matter like the prevention of accidents. It is chiefly in this matter

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1 See footnote, ante, p. 160.
that the supervisory bodies have important duties to carry out, and it is hardly an exaggeration to say that the supervision of hygiene and safety in undertakings generally should be their most important duty. For this reason, therefore, and in view of the fact that the majority of the Governments are of this opinion, it seems both permissible and desirable to propose that the supervisory bodies should be given wider powers than those mentioned in the 1923 Recommendation, i.e. that the public inspectors or other competent authorities should be entitled in every case to issue direct instructions to be followed by the employer, subject to a right of appeal.

With regard to the authority to whom appeal should lie, the Questionnaire indicated that it might be an authority specially organised for this purpose. Most of the Governments express no opinion on this point, or merely reply that appeal should lie to higher authority. The Swiss Government replies, however, that the authority specially organised for this purpose might be composed of competent persons from the standpoint of technical knowledge, or that it should have the assistance of a committee of experts. Such a system would amount to a form of arbitration. In the absence of other indications, therefore, it is proposed that appeal should lie to a higher administrative authority or to arbitration.

In view of the replies as a whole, it is also considered desirable to propose in the Recommendation that the competent authority should be empowered, in case of imminent danger, to require immediate compliance with the orders issued, notwithstanding the right of appeal.

(c) **Rôle of insurance institutions.**

It is being more and more widely recognised that accident insurance institutions are able to contribute effectively to the furtherance of accident prevention and so complete the work of the services of inspection and supervision. It is, in fact, in the interest of such institutions to try to reduce as far as possible the number of industrial accidents, since they themselves have to meet the cost of compensation. A number of ways and means of collaboration in the safety movement are open to these institutions. One of the more important methods
is reducing the insurance premium in the case of establish­ments which are particularly well equipped as regards safety and where the number of accidents is smallest. This system has a direct effect on accident prevention, since it acts as an inducement to employers to find the most effective protective measures and so obtain a reduc­tion in premium. The Governments were accordingly asked whether it was desirable that provision should be made in the Recommandation to the effect that industrial accident insurance institutions administered by or under the direction of the State should be empowered, or required; to take into account, for the fixing of premiums, the measures taken in the various undertakings for the pro­tection of the workers.

All the Governments are in favour of the suggested measure with the exception of the Province of Quebec, which has replied in the negative, and certain others (Great Britain, India, Irish Free State) which do not possess a State-administered accident insurance system and to which countries the question does not therefore apply.

Although, however, there is almost complete agreement as to the principle, this is not the case with regard to the point as to whether the institutions in question should be required to adopt the system of varying premiums, or merely empowered to do so. As a matter of fact, the opinions expressed on this point are more or less equally divided. Those in favour of compulsion are Czechoslovakia, Finland, Latvia, Netherlands, Poland, Portugal, Serb-Croat-Slovene Kingdom, Spain, Sweden and the Province of Alberta. The Polish Government, it may be noted, considers that compulsion is essential if insurance institutions are to be prevented from abusing their powers in the matter. On the other hand, Austria, Estonia, Germany, Hungary, Luxemburg, Norway, Rumania, Switzerland and the Province of Manitoba take the contrary view. These countries consider it preferable that no compulsion should be laid upon insurance institu­tions, which should merely be empowered to take into account in fixing premiums the standard of safety in the various undertakings.

In view of this pronounced difference of opinion it would appear that it should be left to each State to adopt

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1 See footnote, ante, p. 160.
the principle best suited to its particular requirements, and it is therefore proposed to include a provision to this effect in the draft Recommendation.

Although the matter which has just been discussed is one of the most important ways in which accident insurance institutions can contribute to the prevention of accidents, it is by no means the only one, there being various other methods by which the institutions' help may be given. The Governments were accordingly asked what other methods they considered might be referred to in the Recommendation.

The replies to this point contain a number of interesting suggestions. The following methods of securing the collaboration of the insurance institutions are proposed: participation in research into the causes of accidents, e.g. representation on any special committees or institutions set up with this object (Germany, Switzerland); collaboration with the public inspection services by communicating information relating to accidents (Denmark, Great Britain, Norway, Netherlands); propaganda and advice addressed to employers (Czechoslovakia, Finland, Great Britain, Hungary, Latvia, Poland, Spain); prizes or rewards to workers, engineers or others who, by their inventions or in any other way, contribute substantially to the prevention of accidents (Czechoslovakia, Denmark, Estonia, Switzerland); the possibility of issuing and enforcing safety regulations (Estonia, Germany, Hungary, Poland, Serb-Croat-Slovene Kingdom); creation of technical safety services at the disposal of the employers (France); participation in the "Safety First" movement (Sweden).

These various suggestions would appear to be capable of adoption according to the circumstances of each country, and it is therefore proposed to refer to them in the Recommendation as indicating further methods by which accident insurance institutions may co-operate to advantage in the prevention of accidents.

*Duties of the workers and their participation in accident prevention. (Question 3.)*

In discussing the replies to Question 4 of Part. I of the Questionnaire it was remarked that the Governments
were in agreement in considering that the Recommendation should mention the principle that the workers should by their conduct in the workplace contribute to the success of the measures taken for their safety. In the last question of the Questionnaire, which referred to the same subject, the Governments were asked whether they considered that this principle should be embodied in the laws of each country, and that a legal duty to comply with the safety laws and regulations in force should be laid upon the workers. As, moreover, it appeared reasonable, if this duty were imposed, that the workers should participate in the framing of safety regulations or in supervising their observance, such participation being already effected in several countries, the Governments were also asked whether they considered it desirable to recommend the adoption of legal provisions on this point too, and in what way they considered such participation could be carried out.

On the principle of legal provisions concerning the part to be taken by the workers in accident prevention all the replies are in agreement, with the exception of those from the Province of Quebec, which replies in the negative, and Belgium and the Province of Manitoba, which consider that private initiative is more effective. The Swiss Government would also appear to share this opinion, and would prefer that the Recommendation should merely refer to the utility of such measures without proposing that they should be made compulsory in the form of legal provisions.

The Government of India\(^1\) observes that, owing to the general illiteracy of the workers in India, it would not be possible to adopt legal provisions to associate them with the work of accident prevention.

(a) Duty of the workers.

The first point, viz. the legal duty of the workers to comply with the laws and regulations on accident prevention, is approved by all the Governments which are favourable in principle to the adoption of legal provisions.

\(^1\) See footnote, ante, p. 160.
Many of the replies state that the workers should be required to make full and proper use of the safety appliances provided (Austria, France, Germany, Irish Free State, Sweden), to refrain from reckless acts (Alberta), or from any act which might endanger their own safety or that of their comrades or that of the establishments, workshops, and machines (Uruguay), and to abstain from preventing safety appliances from operating (Denmark). It is accordingly proposed to take account of these suggestions in the draft Recommendation to be submitted to the Conference.

(b) *Workers' participation in framing safety regulations.*

The same Governments are also in favour of according the workers the legal right to participate in framing safety regulations. Several of the replies refrain from entering into detail as to the form which this participation might take, and others consider that this question should be settled by the individual country. Other Governments, again (Austria, France, Germany, Latvia, Norway, Poland, Switzerland) are in favour of the method of collaboration which is most widely adopted and most easily applied, i.e. consultation with the workers' organisations before safety regulations are issued.

This practical method would appear, according to the experience of a considerable number of countries, to have yielded satisfactory results, and it is therefore proposed to indicate it in the draft Recommendation.

(c) *Participation in supervising the enforcement of the regulations.*

The last point on the rights and duties of the workers is their participation in the enforcement of the regulations. One or two Governments make reservations on this point. Hungary, the Netherlands and Switzerland consider that it is desirable that the enforcement of the regulations should be entrusted to impartial and disinterested bodies. This objection would be well founded if it were a question of allowing the workers alone to supervise the enforcement of the regulations. Such is not, however, the object of the present question. The question simply is whether they should
be enabled to participate to a greater or less extent according to the different systems of administration in the work of supervision. The British Government considers that the participation of the workers should preferably be obtained by voluntary action, which is one of the principles of the Safety First movement.

The other Governments, however, are in favour of the adoption of legal provisions on the matter. Various proposals are made. The method most generally applied consists in the appointment of safety committees, works' councils or workers' delegations or representatives, appointed to supervise the enforcement of the safety regulations, to advise on safety measures and to collaborate in certain cases with the official inspectorate, etc. (Austria, Finland, France, Germany, Luxemburg, Serb-Croat-Slovene Kingdom, Spain, Sweden, Uruguay). It is also proposed that some posts in the inspection service should be filled from the ranks of the workers (Germany, Norway, Poland, Spain, Uruguay).

In view of these replies, it would appear that the Recommendation should contain a clause providing that the workers should be legally associated in the supervision of the enforcement of the safety regulations. Without laying down any particular form for their participation, it might be none the less advisable to mention some of the methods already to be found in various legislations, the results of which have been satisfactory. In addition to the particular methods referred to above, therefore, it is proposed to mention the right of the workers to call for the intervention of the official inspectorate when they consider it advisable, and the possibility for each worker or for the workers' representatives to see inspecting officials when the latter visit a factory, without prejudice to such other methods as may appear suited to the special conditions of each country.
B.

I. Indication of the weight on heavy packages transported by vessels (Question 1).

The first question put to the Governments under this Section of the Questionnaire was whether they were in favour of a Draft Convention or a Recommendation making it compulsory on the sender to mark their weight on heavy packages transported by vessels, and, if so, what limit should be fixed above which the weight should be marked.

The form in which the question was thus framed would appear to have caused some ambiguity in the minds of a number of the Governments which have replied to it.

The object which the question had primarily in view was the protection of the dock worker against the dangers to which he is exposed if, through their not being marked with some indication of their weight, heavy packages and objects of, say, more than 1000 kilos are during the loading or unloading of a ship lifted by machines (cranes, etc.) which are built for smaller loads and may therefore break down under the abnormal strain put upon them, with disastrous effects to workers within range of the "accident". The expression "heavy packages" thus referred to packages or objects of some such weight as is indicated above which it is impossible to move by hand but which must be loaded or unloaded by mechanical means. It is as a rule extremely difficult to estimate the weight of heavy articles of this description, and practically impossible to do so if the articles are packed. Hence the idea of an international agreement by which such heavy objects and packages would have to be plainly marked with their weight in the country despatching them, for the benefit of the workers in the various ports of the world, whether maritime or inland, who have to take part in the work of loading or unloading them.
The question as put in the Questionnaire has been clearly understood in this sense by the majority of the Governments. A number of Governments, however, have either expressly or implicitly taken the question to refer to the marking of any packages which would ordinarily be too heavy for a worker to lift and carry himself, e.g. packages weighing more than 75 kilos. This is a much wider problem which should be dealt with not only with reference to water transport, to which the question in the Questionnaire was explicitly limited, but also with reference to railway, road and air transport. For this reason, and because the majority of the Governments have not had this wider problem in mind in framing their replies, it is felt that any proposals to be submitted to the Conference on the present question should, at this stage at any rate, be kept within the limits originally contemplated in the Questionnaire and indicated above. At the same time, it is proposed to assume for present purposes that the Governments which are in favour of dealing with the wider problem would not be opposed to considering the other but more limited question.

Subject to the preceding observations, the value from the standpoint of accident prevention of requiring heavy packages transported by vessels to be plainly marked with their weight is almost unanimously recognised and emphasised throughout the replies. In fact, only one definitely negative reply has been given to the question in the Questionnaire (by the Canadian Province of Quebec, which, however, states no reasons for its attitude), and only two replies (Austria, Sweden) contain any queries as to the utility of any measure on these lines. The Austrian Government considers it improbable that the marking of heavy packages with their weight would help to prevent accidents, seeing that the dangers to which the workers are exposed depend on other factors such as the nature of the loading or unloading apparatus which is used, the size of the package, the distance it has to be moved, and the level to which it has to be lifted or lowered. Similarly, the Swedish Government, while recognising that the measure in question would be useful in some cases and being prepared to accept a Recommendation on it, considers that its effect would be very limited, as it would not touch either goods in bulk, which it is said form the largest part
of the cargoes carried, or the smaller packages, which, if too many of them are loaded in one sling, may give rise to just the same dangers as an unmarked heavy package. Moreover, the Swedish Government observes, there would be certain difficulties in framing and enforcing any legislation to give effect to the measure, which would also cause extra work and trouble to forwarding agents and others, and is unnecessary in certain cases where the weight of the object or package would be known without its being marked.

It is recognised that the measure contemplated would be limited in its scope, and that in some countries the occasions for loading or unloading very heavy packages or objects would be comparatively rare. It is appreciated, too, that the safe loading or unloading of heavy packages by mechanical means depends on other factors besides a knowledge of their weight, though a similar argument may be used in regard to almost any safety measure, and that there may be certain objects of which the workers in some though not in other countries might reasonably be supposed to know the weight without having it marked on them. But these considerations in no way detract from the fact that, as all the other Governments appear to recognise, there are certain definite dangers to the dock worker which arise solely from the absence of any indication of their weight on heavy packages and objects and which the mere marking of the weight would make it possible to avoid, and that these dangers are of sufficient magnitude to make it desirable for the Conference either to prescribe or recommend this measure for international application. Nor would there appear to be any great difficulties in framing or enforcing the legislation necessary to give effect to the measure, at any rate as regards packages and objects which are despatched from within the particular country concerned or are transported by water from one place to another in that country. (The question of enforcing the measure against packages imported from abroad will be dealt with below). Finally, as for the argument that the imposition of the measure would cause extra work and trouble to forwarding agents and others, in the first place, it is hardly to be expected that any such appreciable consequences would follow, as packages and objects destined for transport by water have generally
to be weighed in any case, e.g., for the purposes of the shipping agent, so that the only extra work involved would be the actual stencilling or other marking of the package, and, in the second place, any such extra work and trouble can hardly be said to be disproportionate to the loss of life and limb which the measure is calculated to prevent.

Except, then, for the Province of Quebec and Austria, all the Governments are in favour of an international solution being found for the present problem. As far as the Canadian Provinces are concerned, it would appear that the present subject falls within the competence of the Federal Legislature, and their replies cannot accordingly go beyond a Recommendation. As for the other Governments, the following either expressly propose or would appear by implication to prefer a Draft Convention:—Czechoslovakia, Germany, Hungary, Latvia, Luxemburg, Netherlands, Norway, Poland, Portugal, Rumania, Serb-Croat-Slovene Kingdom and Spain. The Indian Government, too, while preferring a Recommendation, would be prepared for a Draft Convention, if other countries prefer this solution, and the Belgian Government would also agree to a Draft Convention provided it were generally accepted. Though the remaining Governments (Denmark, Estonia, Finland, France, Great Britain, Irish Free State, Sweden, Switzerland, Uruguay) have expressly referred to a Recommendation, it seems clear that in many of these cases a Recommendation is preferred not because of any objection to a Draft Convention merely as such, but because it is felt that the proper success of the measure in any particular maritime country cannot be ensured by the action which that one country alone takes to enforce it but depends on similar action being taken in the various other countries with which it has commercial relations by sea or inland waterway. This particular aspect of the present problem is, in fact, expressly alluded to in a considerable number of the replies (e.g. Belgium, Denmark, Great Britain, Irish Free State, Netherlands, Portugal), and calls for further examination.

The considerations which the Governments have in mind in this connection would appear to be the following. The only obligation which the Draft Convention could

1 See footnote, ante, p. 160.
impose would be to require any country which ratified it to see that any heavy package above a certain weight consigned from that country and intended for transport by sea or inland waterway to another place in the country or to a foreign port was plainly marked with its weight. The fulfilment of an obligation of this kind whether by a maritime or inland country would probably not present any great difficulty. The difficulties would arise in the case of countries having extensive commercial relations by sea or inland waterway with other countries and in regard to packages above the prescribed weight which are imported from these latter countries. These difficulties may be approached from two standpoints. In the first place, any country which carried out the above obligation would be protecting not only its national dock workers during the loading of the heavy packages for transport to a foreign port, but also the foreign dock workers who would have to unload it abroad in the country of its destination. Hence the country in question might desire reciprocal protection for its own dock workers when called upon to unload heavy packages imported from the other country. Secondly, if the one country applied the measure and at any rate the more important of the other countries trading with it did not adopt the same course, the situation would be that some heavy packages above the prescribed weight handled at its ports would be marked while others would not, its dock workers might assume in some cases that an unmarked package was below the prescribed weight, and so the dangers which the Draft Convention was intended to exclude would still remain to a greater or lesser extent and might even conceivably be increased rather than reduced. These latter consequences should not, however, be exaggerated, as it is practically impossible to determine how far, if indeed at all, they would really follow in practice. Nevertheless, it is clear that the practical effect of the Draft Convention for the purposes of protecting the workers concerned in a particular maritime country would depend to a very large extent on the Convention being ratified by the other countries with which it trades.

Is it then necessary to provide for any special measures to give a ratifying country the guarantees it might wish to have?

No doubt, a country which ratified the Draft Conven-
tion could take measures to protect itself without any special provision being made in the Draft Convention. It might, for example, prohibit the importation of unmarked heavy packages above the prescribed weight, though it is hardly conceivable that a Government would seriously entertain so drastic a measure. It might, again, require imported heavy packages above the prescribed weight which were not marked to be weighed when unloaded and charge the costs to the consignee (or to the ship) — a measure which is in fact already in force in South Africa. The whole object of an international regulation of the present problem, however, is precisely to obviate the necessity for any such measures as these, which would in any case be much less effectual safeguards than a general ratification of the Convention.

Apart from such measures the only means of giving a ratifying country the desired guarantees, as one or two Governments appear to contemplate, would be either to make the coming into operation of the Draft Convention subject to its being ratified by a sufficient number of countries, the precise number or a list of countries being given in the Convention itself, or to allow the particular country to make the coming into force of its ratification conditional on ratification by other countries with which it has commercial relations. It seems practically impossible, however, to give effect to either of these suggestions. If it were desired to fix in the Draft Convention itself either the number or a list of the countries which would have to ratify it before it came into operation, it is difficult to see, in view of the cross-currents of commercial relations between the various countries, how this number or list could be kept within anything like limited proportions, while, on the other hand, at any given moment there might be sufficient ratifications to make the Draft Convention effective for particular countries. If, again, each country which ratifies the Convention is to be free to draw up a list of other countries which must also ratify before its own ratification takes effect, this method is not only contrary to the whole spirit of Part XIII of the Treaty, but it might, owing to the dovetailing of the various lists which might be drawn up, prevent the Convention from ever coming into force, in spite of the fact that perhaps most of the Members had ratified it.
As a matter of fact, any such measures as these would appear to be superfluous for the purposes of the present problem. To begin with, the problem as such is a purely humanitarian one and is not complicated by any appreciable considerations of international trade competition, which might perhaps be a more plausible ground for conditional ratification. This becomes evident when it is recalled that there can be no question of requiring a country which ratifies the Draft Convention to do more than have packages marked when they are consigned from that country. Besides, if it is alleged that the handling in the national ports of heavy packages of the same weight, some of which are marked and others not, might even increase the dangers to which the workers are exposed, then this effect will also be produced in the countries to which the marked packages are exported and would be an inducement to those countries to ratify and apply the Convention themselves. If, on the other hand, no such confusion is produced at the national ports, then the ratifying country has at least helped to increase the safety of its own workers, whether other countries ratify the Convention or not. Moreover, it has to be remembered that the obligation which the Draft Convention would impose would not be an onerous one on the Governments who would have to take the necessary measures to carry it out, or on the senders of the heavy packages who would have to comply with these measures.

But the dominant fact in the whole situation is that the present problem is for the very reasons which have been discussed in the preceding paragraphs essentially one for a Draft Convention and not for a Recommendation, and that so many countries have replied in favour of a Draft Convention without asking for guarantees and in spite of the fact that the desirability of an all-round ratification and application of it has been so widely recognised. It may also be anticipated that at the Conference a considerable number of other countries will be prepared to vote for a Draft Convention, once it is known that so many Governments are already in favour of this solution. This would seem to offer a sufficient guarantee of that ratification and application of the Draft Convention on a large scale which a number of Governments consider so essential and which would be the best means of avoiding the difficulties to which attention has been drawn.
In these circumstances it is considered that a Draft Convention on the lines of the question put to the Governments should be proposed for the consideration of the Conference.

It remains to consider what weight limit should be fixed above which the weight should be marked on heavy packages or objects, whether different limits should be fixed for packages or objects destined for shipment at inland ports and for those for shipment at maritime ports, and whether any definition of "sender" should be proposed.

As regards the question of the weight limit, the situation of the replies is as follows:—2 tons or 2,000 kilos, Irish Free State; 1,500 kilos, Czechoslovakia, Germany; one ton or 1,000 kilos, Belgium, Denmark, Finland, France, Great Britain, India, Latvia, Norway, Sweden; 500 kilos, Netherlands; 150 kilos, Estonia; 100 kilos, Portugal. Various smaller limits, e.g. 75 kilos or 50 kilos, have been proposed by one or two other countries as a result of the misunderstanding of the object of the Questionnaire to which reference has already been made. On the assumption that countries mentioning the lower limits would not oppose a higher limit, it would appear, on the basis of the replies as a whole, that the limit to be proposed to the Conference as a basis for discussion should be 1,000 kilos or one ton, as there are only three replies which refer to a higher figure. It is accordingly proposed to include this figure in the Draft Convention.

Should the above figure apply both to packages and objects destined to be handled at maritime ports and those handled at inland ports? The Czechoslovak and German Governments propose that a special and lower limit should also be fixed for packages handled at inland ports (500 kilos), on the assumption, of course, that the lifting machines used at such ports are usually of a smaller capacity than those used at maritime ports. It is appreciated that the need for differentiation on these lines is felt in a certain number of countries, and that these countries are so situated that they would be able to enforce such a special limit. To make such a distinction in the Draft Convention might perhaps, however, prevent certain other countries from ratifying it, in view of the difficulties they might encounter in enforcing it in their own special
MARKING OF WEIGHT

conditions. As, therefore, the question raised by the above two Governments has not been referred to in any of the other replies, it is proposed at the present stage simply to lay down the limit of 1,000 kilos for all packages, whether destined for transport by sea or by inland waterway.

It may also be mentioned in the present connection that the German Government considers that uniform units of weight and uniform methods of indicating the same are desirable. The Office does not under-estimate the value of this suggestion, but it is thought that sufficient uniformity would be obtained in practice if the limit of 1,000 kilos, which corresponds to one ton, were agreed upon, for these systems are well-known and widely applied.

The German Government also draws attention to the desirability of marking lifting machines with the safe working load. This point is, indeed, closely bound up with the problem at present under consideration, and proposals for international regulations on it have been made in the Blue Report on the second item on the Agenda of the present Session of the Conference, Protection against accidents of workers engaged in loading or unloading ships.

The last question for consideration is whether a uniform definition of the persons to be responsible for having packages above the prescribed limit marked should be laid down in the Draft Convention. Provided the Draft Convention makes it clear that the packages are to have been marked in the country from which they are despatched before they have to be loaded on a ship or vessel, it would appear that it might well be left to national law to determine the person on whom responsibility for compliance with this requirement should rest. It is conceivable that different methods of determining this responsibility might be adopted which would be equally effective. In any case it would seem impossible, even if necessary, to lay down any uniform rules. A number of different cases may be contemplated — e.g. (1) the case of heavy packages or objects which originate in the country, and are despatched direct from the factory for example, (2) the case of a merchant who imports such packages or objects and later exports them, and (3) the case of a forwarding agent who simply imports the packages or objects in order to send them on elsewhere. These cases might all be dealt
with by making the person actually consigning the goods responsible for having them marked. On the other hand, it may be found simpler for the purposes of enforcement to make the carrying or forwarding agent responsible. It is therefore proposed to include a clause in the Draft Convention expressly leaving it to national law to determine on whom the responsibility is to lie.

To sum up, then, the Draft Convention which it is proposed to submit for the consideration of the Conference will simply consist of two clauses, the one to the effect that any package or object of 1,000 kilograms (1 metric ton) or more gross weight consigned within the territory of any Member ratifying the Convention for transport by sea, river or inland waterway shall have its gross weight plainly, legibly and durably marked upon it on the outside before it has to be loaded on to a ship or vessel, and the other to the effect that it is left to national law to determine whether the responsibility for having the weight marked as aforesaid shall rest on the consignor or some other person or body.

II. Responsibility for the protection of power-driven machinery (Question 2).

The question here was whether a Draft Convention or Recommendation should be adopted making the supplier or installer of power-driven machinery intended to be used in the country in which the supplier or installer is established responsible for seeing that such machinery complies with the national regulations governing the protection of machinery of that type, without prejudice to the responsibility of the employer who uses the machinery for seeing that it is properly protected.

Certain explanations seem necessary in order to make the scope and object of this question clear.

In the first place, it is to be noted that the whole effect of the principle of the question would be confined within the particular country adopting it, and would not overflow beyond its frontiers. On the one hand, the power-driven machinery must be supplied or installed
by some person or firm inside the country. Unless and until, therefore, the machinery is in the hands of a supplier or dealer inside the country the principle in question does not begin to operate. In the case of machines manufactured in the country the situation is clear. In the case of an imported machine there is no question of requiring it to comply with the national regulations before it is landed. The requirement only begins to take effect when some person or firm inside the country supplies it to an employer or installs it in his factory: the foreign manufacturer or supplier, being outside the country, is not affected in any way. On the other hand, there is no question of making the supplier or installer in the country responsible for protecting machines which are intended for export and not for use in the country.

Secondly, there is no question of endeavouring to secure uniform international safety standards for the protection of power-driven machines. The supplier or installer in the particular country is only to be subject to compliance with the national safety regulations, whatever the regulations may be and however much they may differ from the regulations in any other country.

Thirdly, there is no suggestion of relieving the employer of his responsibility: the idea is simply to provide an additional means of ensuring that the national safety regulations are complied with. As things are in most countries, if a certain type of power-driven machine is required by the national regulations to have certain parts protected by certain safeguards, the responsibility for compliance with these requirements ordinarily falls on the employer using the machine. His factory is subject to visits from the factory inspector, and if it is found that the machine is being used without being properly protected he will be the person liable to the sanctions imposed for the enforcement of the regulations. The supplier or installer, however, may reasonably be presumed to be better acquainted with the requirements of the law than certain classes of employers, particularly the small employer. In any case the manufacturer is in the best position to fit the machine with the prescribed safeguards. Hence the proposal contemplated in the question that, in addition to the responsibility which would remain on the employer in any case, the supplier
or installer in the country should be responsible for seeing that when he delivered the machine to the employer or installed it in his factory it was already protected in accordance with the requirements of the law. If the machine were delivered and put into use in an unprotected state both the supplier and the employer would be responsible, the one for supplying the unprotected machine and the other for using it in that condition. The additional responsibility placed on the supplier and installer might thus be an extra guarantee that the requirements of the law were complied with, and so ensure the better protection of the workers.

The present problem is thus purely a matter of national concern: it does not involve any international complications or repercussions, or affect international trade competition.

The above explanations have been given because it would appear that there has been a misunderstanding in some of the replies as to the implications of the question in the Questionnaire.

It is not clear, for example, what are the complicated international problems which one Government, while in favour of the principle contained in the question, considers make it desirable not to go beyond a Recommendation.

Again, it is difficult to see how the measure would be of no practical use, as another Government suggests. In any case, it is noteworthy that the reply of Denmark, in which country the measure has been in operation for some years, is to the effect that it has been of the highest importance for the prevention of accidents, and that the great majority of the other Governments expressly or implicitly recognise its value for this purpose.

Nor is it necessary, as one or two Governments appear to consider, that the safety regulations should be substantially the same in the different countries. It has been seen that the measure contemplated in the question does not affect machines intended for export, or machines imported from abroad until they are actually in the hands of a dealer or installer in the country in which they are to be used. There is nothing in the question to require a foreign manufacturer exporting a machine either to comply with the regulations of his own country
or with those in the country to which the machine is exported. There is thus no idea of bringing national safety regulations in different countries up to the same standard. No doubt, as the German Government suggests, an endeavour should be made at a later stage to establish some international minimum standards for the protection of machinery, but for the moment this problem is outside the range of the discussions of the Conference on the present question.

Further, it would hardly appear that, as another Government thinks, the effect of the measure would be to put the foreign supplier in a more favourable position than the home supplier, because of the fact that the former would not be subject to the same responsibility as the latter. No doubt, if the employer imported the machine direct, i.e. without passing through a home agent, the machine would arrive at the factory unprotected, and because the foreign supplier was not required to protect it the price of the machine might be lower than if the employer had bought the same machine from a home supplier who would have to charge extra for the safeguards he was required by the national regulations to put on it. But the employer would still be responsible for seeing that the foreign machine was properly protected before he put it into use. On the assumption, therefore, that in their unprotected state the prices of the foreign machine and the home machine would be the same and that it would cost less to have the machine fitted with the prescribed safeguards if this work were carried out by the manufacturer rather than by a third person, the employer would rather lose by importing the machine and at least the home supplier would not be placed in a disadvantageous position as compared with his foreign rival. A similar result would follow if the foreign machine first passed through the hands of a home supplier or installer before being delivered to the employer or mounted in his factory.

Lastly, there is no reason why, as one Government appears to consider, the adoption of the proposal should in any way diminish the employer's responsibility, or why, as another Government fears, it should give rise to cases in which it would be difficult to determine whether the supplier or employer were really responsible. If the
employer used an unprotected machine he would be just as responsible as before: he would be the person who would be required to make the necessary alterations in order to comply with the law, and if accidents were caused through the machine being unprotected he would have to bear the consequences in any case. There would be no possibility of his escaping this responsibility by alleging that the machine had been delivered to him in the unprotected condition by the home supplier; as far as the employer's responsibility was concerned, this would be quite immaterial. Of course, if the machine had been so delivered the supplier would be liable to a fine or such other sanction as the law imposed, but this would be quite apart from and in addition to the sanctions imposed on the employer. The two responsibilities would be separate and distinct and could not be confused, but the additional responsibility on the supplier or installer would be an extra guarantee that the employer's responsibility would in fact be discharged.

So much for the objections contained in a few of the replies against the principle of the question contained in the Questionnaire. There are, however, certain further observations in the replies as to the possibilities of the practical application of the principle which should be noted.

Thus, the British Government, while in favour of the principle, considers that it would be going too far to make the manufacturer or supplier of a machine responsible for seeing that it complied with all the safety requirements affecting a machine of that type. It is pointed out, for example, that there are in many cases different methods for safeguarding a particular class of machine, and an employer may quite reasonably prefer a method different from that adopted by the maker of the machine. The British Government accordingly states that it has not been felt practicable in that country to go further than a clause inserted in the Factory Bill of 1926, which simply makes any person who sells or lets on hire a mechanically-driven machine responsible for seeing that certain definite parts of the machine are properly protected (set-screws, bolts or keys on revolving shafts, spindles, wheels or pinions, and all spur and other toothed or friction gearing). Similarly, the Hungarian
Government considers that, as there are in existence a
great many safety appliances and the purchaser of a
machine can hardly be compelled to use the appliance
selected by the manufacturer rather than another and
equally effective one preferred by himself, the supplier
should only be made responsible for compliance with
certain general requirements (guards for toothed wheels,
projecting parts, etc.). Observations on the same lines,
moreover, are made in the Indian\textsuperscript{1} and Netherlands replies;
the Indian Government considers it impossible to adopt
the measure contemplated in the question until progress
has been made in the standardisation of machinery from
the point of view of safety, and the Netherlands Govern­
ment considers that, while it would be impossible to make
the supplier or installer absolutely responsible in all cases,
such a responsibility might usefully be imposed in certain
special cases.

It is clear that these observations point to a real
practical difficulty in applying the principle at present
under consideration in its full scope. National regulations
for the protection of power-driven machines are to a
very large extent framed in more or less general terms.
They thus in many cases leave employers a choice be­
tween different and equally effective methods of com­
plying with them, and different employers may prefer
different methods for the same machine. If suppliers
were made responsible for seeing that the safety require­
ments were complied with before they sold a machine,
they would have a similar choice of methods. The indi­
vidual supplier’s choice might well differ from that of the
individual employer, though \textit{ex hypothesi} it might be
inmaterial to the safety of the workers whichever of the
methods chosen were adopted. It would therefore be
unreasonable to require the employer to adopt the method
chosen by the supplier. This difficulty, of course, need
not be absolutely insuperable, as if the supplier were
made generally responsible it would always be open to
the employer when ordering a machine to specify what
type of safeguards he wished to have put on it. All the
same, it seems clear that a general responsibility of the
kind in question might not only have certain economic

\textsuperscript{1} See footnote, ante, p. 160.
effects in favour of the manufacturer, but would in any case raise considerable difficulties of application in existing circumstances in the great majority of countries.

The situation is quite different if the regulations require particularly dangerous types of power-driven machinery to be protected in a specified way which does not admit of different methods, or if as in the British Bill they specify particular parts of power-driven machinery as a whole which are to be protected and for which the methods of protection are to all intents and purposes standardised. In such cases, there is no room for a conflict of choice between the employer and the supplier as to the methods to be adopted, and there are therefore no difficulties of the kind already referred to in making the supplier responsible for seeing that a machine is protected as prescribed by the law before he sells it, since in any case the employer would have to protect it in almost identically the same way before he put it into use.

Whether the measure referred to in the Questionnaire can be adopted in a particular country or not thus depends on whether there exist any safety regulations governing the protection of power-driven machinery and the extent to which it can reasonably be expected to be applied is, it would appear, primarily dependent on the nature of the regulations in force. As a matter of fact, the measure in question has so far only been adopted in one or two countries, and in almost all these cases provision has been made for applying the principle in stages and not from the beginning in its widest scope.

If, however, there may be certain difficulties in applying the principle in its full scope, the value of it as such for ensuring the better protection of the workers has, it may be repeated, been recognised and affirmed by the great majority of the Governments. Though a number of negative or non-committal replies have been returned to the question, moreover, most of the Governments are expressly or implicitly in favour of the Conference adopting a Draft Convention or Recommendation on it. But, as only five Governments are definitely in favour of a Draft Convention (Czechoslovakia, Estonia, Finland, Germany and Latvia) — though it may be implied that Luxemburg and Rumania would also prefer this form of decision — it is clear that the decision of the Conference can hardly at the present
stage go further than a Recommendation. It is equally clear that the Recommendation can hardly be given the general scope contemplated in the question in the Questionnaire, i.e. recommend that the supplier or installer should be responsible for seeing that the power-driven machinery supplied or installed by him complies with all the safety regulations prescribed in the country concerned in respect of the particular type of machine in question. On the other hand, the Recommendation might well recommend that the principle involved, which is so widely approved, should be taken into account in national laws and regulations as being capable of furnishing an extra guarantee of the safety of the workers: the individual country would then be free to consider how far, in view of the nature of its existing regulations, the additional responsibility contemplated could be laid on the supplier or installer. In view, moreover, of the fact that the principle has only so far been applied in a very small number of countries, and of the value of following up its developments and results throughout the Organisation as a whole, it would appear desirable to ask the Members to keep the Office informed of the measures taken to apply it and of the effect of its application.

It is accordingly proposed in the draft Recommendation to be submitted to the Conference to invite the States Members (1) to apply to as great an extent as possible the principle that it shall be illegal for any person within their respective territories to supply or install any power-driven machine intended to be used in their territories which does not comply with the safety requirements prescribed by the national laws or regulations, and (2) to keep the Office informed of the measures taken to apply this principle and of the results of its application. To leave no room for ambiguity it will be made clear in the introductory clauses to the draft that the measure it recommends is simply intended to furnish an extra guarantee that the national safety regulations are complied with, and not to prejudice in any way the responsibility which should in any case rest on the employer for seeing that any machinery used in his undertaking is protected in accordance with the regulations.
CHAPTER III.

CONCLUSIONS AND TEXTS OF TWO DRAFT RECOMMENDATIONS AND A PROPOSED DRAFT CONVENTION.

It has been seen in the preceding chapter that it has been found desirable, on the basis of the replies of the Governments to the Questionnaire, to submit for the consideration of the Conference three sets of proposals on the present item on the Agenda, viz. (1) a draft Recommendation concerning the general principles of industrial accident prevention, (2) a proposed Draft Convention concerning the marking of the weight on heavy packages transported by vessels, and (3) a draft Recommendation concerning responsibility for the protection of power-driven machinery. It has also been proposed to submit to the Conference a draft resolution intended to supplement the first of the above-mentioned Recommendations on a special point with which it deals.

The reasons which have led to the framing of these various drafts and to the inclusion in them of the different provisions they contain have been explained at some length in the preceding chapter. In order to avoid unnecessary repetition, therefore, it is simply proposed to add here some general observations on the contents of the drafts, and to give references to the pages in the preceding chapter at which the various matters concerned are more fully discussed.
Draft Recommendation concerning the prevention of industrial accidents (c.f. ante, pp. 151-186). The Governments have unanimously recognised the value which a general Recommendation on the above lines would have for stimulating and furthering the various forms of action which should be taken to reduce the toll of casualties which modern industrialism takes each year of the working classes in the different countries belonging to the Organisation. Such a Recommendation which put on record the more important rules and principles to be derived from the combined experience of the Members of the Organisation would be particularly useful to countries in the earlier stages of industrial development and to countries which have not yet had an opportunity to organise their efforts for the prevention of industrial accidents on complete and up-to-date lines.

The various principles and rules referred to in the Questionnaire have in each case received the support of the great majority of the Governments. If here and there certain differences of opinion have been expressed on particular points, these have seldom been objections to the principles as such but rather differences as to particular methods of applying the same principles due to the varying conditions obtaining in the different countries concerned. Though the basic principles have thus generally been left untouched, it has been necessary to take account of these differences in certain cases by indicating alternative methods of application in the Recommendation or simply mentioning methods of application by way of example and not in any limitative or exhaustive sense. In other cases, though, as has been seen, one or two Governments have on occasion expressed the opinion that the formulation of a particular principle in the Recommendation would be superfluous, in view of the fact that it has long been recognised and applied in the older industrial countries, it has nevertheless been considered necessary to mention it in the Recommendation, which, being addressed to the Organisation as a whole, must, as already indicated, have regard to the varying stages reached in the different countries in the development of measures for ensuring safe working conditions in industry generally. If, for example, the value of "Safety First" principles has been specially emphasised by some
Governments, it has not been considered desirable because of the admitted importance of these principles to make no mention in the Recommendation of the older principles of State intervention and legal regulation, which are the primary and indispensable basis for all action for the prevention of industrial accidents and which, though their possibilities have been largely explored in the more advanced industrial countries, are still capable of further application in a number of other countries. It will be remembered, moreover, that the “Safety First” movement was the subject of a special resolution adopted by the last Session of the Conference, which reserved the other aspects of the general problem of safety in industry for more formal treatment in the Recommendation dealt with in this Report.

The operative part of the draft Recommendation accordingly contains 20 clauses, each of which formulates a separate and distinct principle. These clauses are divided into three groups.

The first group (c.f. ante, pp. 153-164) deals with scientific research into the causes of industrial accidents and the means of prevention (necessity of organising such research, especially through the medium of certain specially placed or representative institutions; distribution of the results in the different countries through the International Labour Office; development of national statistics as far as possible on uniform bases so that they can be internationally compared; importance of dealing with the “human factor” as well as material conditions).

Among the provisions in this group is a clause to the effect that in developing their industrial accident statistics the Members should keep in touch with the International Labour Office with a view to arriving at uniform bases which would as far as possible allow of a comparative study of the statistics of the different countries. It has been seen that the International Conference of Labour Statisticians, which has already begun to deal internationally with the problem of industrial accident statistics, appeared the best medium of liaison between the Members and the Office for the special purposes in view. Similarly, it seemed desirable to leave it to this body to determine the particular industries of those in which accidents are most frequent or serious for which statistics should be
compiled in the first place. The above-mentioned clause of the Recommendation has accordingly been completed by a draft resolution in which the Statisticians' Conference is asked to consider the question of uniform bases for industrial accident statistics and the industries which might first be dealt with.

The second group of provisions (c.f. ante pp. 164-174) deals with (1) various methods of securing the requisite cooperation between the different parties interested in accident prevention and particularly employers and workers, (2) the necessity of instruction in accident prevention not only among the workers as such but also in schools, (3) the importance of research into the methods and the practical application of vocational guidance and selection, and (4) the value of organising first-aid on the premises.

The third group (c.f. ante pp. 175-186) contains a number of principles most of which are recommended for incorporation in national laws or regulations, so as to create legal rights and obligations, e.g. that the law should prescribe the measures required to ensure a minimum standard of safety, that the employer should be legally responsible for the safety of his undertaking, that it should be a legal duty on the workers to comply with the safety regulations, that it should be required to consult the workers in the framing of safety regulations and to associate them in their supervision, etc. Other matters dealt with are the principle of official supervision of plans of buildings before the work is begun, compulsory powers of the official inspectorate or other competent body, the assistance which may be rendered by State-administered accident insurance institutions, etc.

It will thus be seen that the draft Recommendation covers a very wide field, and touches on all the more important of the general aspects of the problem of industrial safety. No doubt many of the principles formulated in it are already being applied in the older industrial countries, but there are many other countries belonging to the Organisation for which the draft should serve as a valuable guide to the lines on which their national activities for the prevention of industrial accidents should be organised and developed. In any case, the draft not only lays down the essential foundations for dealing with the problem
as a whole in all countries, but, in addition to its value for more immediate purposes, prepares the way on many points for further and more detailed action by the Conference in the future.

(2) Proposed Draft Convention concerning the marking of the weight on heavy packages transported by vessels (c.f. ante, pp. 187-196). The object of this draft is to protect the dock worker against the dangers to which he is exposed if, through their not being marked with their weight, heavy packages or objects which it is impossible to move by hand for the purposes of loading or unloading a ship but which have to be moved by mechanical means are lifted by cranes, etc. which are built for smaller loads and may therefore break down under the abnormal strain put upon them, with disastrous results to workers within range of the "accident". The draft accordingly lays down the principle that heavy packages or objects intended for transport by water are to be marked with their weight, and that this is to apply to packages or objects of 1,000 kilos (1 metric ton) or more gross weight. It has been seen that the value of this principle has been almost unanimously recognised by the Governments, and that the figure proposed appeared to be one which would be generally acceptable.

A number of Governments considered that the principle of the compulsory marking of packages should be further extended so as to cover packages which would be too heavy for the worker to attempt to lift or carry himself. As such an extension of the principle, however, would affect not only water transport, to which the question in the Questionnaire was expressly limited, but also rail, road and air transport and had not been in the minds of the majority of the Governments when framing their replies, it has not been considered possible at this stage to make any proposals on it to the Conference.

Two other Governments, again, proposed that different figures should be fixed for packages intended to be handled at maritime ports and those to be handled at inland ports. In view of the replies as a whole, however, and of the difficulties which might arise in some countries in the application of this proposal, a single figure has been fixed
in the draft irrespective of whether the packages are intended for transport by sea, river or inland navigation.

The effect of the draft is limited to packages and objects consigned within the territory of the Member which ratifies the Convention. As a number of Governments have pointed out, however, it is necessary in order to make the measure fully effective that imported packages too should be marked. Hence the insistence in a number of the replies on the necessity for a general ratification of the Convention. Certain methods of ensuring this result which were alluded to in the replies have been discussed at some length in the preceding chapter, without prejudice to the question whether a country's own ratification would not in any event be the means of giving some extra protection to its own workers, whether other countries ratified or not. The conclusion reached, it will be recalled, was that, while the very interdependence of different countries on each other made the present subject essentially one for a Draft Convention between the Members, not only was the measure proposed in the draft so comparatively limited in scope and easy to carry out that there could be little difficulty on a priori grounds in ratifying and applying the Convention, but also, and more important still, that there seemed every reason to believe, in view of the very favourable attitude of the replies as a whole, that the Convention would in fact be ratified and applied on a large scale. This latter observation, it is believed, will be found to be further confirmed at the Conference.

It remains to add that, in order to avoid any uncertainty, it has been considered desirable to indicate expressly in the draft that it is for national law in each country to determine on whom the responsibility for marking the packages and objects covered is to rest. There is clearly no necessity for any uniform rule on this point, provided the packages, etc. are in fact, in accordance with the obligation contained in the draft, marked before they have to be loaded on a ship or vessel.

(3) Draft Recommendation concerning responsibility for the protection of power-driven machinery. (c. §. ante, pp. 196-203). The gist of this draft is that it would be an extraguarantee of the safety of the workers if the responsi-
bility which should in any case rest on the employer for the proper protection of any machinery used in his undertaking were supplemented by making any persons inside the country concerned who supply him with power-driven machinery or install it on his premises responsible for seeing that it complies with the safety requirements laid down by the national laws or regulations for the protection of that type of machinery.

It has been seen that the principle of this measure was approved by the great majority of the Governments, and that the objections to the principle as such which were contained in a few replies appeared to be due for the most part to a misunderstanding of the scope and object of the question put in the Questionnaire.

It is hoped that these objections will be largely removed by the manner in which the first paragraph of the Recommendation is drafted. In any case, the draft makes the three following points clear. In the first place, it is emphasised that the responsibility which it is recommended should be placed on the supplier or installer of power-driven machinery is not intended in any way to diminish or interfere with, but to be distinct from and in addition to, the responsibility which should in any case remain on the employer using the machinery. The idea simply is that, if the employer is held liable for using a power-driven machine which is not properly protected in accordance with the national regulations and the supplier or installer can also be held liable for having supplied or installed the machine in that condition, the chances that the national regulations will be effectively complied with are increased. Secondly, it is made clear that there is no question of dealing with international trade in power-driven machinery. Imported machines are not affected until they come into the hands of suppliers or installers in the country concerned, and machines intended for export are totally excluded. Lastly, there is no attempt to modify the safety laws or regulations governing the protection of power-driven machinery in the individual country: it is simply a question of enforcing the national regulations, whatever they may be.

In framing the operative part of paragraph (1) of the draft, account has been taken of certain observations contained in a number of the replies as to the practical
difficulties of applying the measure referred to above in its widest scope, i.e. making the supplier or installer responsible for compliance with all the requirements of national laws or regulations. These difficulties, it has been seen, arise from the fact that national regulations for the protection of machinery are to a large extent framed in general terms and so leave a choice between different methods of complying with them. Because of these difficulties and of the fact that the measure in question has not so far been applied in more than a very small number of countries and even so only to a limited extent in nearly all cases (e.g. in regard to specific machines), the draft simply invites the Members to adopt and apply the measure to as great an extent as possible. It is moreover because of the comparatively limited experience so far acquired of the application of the measure that it has been thought desirable, in order to enable the Office to follow up the developments which may take place in the future, to ask the Members in paragraph (2) of the draft to keep the Office informed of the steps taken by them to apply the measure and of the results of its application.

DRAFT RECOMMENDATION CONCERNING THE PREVENTION OF INDUSTRIAL ACCIDENTS.

Whereas the protection of the workers against injury arising out of their employment is instanced by the Preamble to Part XIII of the Treaty of Versailles and to the corresponding Parts of the other Treaties of Peace as one of the improvements in industrial conditions which are urgently required;

Whereas industrial accidents not only cause suffering and distress among the workers and their families, but also represent an important material loss to society in general;

Whereas the International Labour Conference in 1923 adopted a Recommendation concerning the general principles for the organisation of systems of inspection, in which it is laid down Inter alia that inspection, in order to become progressively more effective, “should
be increasingly directed towards securing the adoption of the most suitable safety methods for preventing accidents and diseases with a view to rendering work less dangerous, more healthy, and even less exhausting, by the intelligent understanding, education and co-operation of all concerned; 

Whereas it is desirable that those measures and methods which experience in the various countries has shown to be most effective in enabling the number of accidents to be reduced and their gravity mitigated should be put on record for the mutual advantage of the Members; 

Whereas a Resolution was adopted at the 1928 Session of the International Labour Conference in which the Conference declared its opinion that the time had come to attempt to reach a higher standard of safety by the development of new methods and that the greatest advance could be made on the lines of the Safety First Movement, although it could not supersede the action of the State in prescribing and enforcing regulations for the prevention of accidents; 

Considering that it is of the highest importance that all persons or bodies, including employers, workers, Governments and the general public, should use their best endeavours and every means in their power to help to prevent industrial accidents: 

The General Conference recommends that each Member of the International Labour Organisation take the following principles and rules into consideration: 

I.

(1) In view of the fact that it is of primary importance for the prevention of accidents that their causes should be ascertained, and that methods of counteracting these causes should be discovered, each Member should arrange for systematic research into these problems, to be undertaken by Government institutions or by institutions or committees set up by individual branches of industry or by both classes of institutions working in co-operation.
(2) The industrial institutions and committees referred to in the previous paragraph should include representatives of employers and workers and of the competent inspection services, and, where considered desirable, of technical bodies and societies, and of insurance institutions and companies.

(3) Since it is essential for the furtherance of accident prevention that the results of the research referred to in paragraph (1) should be made known, and since it is also desirable that the International Labour Office should be in possession of the necessary information to enable its work in this sphere to be extended, the more important results of the research undertaken should be communicated to the International Labour Office, which will deal with them in its publications.

(4) The States Members should also communicate to the International Labour Office all available statistics on industrial accidents in their respective countries. They should also, with a view to the subsequent preparation of a Draft Convention, keep in touch with the International Labour Office in compiling and developing their industrial accident statistics, with a view to arriving at uniform bases which would as far as possible allow of a comparative study of the statistics of the different countries.

(5) The researches into accident prevention mentioned in paragraph (1) above should be concerned not only with the material conditions in factories, workshops and other workplaces, but also with the various factors which affect safety in such places and which are included in the phrase "the human factor", for example:

Effect of age and sex of workers; distribution and limitation of hours of work; fatigue, hygiene, lighting, temperature and ventilation of workplaces; temperament, physical condition, and skill of the worker; methods of organising work; attitude and movements of the worker; systems of wage payment; holidays; weather conditions, etc.
(6) In view of the satisfactory results which experience in different countries has shown to follow from co-operation between all parties interested in the prevention of industrial accidents, particularly between employers and workers, it is essential that the Members should do all in their power to develop and encourage such co-operation, as recommended in the Recommendation on systems of inspection adopted in 1923. This co-operation might be effected through any of the following means: the creation of standing district or national committees on which the various interested parties are represented; conferences of employers’ and workers’ representatives in particular industries together with Government inspectors; the creation of works’ councils, or by such other means as may be found best suited to the requirements of particular industries or individual countries.

(7) In order that the worker’s safety sense may not become blunted in daily contact with danger, the Members should do all in their power to maintain or reawaken the interest of the workers in safety problems by means of lectures, cinematograph films, visits to other industrial establishments, the creation of safety museums or exhibitions, and by such other means as they may find most appropriate.

(8) In view of the fact that the workers, by their conduct in the factory, can and should contribute to a large extent to the success of protective measures, the workers’ organisations should do all in their power to co-operate in the education of their members in order to safeguard them from industrial accidents. Government departments might participate in this work of education by issuing publications on safety to the workers’ organisations for distribution to the workers as well as by the other methods referred to in paragraph 7.

(9) In view of the importance of the work of education referred to in the preceding paragraph, which must rest on a solid foundation, the Members should arrange for preliminary instruction in first-aid hygiene to be given in elementary and secondary schools, as well as in the
elements of accident prevention in general. More advanced instruction in accident prevention should be given in vocational schools of all grades, where the importance of the subject both from the economic and moral standpoints should be impressed upon the pupils.

(10) Since the suitability of the worker for his work and the interest which he takes in his work are factors of primary importance for the promotion of safety, it is essential that the Members should encourage scientific research into the best methods of vocational guidance and selection and their practical application.

(11) In view of the great value of immediate first-aid treatment in lessening the gravity of the consequences of accidents, it is highly desirable that first-aid by properly trained persons should be given in undertakings generally as well as medical treatment in the larger undertakings. Arrangements should also be made for providing ambulance services for the rapid transport of injured persons to hospital or to their homes.

III.

(12) As all methods of furthering accident prevention must necessarily rest on a basis of legal provisions, the Conference recommends that each Member should prescribe by law the measures required to ensure a minimum standard of safety.

(13) It should be a rule of national laws or regulations that it is the duty of the employer to equip and manage his undertaking in such a way that the workers are adequately protected, regard being had to the nature of the undertaking and the state of technical progress, as well as to see that the workers in his employment are instructed as to the dangers of their occupation, if any, and in the measures to be observed by them in order to avoid accidents.

(14) It is in general desirable that plans for the construction or important alteration of industrial undertakings should be submitted, before the work is taken in hand, to the inspection service or other competent
authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the requirements prescribed for the prevention of industrial accidents.

(15) Officials of the inspection service or other body responsible for supervising the enforcement of the laws and regulations concerning the protection of workers against accidents should be empowered to give orders in the individual case to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal to a higher administrative authority or to arbitration.

In case of imminent danger the supervising authority should be empowered to require immediate compliance with the orders, notwithstanding the right of appeal.

(16) In view of the fact that an additional inducement is offered to employers to adopt all possible safety measures in their undertakings if they obtain thereby a reduction in the amount of the premium which they pay for insurance against accidents to their work-people, State-administered accident insurance institutions should be required, or at least empowered, to take into account in the fixing of premiums the measures taken in the various undertakings for the protection of the workers.

(17) Accident insurance institutions and companies, being directly interested from the material standpoint in diminishing the number of accidents, should co-operate in the work of accident prevention by such means as the following: communication of information on causes of accidents to the inspection service or other supervising authorities concerned; co-operation in the institutions and committees referred to in paragraph 2 and in the Safety First Movement in general; advances to employers for the adoption or improvement of safety appliances; the award of prizes to workmen, engineers and others who, by their inventions or ideas, contribute substantially to the avoidance of accidents; propaganda among employers and the public; advice on safety measures, etc.

(18) In view of the importance of the conduct of the worker alluded to above (paragraph 8) in connection with accident prevention, it should be a rule of national laws or regulations that it is the duty of the worker
to refrain from removing safety devices or preventing them from operating while the machinery is running, and generally to comply with the regulations on accident prevention.

(19) National laws should provide for the consultation of the workers before regulations on accident prevention are issued by the competent authorities, and for taking their views into account.

(20) Legal provision should be made for associating the workers in the work of supervising the observance of the safety regulations in the various undertakings, preferably under conditions to be fixed by agreement between employers and workers, or by any of the following means: appointment of workers to positions in the official inspection service; regulations authorising the workers to call for a visit from an official of the inspection service or other competent body when they consider such a course desirable, or requiring the employer to give workers or their delegates an opportunity of seeing the inspector when he is visiting the undertaking; safety committees including workers' representatives for supervising the enforcement of the regulations; or in any other manner which will ensure that the participation of the workers is effected.

PROPOSED DRAFT CONVENTION CONCERNING THE MARKING OF THE WEIGHT ON HEAVY PACKAGES TRANSPORTED BY VESSELS.

Any package or object of one thousand kilograms (one metric ton) or more gross weight consigned within the territory of any Member which ratifies this Convention for transport by sea, river or inland waterway shall have had its gross weight plainly, legibly and durably marked upon it on the outside before it has to be loaded on a ship or vessel.

It is left to national laws or regulations to determine whether the responsibility for having the weight marked as aforesaid shall fall on the consignor or on some other person or body.
Draft Recommendation concerning responsibility for the protection of power-driven machinery.

(1) In order more effectively to ensure, in the interests of the safety of the workers, that the requirements prescribed by national laws or regulations for the protection of power-driven machinery used in the country concerned are properly complied with, and

Without prejudice to the responsibility which should in any case rest and remain on the employer for seeing that any machinery used in his undertaking is protected in accordance with national laws or regulations,

Each Member should adopt and apply to as great an extent as possible the principle that it shall be illegal for any person within its territory to supply or install any machine intended to be driven by mechanical power and to be used within the territory which does not comply with the requirements prescribed by the national laws or regulations for the protection of machines of that type.

(2) Each Member should keep the International Labour Office informed of the measures taken by it to put the above-mentioned principle into operation and of the results of its application.

Draft Resolution.

The General Conference of the Members of the International Labour Organisation,

Having adopted a Recommendation concerning the prevention of industrial accidents which in paragraph (4) recommends the Members to keep in touch with the International Labour Office in compiling and developing their industrial accident statistics, with a view to arriving at uniform bases which would allow of a comparative study of the statistics of the different countries, and

Considering that, in view of its competence, its composition and the work it has already done in connection with industrial accident statistics, the International Conference of Labour Statisticians which is convened from time to
time under the auspices of the International Labour Office would be the best medium of liaison between the Members and the Office for the above-mentioned purposes.

Invites the International Conference of Labour Statisticians to consider at an early meeting the questions raised by paragraph (4) of the above-mentioned Recommendation, and, in particular, the questions whether, and what, uniform bases can be fixed for the compilation of industrial accident statistics in the different countries, and for which of the more dangerous industries such statistics should first be compiled in each country.
SECOND DISCUSSION REPORT I (SUPPLEMENTARY)

International Labour Conference

TWELFTH SESSION
GENEVA, MAY 1929

SUPPLEMENTARY REPORT
ON
PREVENTION
OF INDUSTRIAL ACCIDENTS

Item I on the Agenda

GENEVA
International Labour Office
1929
ADDENDUM

INTERNATIONAL LABOUR CONFERENCE
TWELFTH SESSION
GENEVA, MAY 1929

ADDENDUM
to
SUPPLEMENTARY BLUE REPORT
on the
Prevention of Industrial Accidents

Item I on the Agenda

Since the above Supplementary Blue Report was issued, the following reply to the Questionnaire on item I on the Agenda of the Conference has been received from the Chinese Government:

CHINA

A. I.

1. The reply is in the affirmative. However, the obligation on employers, workers and the Government may be legal as well as moral in nature.

2. The reply is in the affirmative. In particular, the safety provisions in mining industries, steel plants and other works involving great risks should receive special attention. Scientific research should deal with both the material conditions and the human factor.
3. The reply is in the affirmative.

4. The responsibility for making material provisions for safety and in particular for the equipment and upkeep of workplaces rests with the employers; but workers share with employers the responsibility for effective utilisation of these provisions.

5. The reply is in the affirmative.

6. The reply is in the affirmative. Only general principles should, however, be laid down.

7. The reply is in the affirmative.

A II.

1. The reply is in the affirmative.

2. Our Draft Factory Law and Draft Law of Factory Inspection, which are still in the process of enactment, provide that the employer is to equip and manage his undertaking in such a way as to protect the workers sufficiently; that the plans for the construction and alteration of industrial undertakings are to be submitted to the proper authorities for approval before the work commences; that the inspectors are to be empowered within certain limits to give orders to the employer as to the steps to be taken by the latter to fulfil his obligations in accident prevention; that the permission of the proper authorities must be secured by the inspector before he gives such orders in cases of importance; and that the employer has the right of appeal when he has just cause to think that he should not comply with the orders of the inspectors. We therefore endorse the principles laid down in 2 (a) (b) (c).

(d) (i) Accident insurance institutions should be required to take into account, for the fixing of premiums, the measures taken in the various undertakings for the protection of the workers.

(d) (ii) Accident insurance institutions may contribute effectively to furthering the work of accident prevention by offering to decrease the insurance premiums according to a sliding scale for factories whose records show a decrease of accidents up to a certain percentage.

3. Legal provisions are not the most effective means to remind the workers of their own responsibility to prevent accidents, but it is desirable that workers should participate in framing safety provisions and supervising their observance.
B.

1. (a) The reply is in the affirmative. A Draft Convention is preferred.

   (b) If the packages are to be transported by hand, the weight ought to be indicated when it is above, say, 100 pounds.

2. The reply is in the affirmative, because the manufacturer is always in a better position to know how to perfect the protective appliances of their own machines. However, in view of the varying conditions in different countries, only a Recommendation should be adopted for the time being.
ERRATUM.

By a letter dated 29 April 1929, which was received just as the present Supplementary Report was about to leave the press, the South African Government requested the Office to correct the following typographical error in its reply to the Questionnaire as previously communicated to the Office:

Page 26, SOUTH AFRICA, (b) (ii):

Instead of

“It is considered that legal provisions . . .”.

Read

“It is not considered that legal provisions . . . .”.
PRELIMINARY NOTE.

As was stated in the introduction to the first Blue Report issued by the International Labour Office on the present item on the Agenda of the Conference, that Report contained the replies of the Governments to the Questionnaire which had been received by the Office by 31 January 1929.

Since that date further replies to the Questionnaire have been received from the Governments of the following countries: Australia, Canada (Province of Nova Scotia), Greece, Italy, New Zealand, South Africa.

These replies are reproduced in the first part of the present Supplementary Report. Although it would not appear that these additional replies would, on the whole, involve any substantial modifications in the conclusions and the proposed Draft Convention and Recommendations contained in the first Report, it has been thought desirable to reproduce these drafts in the second part of the present Report, so that they may be more easily compared with the additional replies.
I. REPIIES OF THE GOVERNMENTS

The replies of the Governments of Australia, Canada, (Province of Nova Scotia), Greece, Italy, New Zealand and South Africa are reproduced in the following pages. The replies are grouped together under each separate question contained in the Questionnaire and are arranged by countries in alphabetical order.

PART A. QUESTION 1.

Fundamental Principle

Do you consider that the International Labour Conference should adopt a Recommendation embodying the general principle that there is a moral obligation not only on employers and workers, but also on Governments and the general public to use their best endeavours and every means in their power to help to prevent industrial accidents?

AUSTRALIA

The reply is in the affirmative.

CANADA

Nova Scotia.

The reply is in the affirmative.

GREECE

The reply is in the affirmative.
ITALY

The Italian Government is of opinion that the International Labour Conference should state, in the Recommendation to be adopted on the subject, the obligation of taking all measures for the prevention of accidents, not only on the part of employers and workers but also and principally on the part of the State, whose intervention in the matter is called for by humanitarian and social as much as for economic reasons.

NEW ZEALAND

The reply is in the affirmative.

SOUTH AFRICA

Yes. The advantage to be gained by extending the resolution to include Governments and the general public is that it will then be possible to educate public opinion by means of Safety Associations or similar propaganda to support Governments in the enactment of the necessary legislation. Present experience tends to show that the general public is indifferent to legislation of this nature.

PART A. I. QUESTION 2.

Research into causes of accidents and means of prevention

Do you consider that a Recommendation concerning the prevention of industrial accidents should also deal with all practical measures required for putting into operation the principle indicated in the preceding question?

(a) Do you consider, in this connection, that the Recommendation should emphasise in the first place the need of organising constant and systematic research both for elucidating the causes of industrial accidents and for discovering the best methods of preventing them, such research to be undertaken primarily by official State institutions and public institutions of a similar standing, with the help of the interested parties, or by technical institutions set up by the different branches of industry?
(b) (i) Do you consider that the Recommendation should invite the States Members of the International Labour Organisation, with a view to the subsequent preparation of a Draft Convention, to keep in touch with the International Labour Office in compiling and developing the industrial accidents statistics for their respective countries, with a view to arriving at uniform bases which would as far as possible allow of a comparative study of the statistics of the different countries?

(ii) Have you any suggestions to make as regards the method of arriving at the desired result?
In particular, do you consider that particular branches of industry should first be dealt with, and if so, which?

(c) What other matters do you consider should be taken into account in scientific research into the prevention of industrial accidents?

(d) Do you consider that scientific research with the object of preventing industrial accidents should be concerned not only with the material conditions in the various establishments, but also with the human factor?

AUSTRALIA

The reply is in the affirmative.

(a) The reply is in the affirmative.

(b) The reply is in the affirmative.

(ii) It is considered that the resolutions of the International Conference of Labour Statisticians held at Geneva in October-November, 1923, in respect of statistics of industrial accidents should be adopted. The Commonwealth Department of Health is collecting and compiling industrial accident statistics on the lines recommended by this Conference. For particulars regarding the basis of records, etc., see pages 32-38 of Service Publication (Division of Industrial Hygiene) No. 2 — "Industrial Accident Prevention" — forwarded herewith.

The collection of information regarding accidents might be made through reports being furnished by industrial managements to the Government Labour Departments or to Workmen's Compensation Commissions or Accident Boards where they exist.
The New South Wales Government Gazette, No. 106, of the 10th August 1928 at page 3743 et seq. contains amended forms and schedules to the regulations made under the Workers' Compensation Act, 1926-1927, in connection with the reporting of accidents, the classification of industries, and causes and locations of injuries.

Attached hereto is an 'Injury Statistics' form used by the Commonwealth Department of Health for the collection of information regarding accidents to employees in the Australian Railways. These forms are filled in by the staff branches and forwarded to the Department for compilation, codes of occupational groups having been arranged so as to permit a comparison being made of accident occurrence in corresponding groups in the different State Railway systems. It is not considered that any particular branch or branches of industry should first be dealt with, but that attention should be directed to any industry in which a high accident incidence is noted.

(c) The psychology of the worker sustaining injury.

(d) The reply is in the affirmative.

CANADA

Nova Scotia.

Conditions vary so greatly in the different countries that it might be difficult to draft definite measures in detail, but suggestions toward the desired objective would seem practical.

(a) Yes, — but the method would have to be developed in keeping with the size and financial ability of the State and the nature and extent of its industrial development.

(b) (i) The reply is in the affirmative.

(ii) A decision would have to be made as to what would constitute an accident for record and statistical purposes. The important and outstanding industries of each State should be dealt with first.

(c) No reply.

(d) Yes. The human factor is the largest element in industrial accidents and their prevention.

GREECE

(a) The reply is in the affirmative.

(b) (i) The reply is in the affirmative.

(ii) It is considered that all branches of industry should be dealt with.
Scientific research should be concerned not only with the material conditions in the various establishments but also with the human factor.

ITALY

In the view of the Italian Government the Recommendation should indicate all the practical measures to be taken in order to ensure that the obligation enunciated in the previous reply is carried out.

(a) Since the work of prevention cannot be effective unless the causes of accidents are enquired into and measures of prevention studied, the necessity should first be recognised of suitable research into these causes and measures in the various branches of industry and agriculture, and the suitability for this purpose of State institutions or other public bodies, whether of a similar kind or technical in character, with the collaboration and help of all the interested parties.

(b) (i) It also appears highly desirable that the Recommendation should contain an invitation to the States Members of the International Labour Organisation, with a view to the subsequent preparation of a Draft Convention, to compile and develop statistics of industrial accidents, and to keep in touch with the International Labour Office, while remaining free to choose the methods to be adopted in carrying out research, with a view to fixing uniform bases for classifying and so rendering possible a comparative study of the statistics of the different countries. In the view of the Italian Government research should be chiefly concerned with the demographic side of the subject, while research into the economic and financial phases should be left to the initiative of individual countries.

(b) (ii) It is also desirable that the statistics should (1) be carried out by a single body to which insurance institutions will be obliged to furnish the necessary information, and (2) should take account of all accidents liable to be compensated as soon as reported and without awaiting the result of the claim so that the consequences may have no relation with the causes.

In particular it is thought desirable that statistics should in the first place be confined to the industries which are similar and continuous in the various countries and among them those which are notoriously the most dangerous.

(c) It would also appear that scientific research into accident prevention might be assisted by the following measures:
(1) a comparative statement of the measures adopted in the various countries for the same object;

(2) the exposition of the practical results of preventive measures;

(3) the creation by each State of bodies or services for studying the technical problems of safety.

(d) It is also considered that scientific research into the prevention of accidents should not preclude the study of the human factor, since an accident may be caused not only through danger inherent in the manufacture but also through the personal reactions of the injured person.

Encouragement should therefore be given in particular to the study of fatigue, the physiological and psychological conditions which may have had effect on the accident, vocational guidance, the degree of education of the worker, etc.

NEW ZEALAND

The reply is in the affirmative.

(a) The Government of New Zealand considers that so far as practicable research should be undertaken by State institutions in all industries with the co-operation of technical institutions set up in different branches of industry. At the present time the Department of Labour in conjunction with the Inspection of Machinery Department in New Zealand exercises supervision over factories and other buildings where machinery is installed, with the object of seeing that adequate safeguards are provided in all cases where dangerous machinery etc., is in use.

(b) (i) The Government Statistician advises as follows: International uniformity in the compilation of accident statistics is an ideal, the attainment of which would increase very considerably the value of such statistics to the individual countries. When detailed statistics of industrial accidents were initiated in New Zealand in 1925, the Report (Series N. No 3) of the International Labour Office on methods of statistics of industrial accidents was freely consulted and the method of treatment adopted in this country is based on the recommendations laid down in that report. The standard classifications of the American Committee detailed in Appendix II of that report have been followed very closely in the drafting of classifications for the treatment of accident statistics in New Zealand, although it has not been found
practicable, or indeed necessary, to include as much detail as set out in these classifications. This is particularly the case in respect of location of injury where the New Zealand classification is much less detailed than the American standard classification; although, indeed, much more comprehensive than that recommended by the European Committee in the above-mentioned report.

(ii) In the opinion of the Government Statistician of New Zealand investigation on the following lines would assist considerably in the attainment of comparable statistics of industrial accidents:

1. Agreement as to the definition of "industrial accident" for statistical purposes. In the international report referred to previously no attempt has been made at a standard definition although the American Committee purposes to regard as tabulatable all accidents resulting "in death, permanent disability or in the loss of time other than the day, shift or turn on which the injury was sustained". The New Zealand statistics include only such accidents which result in the loss of at least three working days: that is, such accidents as are compensable under the Workers' Compensation Act in this country.

2. The adoption of a standard of classification of industries. The New Zealand classification although not identical with the standard European classification as set out in the Geneva report can be brought into line by merely grouping the industries. Individual industries need to be "watertight" to avoid overlapping or confusion. The Government Statistician of New Zealand considers an industrial classification to be preferable to an occupational one as being more informative while still retaining an occupational basis through subdivision in the industrial groups.

3. Agreement as to classification of causes. The New Zealand classification is a compromise between the "European" and "American". It appears to the Government Statistician that cause 10 in the "European" classification — Metalled Roads — should rather be allocated amongst the other causes.

4. Indication as to what is included in the compensation paid. In some countries medical expenses are paid but the statistics of compensation paid do not indicate what amount is compensation for loss of wages or disability and what part is on account of medical expenses. Some agreement is necessary as to what shall be included under the heading "compensation". In New Zealand £1 is granted for medical expenses for all accidents irrespective of severity and this amount is included in the compensation shown.
5. Standard classification of location of injury. It is the experience of the Government Statistician's office that broad divisions only are preferable except in the case of (1) eyes and (2) upper and lower extremities where full detail as to extent of injury particularly as to finger injuries and as to whether right or left arm is affected is particularly important.

6. Nature of Injury. New Zealand investigation bears out the value of the international recommendation that tabulation should be made with provision for infection following. In many cases serious and permanent disablement results from septic poisoning; and the Government Statistician suggests that this matter be stressed.

The Government Statistician states that in New Zealand the frequency rate for slaughtering accidents and the severity rates for railway and sawmilling accidents would indicate that there is a particular need for enquiry into these industries. The major portion of machine accidents in this country occur among foundry workers, sawmilling employees and printing trades employees. In New Zealand, essentially a primary producing country, the incidence of industrial accidents would no doubt differ considerably from that in countries where manufacture predominates.

(c) No suggestion.

(d) The reply is in the affirmative.

SOUTH AFRICA

Yes. It is considered that it is by only using these means that it will be possible to obtain international standardisation of safety methods.

(a) Yes, speaking generally. It is considered that the best method to adopt is that research work should be carried out under Government control, but subsidised by industry rather than by technical institutions set up by the different branches of industry. The South African Miners' Phthisis Bureau is an example as to how this can be done.

(b) (i) Yes. At the present time there are many difficulties, to be overcome in regard to the details for comparison, but it is considered that these can only be eliminated by adopting this principle.

(ii) An important question which requires solution is to arrive at an international agreement as to the definition of the term "accident". At the present time this varies considerably in industrial countries and embarrasses the
comparison of statistics. Up to the present time it has been found impossible to give a definition which is of universal acceptance. It is suggested that the recommendation should contain a reference to the desirability of obtaining an agreement in regard to the following matters:

(1) Definition of industrial accident.
(2) Classification of industries.
(3) Classification by causes.

There are, of course, other important considerations which require standardisation, but is it thought that if agreement can be arrived at for these questions, advance will have been made.

It is considered that the industries well known to be dangerous should be dealt with first, such as mining, quarrying, woodworking, engineering and the manufacture of chemicals.

(e) Apart from the material side of prevention of accidents such as regulations dealing with guarding machinery and similar legislation, there is a very extensive field for research in such matters as fatigue, light, atmosphere, monotony, noise, design of machinery in relation to the operator and vocational guidance, which should form part of any scheme of scientific research in the prevention of accidents.

(d) There would appear to be ground for belief that the human factor can and does play an important part in the frequency of accidents and should therefore be included in scientific research.

PART A. I. QUESTION 3.

Co-operation of interested parties

Do you consider that the Recommendation should contain a clause emphasising the great importance of co-operation between all the parties interested in the prevention of industrial accidents, including employers and workers, and inviting the States Members to do all in their power to develop and encourage such co-operation?

AUSTRALIA

The reply is in the affirmative.
Canada

Nova Scotia.

The reply is in the affirmative.

Greece

The reply is in the affirmative.

Italy

The Italian Government considers it desirable that the Recommendation should contain a clause emphasising the great importance of co-operation between the parties interested in the prevention of industrial accidents, including employers and workers, and inviting the States Members of the organisation to do everything possible to develop and encourage such co-operation.

New Zealand

The reply is in the affirmative.

South Africa

It is considered that active co-operation of all the parties concerned is an essential factor for success and should be included in the recommendation.

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PART A. I. QUESTION 4.

Employers' responsibility

Do you consider that the Recommendation should contain provisions to the effect that the responsibility for taking protective measures and in particular for the equipment and upkeep of workplaces rests with the employers?

Australia

The reply is in the affirmative.
CANADA

Nova Scotia.

Primarily,—yes, but there is a joint responsibility on employers, employees and the public generally, and full co-operation should be encouraged.

The Provincial Government, representing the people, has already evidenced its responsibility through the enactment of the Factories Act and the Coal Mines Regulations Act and subsequent statutory rules and regulations enforceable against both employers and employed.

GREECE

The reply is in the affirmative.

ITALY

The Italian Government considers that the Recommendation should contain express provisions to the effect that the responsibility for taking the necessary protective measures rests with the employers, and that they are also responsible for the equipment and upkeep of workplaces in such a condition as to ensure the safety of the workers.

The above-mentioned obligation and responsibility are to be understood in the sense that the employers should take all safety measures prescribed by the laws and safety regulations and recommended by the inspecting bodies, with a view to protecting the life and limb of the worker, and that they should be responsible in damages and liable to criminal proceedings in the case of accidents due to their fault or that of their agents.

NEW ZEALAND

The reply is in the affirmative.

SOUTH AFRICA

Yes. This responsibility is so often disregarded that it is considered important to give emphasis to it in the recommendation.
PART A. I. QUESTION 5.

Workers' responsibility

Do you consider that the Recommendation should also draw the attention of the workers to the fact that by their conduct in the workplace they can and should contribute to a large extent to the success of protective measures, and that it accordingly rests with the workers' organisations to co-operate in the education of their members in order to safeguard them from industrial accidents?

AUSTRALIA

The reply is in the affirmative.

CANADA

Nova Scotia.

The reply is in the affirmative.

GREECE

The reply is in the affirmative.

ITALY

In the opinion of the Italian Government it is also the duty of the workers to co-operate in the work of accident prevention. Not only should the Recommendation draw the attention of the workers and their organisations to the possibility and the duty of contributing as much as possible to the success of protective measures, but it should also provide for the possibility of penalties for workers who fail to utilise the safety measures placed at their disposal or who fail to observe the safety rules. The interest of the workers should be particularly stimulated by the trade unions, whose duty it is to see to the education of the workers and to assist them. The workers should pay careful and constant attention to the avoidance of injury, and they should be educated by means of active propaganda on occupational risks and the great influence which their own conduct may have on these risks.
New Zealand

Yes; the Department of Labour in New Zealand distributes safety posters to factory occupiers to be placed where they can be easily seen by workers.

South Africa

Yes. For similar reasons as stated in Question 4, it is important that the responsibility of the workers should be emphasised.

PART A. I. QUESTION 6.

Instruction in accident prevention

Do you consider that, in order to further the co-operation between all the interested parties referred to in Question 3 above, the Recommendation might usefully invite the States Members to take the following measures:

(a) To encourage, with a view to educating the people, instruction in the problems of the prevention of accidents, including first aid hygiene, in elementary schools and continuation schools;

(b) To see that pupils in technical schools and polytechnics receive adequate instruction in methods of accident prevention, and that their attention is drawn to the importance of accident prevention both from the economic and moral standpoints, so that when they come subsequently to hold posts in industry they may pay special attention to the work of accident prevention;

(c) To maintain the interest of pupils in accident prevention after they have left school and entered industry, by means of lectures, cinema films, and visits to undertakings, and to encourage the creation of safety museums and the giving of practical instruction in them:
(d) To increase the contribution to the furtherance of accident prevention which can be made by methods of vocational guidance and selection, by encouraging scientific research into these methods and their practical application?

AUSTRALIA

(a) The reply is in the affirmative.

(b) Yes. The syllabus of the primary schools in Australia includes a certain amount of first aid and a fairly thorough treatment of hygiene in general. In the Education Gazette of New South Wales a leaflet dealing with 'Safety First' ideas is inserted every month. These leaflets are used by the teachers for lessons to the children, and are posted up around the schools. The efficiency of first-aid instruction depends on whether the teacher has taken the St. John Ambulance Association course or not. In New South Wales lectures are given to teachers at the Teachers' College on hygiene including a considerable amount of first-aid treated as a practical problem relating to physiology and health.

In the High or Technical Schools of Australia no definite instruction is given in first-aid, although many schools have organised St. John Ambulance classes. In the Domestic Training Schools, first-aid is taught in connection with the hygiene syllabus, but 'Safety First' is largely confined as a subject to the primary schools.

(c) (d) The reply is in the affirmative.

CANADA

Nova Scotia.

(a) (b) (c) (d). The reply is in the affirmative.

GREECE

(a) (b) (c) (d). The reply is in the affirmative.

ITALY

For the realisation of the objects already mentioned in the reply to question 3 on the necessity of the collaboration of all the interested parties for the prevention of accidents,
the Italian Government considers it desirable that the Recommendation should invite the States Members to recognise that the instruction of the worker in his own protection from physical danger can be obtained by means of education at school better than by measures of propaganda, and to take the following measures in consequence:

(a) to see that in elementary schools and continuation schools, which are chiefly attended by future workers in workplaces and in the fields, some instruction is given with the help of cinematograph films in the general principles and rules of hygiene and safety at work and the methods and use of urgent first-aid;

(b) to see that practical and technical instruction in measures and methods of accident prevention is given in technical schools and polytechnics, which are attended by those who later occupy positions of responsibility in industry, and that the pupils' attention is particularly drawn to the importance of accident prevention, both from the social and economic points of view;

(c) to see that the work of propaganda and education is continued after the school age through special advanced courses of instruction, visits to factories and well organised establishments, lectures and propaganda, educational films and the creation of permanent safety exhibitions;

(d) to see that the States themselves and other bodies do not fail to give the necessary encouragement to scientific study and research into safety methods, and that they further as far as possible the contribution which can be made to the solution of these problems by methods of vocational selection and guidance.

NEW ZEALAND

(a) The Education Department advises as follows: Instruction is already given in first aid and hygiene in New Zealand elementary schools, and also in many of our high schools, and teachers are enjoined to encourage their children to avoid danger from accidents through articles in the "Education Gazette", which goes to every teacher, and by means of special lessons in the "School Journal", which goes to every pupil. Special references are made to the necessity of training pupils to avoid unnecessary risk of accident and to take "safety first" precautions.
(b) Pupils in Technical Schools, especially those engaged in workshop practice, are trained to avoid accidents in the use of tools and machinery, and there would be no objection to the suggestion that pupils taking industrial courses should receive instruction in methods of accident prevention.

(e) The Education Department of New Zealand cannot see that it could do much to interest pupils in accident prevention after they leave school. Even if the Government of New Zealand undertook to give lectures and provide cinema films and to take other means to interest people in the subject, it would be difficult to get those concerned to attend such demonstrations in a country that is not largely industrial.

(d) The Education Department cannot see that much could be done in New Zealand to further accident prevention by methods of vocational guidance of pupils leaving school or by scientific research into such methods and their practical application.

SOUTH AFRICA

(a) Yes. It is considered that education of this nature, if carried out systematically, would be of great value and should be emphasised in the recommendation.

(b) Yes. It is considered that education of this nature should form part of the curriculum of institutions of a technical nature. A commencement has been made in this connection in the Union of South Africa.

(c) The reply is in the affirmative.

(d) The reply is in the affirmative.

PART A. I. QUESTION 7.

First aid

Do you consider that the Recommendation should refer to the great importance of organising immediate first aid or medical treatment in industrial plants and workplaces?
Part A. I. Question 7

Australia

The reply is in the affirmative.

Canada

Nova Scotia.

Yes. This practice is already in effect in Nova Scotia.

Greece

The reply is in the affirmative.

Italy

The Italian Government, recognising the extent to which timely medical aid may reduce and even eliminate the consequences of an accident, considers that the organisation of first-aid in workplaces is a social duty and that its great importance should be brought out in the Recommendation.

New Zealand

Yes. Provision is made in New Zealand for first aid outfits, etc., in factories; also similar provisions are inserted in the Shearers' Accommodation Act and in various Awards of the Court of Arbitration (which apply to industries generally).

South Africa

Yes. It is considered that this is an essential service which should be emphasised.
PART A. II. QUESTION 1.

Principle of regulations for a minimum standard of safety

Do you consider that the Recommendation should embody the principle that the law should prescribe regulations for ensuring a minimum standard of safety?

AUSTRALIA

The reply is in the affirmative.

CANADA

Nova Scotia.

The minimum standard of safety, so far as practicable, is now prescribed in this Province through the Factories Act and the Coal Mines Regulations Acts, which Acts are supplemented by the Rules and Regulations adopted by the Accident Prevention Association.

GREECE

The reply is in the affirmative.

ITALY

The Italian Government agrees that the Recommendation should embody the principle that the law should prescribe regulations for ensuring a minimum standard of safety for the workers.

NEW ZEALAND

The reply is in the affirmative.

SOUTH AFRICA

Yes. The adoption of this principle in all legislation will tend to international standardisation.
Duties of employers, powers of competent authorities and rôle of accident insurance institutions

In this connection, should provision be made on the following lines as regards employers:

(a) That the employer is bound to equip and manage his undertaking in such a way that the workers are sufficiently protected, regard being had to the nature of the undertaking and the state of technical progress;

(b) That plans for the construction or alteration of industrial undertakings are to be submitted, before the work is taken in hand, for examination by the factory inspectorate or other competent authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the safety regulations;

(c) (i) That whatever bodies are responsible for supervising the enforcement of the laws and regulations concerning the protection of the workers against accidents are to be empowered to give orders in the individual case to the employer as to the steps to be taken by him to fulfil his obligations, subject to a right of appeal to an authority specially organised for this purpose;

(ii) If so, should the responsible body be empowered in cases of imminent danger to require immediate compliance with the orders, notwithstanding the right of appeal?

(iii) If the answer to (i) is in the negative, what system do you recommend for ensuring that the laws and regulations are enforced?

(d) (i) That, in countries where there is a system of insurance against industrial accidents administered by or under the direction of the State, the industrial accident insurance institutions should be

(1) empowered, or

(2) required,

to take into account, for the fixing of premiums, the measures taken in the various undertakings for the protection of the workers?
(ii) What further importance do you ascribe to accident insurance or workmen's compensation in the matter of accident prevention, and in what way, in your opinion, could accident insurance institutions or accident insurance companies contribute effectively to furthering the work of accident prevention?

**Australia**

(a), (b), (c) (i) (ii). The reply is in the affirmative.

(d) (i) Yes. They should be so empowered.

(ii) Accident insurance institutions or companies can effectively further the work of accident prevention by bringing under the notice of the Labour and Health Departments any undue incidence of injuries or industrial disease occurring in any particular works. By lowering their premium where proper medical service is offered to employees, they can encourage prompt and proper immediate treatment of injuries.

**Canada**

*Nova Scotia.*

(a) Theoretically yes, but in practice in this Province, it would be difficult and financially burdensome to carry out, having in view the expense entailed in providing adequate and competent inspection.

(b) Theoretically, yes — but not feasible in this Province owing to the cost involved in providing an adequate and competent staff to ensure practicability and expedition. In specialised undertakings such as in steel mills, etc., it would not be practicable for the Government to maintain specialists as competent as those employed by the Companies themselves or that the companies might secure on special occasions.

(c) (i) Under the Factories Act and the Coal Mines Regulations Act, the inspectors, under certain conditions, have the power to enforce laws and regulations in individual cases to ensure the protection of the workers.

(ii) This would depend largely on the competency of the responsible body.

(iii) Safety education and the supervision of Factory Inspectors, Safety Engineers employed by Safety Associations and individual companies, and by Employees Shop Safety Committees.
(d) (i) Yes — should be **empowered**. This is practically what is termed “Merit Rating”. This scheme has been under consideration in this Province but so far has not been adopted owing to the limited industrial development of the Province and the small number of kindred or like industries in it.

When taking into account the measures taken in the various industries for the protection of workers, consideration has to be given not only to the material and mechanical conditions but also to the human factor. This is: what has been done in the way of educating the employees in safe methods and in enforcing safety regulations. The type of employees in the industry also has a bearing on the situation.

(ii) By spending or contributing money for safety educational work, such as is being done in this Province.

**GREECE**

(a) Under Article 1 of Act No. 3934 of 19 November 1911 on the hygiene and safety of workers, etc., manufacturers, managers, shopkeepers, contractors and employers of every kind as well as the directors and managers of social establishments are required to equip and manage their factories, workshops and shops, as well as the machinery, tools and accessories therein, in such a way that the workers employed on such machinery are protected from danger to life and health and from bodily injury so far as the nature of the undertaking permits, etc.

(b) In this respect there is in Greece the Royal Decree of 12 October 1922 which governs the issue of authorisations for building and operating machinery installations. Article 1 provides that no general machinery installation may be set up without special authorisation from the Ministry of Means of Communication.

It is considered that the provisions of this Decree should be applied to all undertakings.

(c) (i) and (ii). The reply is in the affirmative.

(d) (i) It is considered that in the case in question industrial accident insurance institutions should be empowered to take into account when fixing premiums the measures taken in the various undertakings for the protection of the workers.

(ii) It is considered that accident insurance carried on by public institutions is preferable.
ITALY

After what has been said in reply to Question 4 of the preceding section concerning the employer’s responsibility, the Italian Government considers it a logical consequence that the Recommendation should indicate that it is the duty of the employer:

(a) To equip and manage his undertaking in such a way that the workers are sufficiently protected against accidents;

(b) to submit for the approval of the competent authority plans for the construction or alteration in the equipment of industrial undertakings, in order that it may be ascertained whether the safety regulations are being observed;

(c) (i) to observe the instructions which the officials charged with the application of the safety laws and regulations, within the limits of their competence, issue in the individual case, subject, however, to a right of appeal on the part of the employer to a higher authority;

(c) (ii) In case of imminent danger, even when an appeal against the orders of the officials has been lodged, to carry out the orders, provided that they are based on the safety regulations.

(d) (i) The Italian Government also considers that industrial accident insurance institutions should take into account, for the fixing of premiums, measures taken in the various undertakings for the protection of the workers, so that, the insurance premium being properly proportioned to the standard of safety in a particular establishment, the employer is encouraged to adopt the measures devised for accident prevention;

(d) (ii) the Italian Government also considers, with regard to the share of insurance institutions in the work of accident prevention, that they might usefully help by collaborating in the establishment of accident statistics, possibly also by financial assistance to institutions for the study of accident prevention and the dissemination of information, as well as by offering prizes for the encouragement of inventors of safety appliances and by means of assistance after an accident has occurred.

NEW ZEALAND

(a) The reply is in the affirmative.

(b) Yes; provision is already made in the New Zealand Factories Act, Sec. 10 (2) 1921, for plans of factories to be
submitted to the Department of Labour for the purpose of seeing that adequate safeguards are installed. The Inspector of Factories (if of the opinion there are defects in the plan) may require the person proposing to build a factory to remedy defects. The Inspector of Factories may refuse to register a factory until his requisition is complied with.

(c) (i) Yes; an Inspector of Factories in New Zealand is empowered by the Factories Act (1921), Sec. 39 (1) to require occupiers of factories to comply with the rules to be observed (as defined in Sec. 39 (1)) for the prevention of accidents. The Government of New Zealand sees no objection to a right of appeal to an authority specially organised for the purpose of hearing appeals against the requisitions of an Inspector. In this connection it may be mentioned that the Factories Act in New Zealand provides that an occupier may, if he considers the Inspector's requisition to be unreasonable, appeal to the nearest Stipendiary Magistrate, who may confirm, reverse, or modify the requisition as he thinks fit. (Section 66 (d)).

(ii) The reply is in the affirmative.

(iii) No reply.

(d) The State Accident Insurance Department advises as follows:

(i) That the Government of New Zealand is not prepared to express an opinion on this portion of the questionnaire. Safety work and accident prevention are not at present recognised in connection with the fixing of workers' compensation rates. The narrow margin now available for working expenses and profits in New Zealand makes it difficult if not impossible under a competitive system to grant concessions to employers who may do safety work.

(ii) The Government of New Zealand has no comments to offer.

SOUTH AFRICA

(a) Yes. This principle is adopted in the Union of South Africa.

(b) Yes. This principle is embodied under the Factories Act of the Union of South Africa and has proved of great value.

(c) (i) Yes.

(ii) Yes, but it is considered that this power should be limited to cases of imminent danger and any action taken should be subject to immediate revision by the higher authority.
(d) (i) It is considered that insurance institutions of the nature indicated in this question should be required to take into account the measures adopted in any undertaking to guard against accidents. It is considered that suitable encouragement can be given towards safer working if consideration is given by means of a rebate or bonus system in assessing premiums especially in the more dangerous branches of industry. This aim it is thought can be achieved better if insurance institutions are required to do this rather than by leaving it to voluntary effort.

(ii) It is considered that compulsory insurance against accidents should be insisted upon by all employers in industry and that every encouragement should be given to cause collaboration between employers, insurance institutions, accident insurance companies and workers by means of safety committees and national associations or by individual industries.

PART A. II. QUESTION 3.

Duties and participation of workers

Do you consider that legal provisions should be adopted to associate the workers with the work of accident prevention and to regulate the part which they should take?

(a) If so, with what matters do you consider that such legal provisions should deal, and what proposals have you to make on these matters?

(b) Do you consider, in particular, that such legal provisions should—

(i) contain rules defining the duty of the workers to comply with the laws and regulations on accident prevention;

(ii) provide for the participation of the workers in framing such provisions and supervising their observance?

(c) If the answer to (b) (ii) above is in the affirmative, in what ways (possibly varying according to the particular circumstances of each industry and the size of undertakings, etc.) do you consider that the participation of the workers could be carried out?
THE REPLY IS IN THE AFFIRMATIVE.

(a) Collaboration of the workers in framing regulations and in the supervision of their observance.

(b) (i) The reply is in the affirmative.

(ii) The reply is in the affirmative.

(c) By all regulations before adoption being considered in conference between the Labour Department and representatives of employers and employees.

(CANADA)

Nova Scotia.

Might be feasible in a limited way.

(a) Compulsory use of installed safeguards and the compliance with safety rules and regulations.

(b) (i) The reply is in the affirmative.

(ii) The reply is in the affirmative.

(c) By the appointment of Safety Committees in each plant which has a sufficient number of employees to make this practical.

(GREECE)

The reply is in the affirmative.

(a) The views of workers should be of an advisory character.

(b) (i) The reply is in the affirmative.

(ii) The reply is in the negative.

(ITALY)

In the opinion of the Italian Government it is desirable that the Recommendation should mention the utility of legal provisions to associate and regulate the participation of the workers in the work of accident prevention.

(a) and (b) In general the duty of the workers to comply with the safety rules should be laid down, whether these rules are contained in laws and regulations or are made by officials
of the inspectorate. The duty of the workers to maintain in proper condition all safety appliances provided by the employer should also be laid down, as well as the possibility of fines for more serious breaches of the regulations.

It would not appear advisable, however, to admit the possibility of the workers' direct participation in the supervision of the safety rules by the employers. The workers' collaboration in the prevention of accidents should be confined to special tasks to be entrusted to works committees or analogous organs, it being always within the competence of the trade unions to maintain contact with the inspection services.

**NEW ZEALAND**

The Government of New Zealand is not prepared to express an opinion while the future of Workers' Compensation insurance is still a subject of enquiry.

**SOUTH AFRICA**

(a) It is considered that legal responsibility to carry out their duties under regulations should be imposed on workers, but that this should be the extent to which legal provisions should be extended to workers.

(b) (i) It is considered that all rules and regulations for the prevention of accidents should define the extent of the duty of the worker to carry them out.

(ii) It is considered that legal provisions should be made in these directions but that it should be left to voluntary cooperation between workers' associations and the higher authority.
PART B. QUESTION 1.

Indication of weight on packages transported by vessels

(a) Are you in favour of a Draft Convention or of a Recommendation to make it compulsory for the sender to indicate the weight on heavy packages transported by vessels?

(b) If so, what limit should be fixed above which the weight should be marked on the packages?

AUSTRALIA

The Commonwealth Government favours a recommendation.

CANADA

Nova Scotia.

(a) The reply is in the affirmative.
(b) 1,000 pounds.

GREECE

(a) The Government is in favour of the adoption of a Draft Convention to make it compulsory for the sender to indicate the weight of heavy packages transported by vessels.

(b) It is considered that the limit above which the weight should be clearly marked on the packages should be 1,000 kilogrammes.

ITALY

(a) The Italian Government is in favour of the adoption of a Draft Convention to make it compulsory for the sender to indicate the weight on heavy packages transported by vessels.

(b) The limit above which the sender should be obliged to indicate the weight on the packages should be based upon the maximum limit for transport by hand, which might be fixed at 75 kilogrammes.
NEW ZEALAND

(a) The Marine Department advises as follows:

This is undoubtedly desirable, and so far as the experience of the Marine Department of New Zealand goes, is the general though not universal practice with weighty import cargo. So far as New Zealand coastal cargo is concerned, apart from coastal transhipments of overseas cargo, there is not a great deal of cargo that would call for weight marking as it is generally of a kind where weights are known. At the larger ports weighbridges are available, but this is frequently not the case at smaller ports, so that in such cases there would be difficulty in complying with the requirement of compulsory weight marking.

As regards overseas import heavy cargo which may not be marked, the weight is generally entered on the ship's manifest.

(b) It is suggested that the weight limit above which packages should be weight marked should be one ton. In New Zealand general practice the ordinary working slings are capable of lifting a ton with safety. For weights above a ton special slings are used.

SOUTH AFRICA

(a) The answer is in the affirmative.
(b) 4000 lbs.

PART B. QUESTION 2.

Protection of Machinery

Are you in favour of a Draft Convention or of a Recommendation to the effect that provision should be made by national laws or regulations making any firm or person within the country concerned supplying or installing power driven machinery for use within that country (without prejudice to the responsibility of the employer using such machinery) responsible for seeing that such machinery complies with any safety regulations laid down by the national laws or regulations in respect of machinery of that type?
**AUSTRALIA**

The Commonwealth Government favours a recommendation.

**CANADA**

*Nova Scotia.*

The reply is in the affirmative.

**GREECE**

The Greek Government is in favour of a Draft Convention on this subject.

**ITALY**

The Italian Government is in favour of the adoption of a Recommendation to the effect that any supplier or installer of power-driven machinery within a country should be responsible, without prejudice to the responsibility of the employer using such machinery, for seeing that the safety measures laid down in national laws and regulations for such machinery are complied with. This responsibility should, however, be limited to the case of safety appliances forming part of the machinery.

**NEW ZEALAND**

In New Zealand all boilers and machinery over 1 h.p. are under annual inspection by Departmental Officers. With regard to machinery guarding, the Marine Department finds it difficult to lay down any detailed instructions such as manufacturers would be required to follow because of the multiplicity of classes of machinery, the different purposes to which it is put, and the varying method or circumstance of installation and location. Beyond laying down general principles the guarding necessary is determined by the Inspector when the machine is in position.
Doubtless there are many classes of machinery where guarding could be standardised. For instance in New Zealand it is now required that plans and specifications of lifts and boilers should be first submitted for approval to the Marine Department, and the investigation of course covers safety requirements. Under previous practice lifts and boilers were manufactured first, and inspected afterwards, and it was not infrequently found that alterations and additions were necessary.

Under such a system makers of standard classes of machinery could submit plans of machinery and guarding or safety appliances for approval which would stand until variations were made in manufacture.

In principle, the proposal is undoubtedly desirable, and would be, as has been found to be the case in New Zealand, of advantage to manufacturers in that they know at the outset exactly what is required of them instead of having to make alterations afterwards to comply with requirements. In New Zealand, there is a legal obligation on both the seller and purchaser of boilers and machinery to notify the Department so that prompt inspection may be made in order that any necessary guarding may be determined.

**SOUTH AFRICA**

It is considered desirable that there should be an international code of safety regulations which would cover cases of power-driven machinery. It is doubtful, however, whether it would be possible or desirable to place responsibility primarily or altogether upon manufacturers of machinery who ought not to be held responsible for faults in assembling or omissions to incorporate safety devices which may not be an integral part of the machinery supplied. There is much to be said, therefore, for placing responsibility upon the user of the machinery who will thus be compelled, when making a contract with a manufacturer, to ensure the provision of proper safeguards.

Whatever principle is adopted, it is considered that a draft Convention would be more effective than a Recommendation. Any such Convention should be designed on broad lines which, while imposing a principle, would not restrict the expression of local or national practices conforming therewith.
II.

TEXTS OF TWO DRAFT RECOMMENDATIONS
A PROPOSED DRAFT CONVENTION
AND A DRAFT RESOLUTION*

DRAFT RECOMMENDATION CONCERNING THE PREVENTION
OF INDUSTRIAL ACCIDENTS.

Whereas the protection of the workers against injury arising out of their employment is instanced by the Preamble to Part XIII of the Treaty of Versailles and to the corresponding Parts of the other Treaties of Peace as one of the improvements in industrial conditions which are urgently required;

Whereas industrial accidents not only cause suffering and distress among the workers and their families, but also represent an important material loss to society in general;

Whereas the International Labour Conference in 1923 adopted a Recommendation concerning the general principles for the organisation of systems of inspection, in which it is laid down inter alia that inspection, in order to become progressively more effective, "should be increasingly directed towards securing the adoption of the most suitable safety methods for preventing accidents and diseases with a view to rendering work less dangerous, more healthy, and even less exhausting, by the intelligent understanding, education and co-operation of all concerned";

Whereas it is desirable that those measures and methods which experience in the various countries has shown to be most effective in enabling the number of

* These drafts, which were given at the end of the first Blue Report on the present item on the Agenda of the Conference, are reproduced here for the reasons given in the Preliminary Note to the present Supplementary Report.
accidents to be reduced and their gravity mitigated should be put on record for the mutual advantage of the Members;

*Whereas* a Resolution was adopted at the 1928 Session of the International Labour Conference in which the Conference declared its opinion that the time had come to attempt to reach a higher standard of safety by the development of new methods and that the greatest advance could be made on the lines of the Safety First Movement, although it could not supersede the action of the State in prescribing and enforcing regulations for the prevention of accidents;

*Considering* that it is of the highest importance that all persons or bodies, including employers, workers, Governments and the general public, should use their best endeavours and every means in their power to help to prevent industrial accidents:

*The General Conference recommends* that each Member of the International Labour Organisation take the following principles and rules into consideration:

I.

(1) In view of the fact that it is of primary importance for the prevention of accidents that their causes should be ascertained, and that methods of counteracting these causes should be discovered, each Member should arrange for systematic research into these problems, to be undertaken by Government institutions or by institutions or committees set up by individual branches of industry or by both classes of institutions working in co-operation.

(2) The industrial institutions and committees referred to in the previous paragraph should include representatives of employers and workers and of the competent inspection services, and, where considered desirable, of technical bodies and societies, and of insurance institutions and companies.

(3) Since it is essential for the furtherance of accident prevention that the results of the research referred to
in paragraph (1) should be made known, and since it is also desirable that the International Labour Office should be in possession of the necessary information to enable its work in this sphere to be extended, the more important results of the research undertaken should be communicated to the International Labour Office, which will deal with them in its publications.

(4) The States Members should also communicate to the International Labour Office all available statistics on industrial accidents in their respective countries. They should also, with a view to the subsequent preparation of a Draft Convention, keep in touch with the International Labour Office in compiling and developing their industrial accident statistics, with a view to arriving at uniform bases which would as far as possible allow of a comparative study of the statistics of the different countries.

(5) The researches into accident prevention mentioned in paragraph (1) above should be concerned not only with the material conditions in factories, workshops and other workplaces, but also with the various factors which affect safety in such places and which are included in the phrase "the human factor", for example:—

Effect of age and sex of workers; distribution and limitation of hours of work; fatigue, hygiene, lighting, temperature and ventilation of workplaces; temperament, physical condition, and skill of the worker; methods of organising work; attitude and movements of the worker; systems of wage payment; holidays; weather conditions, etc.

II.

(6) In view of the satisfactory results which experience in different countries has shown to follow from cooperation between all parties interested in the prevention of industrial accidents, particularly between employers and workers, it is essential that the Members should do all in their power to develop and encourage such cooperation, as recommended in the Recommendation on
systems of inspection adopted in 1923. This co-operation might be effected through any of the following means: the creation of standing district or national committees on which the various interested parties are represented; conferences of employers' and workers' representatives in particular industries together with Government inspectors; the creation of works' councils, or by such other means as may be found best suited to the requirements of particular industries or individual countries.

(7) In order that the worker's safety sense may not become blunted in daily contact with danger, the Members should do all in their power to maintain or reawaken the interest of the workers in safety problems by means of lectures, cinematograph films, visits to other industrial establishments, the creation of safety museums or exhibitions, and by such other means as they may find most appropriate.

(8) In view of the fact that the workers, by their conduct in the factory, can and should contribute to a large extent to the success of protective measures, the workers' organisations should do all in their power to co-operate in the education of their members in order to safeguard them from industrial accidents. Government departments might participate in this work of education by issuing publications on safety to the workers' organisations for distribution to the workers as well as by the other methods referred to in paragraph 7.

(9) In view of the importance of the work of education referred to in the preceding paragraph, which must rest on a solid foundation, the Members should arrange for preliminary instruction in first-aid hygiene to be given in elementary and secondary schools, as well as in the elements of accident prevention in general. More advanced instruction in accident prevention should be given in vocational schools of all grades, where the importance of the subject both from the economic and moral standpoints should be impressed upon the pupils.

(10) Since the suitability of the worker for his work and the interest which he takes in his work are factors of primary importance for the promotion of safety, it is essential that the Members should encourage scientific
research into the best methods of vocational guidance and selection and their practical application.

(11) In view of the great value of immediate first-aid treatment in lessening the gravity of the consequences of accidents, it is highly desirable that first-aid by properly trained persons should be given in undertakings generally as well as medical treatment in the larger undertakings. Arrangements should also be made for providing ambulance services for the rapid transport of injured persons to hospital or to their homes.

III.

(12) As all methods of furthering accident prevention must necessarily rest on a basis of legal provisions, the Conference recommends that each Member should prescribe by law the measures required to ensure a minimum standard of safety.

(13) It should be a rule of national laws or regulations that it is the duty of the employer to equip and manage his undertaking in such a way that the workers are adequately protected, regard being had to the nature of the undertaking and the state of technical progress, as well as to see that the workers in his employment are instructed as to the dangers of their occupation, if any, and in the measures to be observed by them in order to avoid accidents.

(14) It is in general desirable that plans for the construction or important alteration of industrial undertakings should be submitted, before the work is taken in hand, to the inspection service or other competent authority in the matter, in order that it may be ascertained whether the plans are such as to satisfy the requirements prescribed for the prevention of industrial accidents.

(15) Officials of the inspection service or other body responsible for supervising the enforcement of the laws and regulations concerning the protection of workers against accidents should be empowered to give orders in the individual case to the employer as to the steps to be
taken by him to fulfil his obligations, subject to a right of appeal to a higher administrative authority or to arbitration.

In case of imminent danger the supervising authority should be empowered to require immediate compliance with the orders, notwithstanding the right of appeal.

(16) In view of the fact that an additional inducement is offered to employers to adopt all possible safety measures in their undertakings if they obtain thereby a reduction in the amount of the premium which they pay for insurance against accidents to their work-people, State-administered accident insurance institutions should be required, or at least empowered, to take into account in the fixing of premiums the measures taken in the various undertakings for the protection of the workers.

(17) Accident insurance institutions and companies, being directly interested from the material standpoint in diminishing the number of accidents, should co-operate in the work of accident prevention by such means as the following: communication of information on causes of accidents to the inspection service or other supervising authorities concerned; co-operation in the institutions and committees referred to in paragraph 2 and in the Safety First Movement in general; advances to employers for the adoption or improvement of safety appliances; the award of prizes to workmen, engineers and others who, by their inventions or ideas, contribute substantially to the avoidance of accidents; propaganda among employers and the public; advice on safety measures, etc.

(18) In view of the importance of the conduct of the worker alluded to above (paragraph 8) in connection with accident prevention, it should be a rule of national laws or regulations that it is the duty of the worker to refrain from removing safety devices or preventing them from operating while the machinery is running, and generally to comply with the regulations on accident prevention.

(19) National laws should provide for the consultation of the workers before regulations accident prevention are issued by the competent authorities, and for taking their views into account.
(20) Legal provision should be made for associating the workers in the work of supervising the observance of the safety regulations in the various undertakings, preferably under conditions to be fixed by agreement between employers and workers, or by any of the following means: appointment of workers to positions in the official inspection service; regulations authorising the workers to call for a visit from an official of the inspection service or other competent body when they consider such a course desirable, or requiring the employer to give workers or their delegates an opportunity of seeing the inspector when he is visiting the undertaking; safety committees including workers' representatives for supervising the enforcement of the regulations; or in any other manner which will ensure that the participation of the workers is effected.

**PROPOSED DRAFT CONVENTION CONCERNING THE MARKING OF THE WEIGHT ON HEAVY PACKAGES TRANSPORTED BY VESSELS.**

Any package or object of one thousand kilograms (one metric ton) or more gross weight consigned within the territory of any Member which ratifies this Convention for transport by sea, river or inland waterway shall have had its gross weight plainly, legibly and durably marked upon it on the outside before it has to be loaded on a ship or vessel.

It is left to national laws or regulations to determine whether the responsibility for having the weight marked as aforesaid shall fall on the consignor or on some other person or body.

**DRAFT RECOMMENDATION CONCERNING RESPONSIBILITY FOR THE PROTECTION OF POWER-DRIVEN MACHINERY.**

(1) In order more effectively to ensure, in the interests of the safety of the workers, that the requirements prescribed by national laws or regulations for the protection of power-driven machinery used in the country concerned are properly complied with, and
Without prejudice to the responsibility which should in any case rest and remain on the employer for seeing that any machinery used in his undertaking is protected in accordance with national laws or regulations,

Each Member should adopt and apply to as great an extent as possible the principle that it shall be illegal for any person within its territory to supply or instal any machine intended to be driven by mechanical power and to be used within the territory which does not comply with the requirements prescribed by the national laws or regulations for the protection of machines of that type.

(2) Each Member should keep the International Labour Office informed of the measures taken by it to put the above-mentioned principle into operation and of the results of its application.

**Draft Resolution.**

The General Conference of the Members of the International Labour Organisation,

Having adopted a Recommendation concerning the prevention of industrial accidents which in paragraph (4) recommends the Members to keep in touch with the International Labour Office in compiling and developing their industrial accident statistics, with a view to arriving at uniform bases which would allow of a comparative study of the statistics of the different countries, and

Considering that, in view of its competence, its composition and the work it has already done in connection with industrial accident statistics, the International Conference of Labour Statisticians which is convened from time to time under the auspices of the International Labour Office would be the best medium of liaison between the Members and the Office for the above-mentioned purposes,

Invites the International Conference of Labour Statisticians to consider at an early meeting the questions raised by paragraph (4) of the above-mentioned Recommendation, and, in particular, the questions whether, and what, uniform bases can be fixed for the compilation of industrial accident statistics in the different countries, and for which of the more dangerous industries such statistics should first be compiled in each country.