

INTERNATIONAL
LABOUR ORGANISATION

COAL MINES COMMITTEE
THIRD SESSION

1949

GENERAL REPORT



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International Labour Organisation

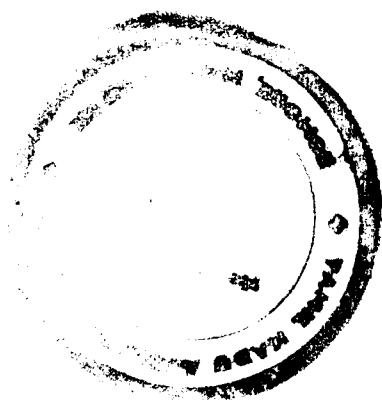
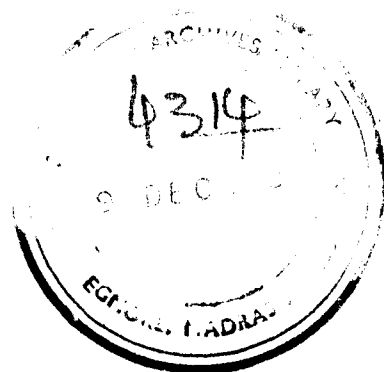
COAL MINES COMMITTEE

THIRD SESSION
PITTSBURGH, 1949

GENERAL REPORT

First Item on the Agenda

GENEVA
International Labour Office
1949



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INTRODUCTION

At its 107th Session (Geneva, December 1948), the Governing Body decided that the Third Session of the Coal Mines Committee should be held at Pittsburgh (United States) from 19 April 1949, under the chairmanship of Mr. Eli-Léon Troclet, the Belgian Minister of Labour and Social Welfare, and should last about ten days.

Previously, during its 105th Session (San Francisco, June 1948), the Governing Body had decided that the agenda of the Third Session of the Committee should include the following four points : (1) General Report; (2) the protection of young workers employed underground in coal mines; (3) the retraining of physically incapacitated miners; and (4) hours of work in coal mines. On each of these points in the agenda, the Office has prepared a special report for the Committee's information.

As in the case of the previous session, the Governing Body decided that the General Report—which was the first item on the agenda—should deal with the following items : (a) measures taken by the Office to carry out the studies and enquiries suggested by the Committee; (b) measures taken in the different countries to give effect to the decisions of the Second Session of the Committee; and (c) recent events and progress in the coal mining industry.

The present report, which consists of three chapters, has been drawn up accordingly. Chapter I is divided into three separate sections. The first contains an account of the activities of the International Labour Office in the period between the Second and Third Sessions of the Committee, first and mainly in connection with coal mining, in accordance with the resolutions of the Committee, but also on a general level, whenever the coal industry has been or may be involved in the course of the Office's activities in general. In the second section are set forth the various steps taken by the Governments and by the industry in pursuance of the Committee's conclusions. Finally, the third section contains a survey enabling the Committee to appraise the scope of the measures taken since 1945, to obtain a clear notion of the results achieved, and to establish on the basis of these its future line of action.

Chapter II consists of two sections. The first contains a comparative study of pensions schemes for miners, undertaken by the Office at the Committee's request. The second is devoted to an analysis of the special miners' pensions scheme which has just come into force in the United States.

Chapter III is also divided into two sections. In the first, an attempt has been made to draw up a balance-sheet covering the past two years, and this, while not complete, is at any rate sufficiently detailed to provide the Committee with a comprehensive view of the development of the industry throughout the world. The second deals with the coal mining industry in Germany, for it was felt that, in view of events following upon the cessation of hostilities, this was sufficiently important at present to justify a separate study. To facilitate an understanding of this section, it seemed that a map of present-day Germany, showing the four occupation zones, might be most useful, and such a map will accordingly be found at the end of the report.

CHAPTER I

MEASURES TAKEN TO GIVE EFFECT TO THE CONCLUSIONS ADOPTED BY THE COMMITTEE AT ITS SECOND SESSION

I. Action taken by the International Labour Office

The Coal Mines Committee of the International Labour Organisation, at its Second Session, held at Geneva from 24 April to 3 May 1947, dealt with the two questions placed on its agenda by the Governing Body, namely, the study of the General Report prepared by the Office, and the utilisation of the resources of the coal mining industry, from the economic, social and technical standpoints.

When the Committee concluded its work, it embodied its conclusions in the form of eight resolutions and five requests for enquiries or studies to be undertaken by the International Labour Office, so that at a later date the Committee might reach decisions on specific questions with full knowledge of the facts.

The text of these resolutions and requests for enquiries and studies have been published in full in the *Record of the Second Session*¹; only the titles will be given here. The resolutions were the following :

I. Resolution concerning the Regulation of Recruitment in Coal Mines (Part I, General Considerations; Part II, National Manpower; Part III, Foreign Manpower Recruited on the Territory of Sovereign States; Part IV, Refugees and Displaced Persons; Part V, Free German Workers and Prisoners of War).

II. Resolution concerning Priority for Recruitment for the Coal Mining Industry.

III. Resolution concerning the Employment of Prisoners of War in Coal Mines.

IV. Resolution concerning Apprenticeship and Vocational Training in Coal Mines (Part I, General Considerations; Part II,

¹ International Labour Organisation, Coal Mines Committee, *Record of the Second Session (Geneva, April 1947)* (Geneva, 1948).

Apprenticeship; Part III, Accelerated Vocational Training; Part IV, Vocational Training; Part V, Training of Supervisory Staff; Part VI, Retraining; Part VII, General Provisions).

V. Resolution concerning General Problems of Miners' Housing (Part I, General Considerations; Part II, Construction Programmes and Particulars of Accommodation; Part III, Acquisition of Individual Property; Part IV, General Provisions).

VI. Resolution concerning Safety and Health in Coal Mines.

VII. Resolution concerning Appropriate Measures for Safeguarding the Economic Balance of the Coal Industry with a View to the Protection of the Social Rights of Mine Workers.

VIII. Resolution concerning the Application of the Miners' Charter in Economically Underdeveloped Countries.

The enquiries and studies which the Committee wished the Office to undertake were concerned with the following subjects:

- A. The Retraining of Physically Incapacitated Miners.
- B. The Protection of Young Workers Employed Underground in Coal Mines.
- C. Hours of Work in Coal Mines.
- D. The Determination of a Social Minimum for Mine Workers.
- E. A Comparative Study of Invalidity and Old-Age Pensions Schemes with a View to Establishing the Rights of Immigrant Workers.

The conclusions of the Committee, accompanied by a circumstantial report, were submitted to the Governing Body of the Office, which considered them during its 102nd Session (Geneva, June-July 1947).

RESOLUTIONS OF THE COMMITTEE

Resolution I, concerning the regulation of recruitment in coal mines, and particularly Part IV, Section A, engaged the Governing Body's special attention. The Committee had itself debated Part IV at great length. It deals with the recruitment of refugees and displaced persons, and Section A was adopted by 17 votes only, with 16 abstentions. The French Government representative on the Governing Body felt that a formula for Part IV could be found which would secure the agreement of hitherto divergent

viewpoints. He therefore proposed to the Governing Body a new wording of the controversial points in Part IV; this wording met with the approval of the Polish Government representative, who was the person chiefly concerned in the matter. Mr. Troclet, the Belgian Government representative, and Chairman of the Coal Mines Committee, also approved it, while observing that he did so without pledging the Committee, but that he was convinced that the present wording would have secured its unanimous approval, had it been submitted while the Committee was in session.

Despite the agreement so achieved between the representatives of the Governments of France and Poland and the Chairman of the Committee, the Governing Body did not feel called upon to amend the text adopted by the Committee. It instructed the Director-General to communicate this text to the Governments, at the same time informing them of the new text submitted by the French Government representative.

The Director-General accordingly sent the following communication to the Governments¹:

With reference to the resolution concerning the regulation of recruitment in coal mines, the French Government representative on the Governing Body suggested an alternative text of paragraphs 24, 25, 32 and 33 of Part IV of the resolution. In the course of the discussion to which this suggestion gave rise in the Governing Body, the Polish Government representative agreed to this text. The Belgian Government representative, who had been Chairman of the Committee, also indicated that he accepted the proposed text. Without taking any decision on the substance of this new text, the Governing Body authorised me to circulate it together with the original text of the resolution. You will find attached hereto both the original text as adopted by the Committee and the alternative text proposed, set out in parallel columns.

The two texts were as follows:

<i>Committee's Text</i>	<i>Proposed Text</i>
PART IV: REFUGEES AND DIS- PLACED PERSONS	PART IV: REFUGEES AND DIS- PLACED PERSONS
A. <i>Negotiations between Govern- ments and Competent Authori- ties.</i>	A. <i>Agreements concerning Re- cruitment.</i>

24. The negotiations for the recruitment of manpower for the international treaty of a general

¹ Letter from the Director-General to the Governments, dated 4 September 1947.

coal mines from among refugees and displaced persons, as long as there is no international treaty of a general character in their regard, should be conducted with the authorities exercising control over the camps or settlements where such persons are assembled, in co-operation with the International Labour Office and other competent inter-governmental organisations and in consultation with the employers' and workers' organisations.

25. The recruitment operations, including the methods of prospecting, screening, medical examination and physical and vocational selection, should be regulated by the Governments concerned and the competent authorities referred to above, as far as possible with the aid of the inter-governmental agencies responsible for dealing with refugees and displaced persons.

32. The contract should define the guarantees agreed on, and accorded to the refugees or displaced persons concerned, in virtue of the arrangements between the country of reception and the authorities responsible for the camps or settlements of such refugees or displaced persons.

33. The individual contract need not specify the general conditions of engagement and employment in so far as these are fixed by arrangements concluded between the Governments and competent authorities specified in paragraph 24, if the contract embodies reference to the relevant agreements.

character in regard to the recruitment of manpower for the coal mines from among refugees and displaced persons, any agreement concluded in respect of the recruitment of this type of manpower for coal mines should have regard to the methods and include the provisions laid down in Part IV of the present resolution.

(2) It is recommended that, when negotiating such agreements the Governments concerned should consult the employers' and workers' organisations and should secure the co-operation of the International Labour Office and other competent inter-governmental organisations.

25. The recruitment operations, including the methods of prospecting, screening, medical examination and physical and vocational selection, should be regulated by *the contracting parties*, as far as possible with the aid of the inter-governmental agencies responsible for dealing with refugees and displaced persons.

32. The contract should define the guarantees agreed on, and accorded to the refugees or displaced persons concerned, in virtue of the arrangements between the country of reception and the *other contracting party*.¹

33. The individual contract need not specify the general conditions of engagement and employment in so far as these are fixed by *the general agreements signed by the Government of the country of reception*, if the contract embodies reference to the relevant agreements.

¹ The Netherlands Minister for Social Affairs, in a letter to the Director-General dated 11 December 1947, asked for an elucidation of these texts: "Now that in the proposed text of Section 32", writes the Minister, "the words 'authorities responsible for the camps or settlements of such refugees

The Governing Body further authorised the Director-General to communicate to the Governments resolutions Nos. I, II, III, IV, V, VII and VIII cited above, and requested him to draw their attention to them, with a view to any action which they might consider appropriate. This communication was sent by the Director-General on 4 September 1947.

Resolution VI, concerning safety and health in coal mines, did not require to be transmitted to the Governments, since in the first place it called for action by the Office. In this resolution, the Committee requested the Governing Body first, to convene at the earliest possible date a tripartite technical conference to discuss and adopt a Model Code of Safety Regulations for Underground Work in Coal Mines; and second, to instruct the Office to undertake the collection and permanent co-ordination of all information available relating to the protection of underground mine workers.

With regard to the tripartite technical conference, the Govern-

or displaced persons,' have been replaced by 'the other contracting party' it seems to me that it is not clear what should be understood by 'the other contracting party'. I should therefore be most grateful if you could kindly let me know the exact meaning of the proposed text". The Director-General replied to the Netherlands Minister for Social Affairs as follows: "First of all, I venture to point out that, while the Governing Body has authorised me to communicate to you the text proposed by the French Government representative on the Governing Body with reference to the text adopted by the Coal Mines Committee, the Governing Body has not itself expressed its views as to the substance.

"As you recall in your letter, the Sub-Committee on Recruitment, and subsequently also the Coal Mines Committee itself, made a special effort to define the contracting parties in agreements dealing with the recruitment of refugees and displaced persons. It is in fact the very precision of the definition drawn up by the Coal Mines Committee which led to certain difficulties and to the abstention of some of the members of the Committee on the vote on Part IV of the resolution concerning the regulation of recruitment.

"In the new text proposed by the French Government representative on the Governing Body, approved by the Polish Government representative and accepted by the Belgian Government representative who was Chairman of the Committee, only one of the contracting parties remains clearly defined, namely, the country of reception, while the other, or others, are no longer so defined. The drafters of this new text adopted the view that the Committee's first objective should be to ensure certain safeguards for refugees and displaced persons recruited for work in coal mines, while leaving to the Governments concerned the responsibility of negotiating with such authorities as seem to them qualified from every point of view to discuss the safeguards offered and to see that they are respected once an agreement is concluded.

"Therefore, in reply to your question concerning paragraph 32, I feel that in the proposed text 'the other contracting party' should be interpreted as meaning the authority which the Government concerned in the recruitment of refugees and displaced persons has itself recognised as being the best qualified to undertake negotiations and to conclude a valid agreement in that connection".

ing Body decided that this should be held in the course of the year 1949; and the Office is making the necessary preparations to that end. To assist the Office in the completion of the draft Model Code, the Governing Body has reconstituted the Committee of Experts which was engaged upon this task when war broke out in 1939.

The new Committee of Experts will meet at Geneva on 31 January 1949. It will consist of nine members. The Czechoslovak Government has not yet appointed its experts, but the following eight members have already been designated by their Governments:

Mr. N. BARRACLOUGH, Chief Inspector of Mines, India.
 Mr. A. N. BRYAN, J.P., B.Sc., F.R.S.E., H.M. Chief Inspector of Mines, Ministry of Fuel and Power, United Kingdom.
 Mr. John CRAWFORD, Chief Inspector of Mines of Alberta, Canada.
 Mr. C. F. DAVIS, Director of the Safety Division, United Mine Workers of America, U.S.A.
 Mr. P. de HAART, Deputy Inspector-General of Mines, Ministry of Social Affairs, Netherlands.
 Mr. Stanislas NIZINSKI, Engineer, Poland.
 Mr. Georges PAQUES, Chief Inspector, Director of Mines, Belgium.
 Mr. LE SUEUR, Inspector-General of Mines, France.

The first volume of the report entitled *Safety Provisions for Underground Work in Coal Mines*, which contains material on the law and practice relating to underground safety in the coal mines of some of the principal coal-producing countries, compiled by the Office for the tripartite technical conference in 1939, is being brought up to date, and a supplement will be published in time for the 1949 conference. It is planned to include in the report a general survey of progress in underground safety in the principal coal-producing countries, as well as an extensive bibliography of recent safety literature published in those countries. It should, however, be mentioned that information as to what has happened in Germany and the U.S.S.R. since 1939 in the field of coal mining safety is practically impossible to obtain, and that the report now being brought up to date by the Office may be lacking in this respect.

With regard to the collection and permanent co-ordination of information relating to the safety of underground workers, it may be said that the Office has been engaged on this task since its foundation. The Office possesses detailed records of all the coal mine safety legislation and literature of the principal coal-producing countries. It keeps itself constantly informed of the progress of legislation and other safety activities in all the coal-

producing countries. A vast amount of information on these matters has been published in the *Industrial Safety Survey* since 1925; in fact, an outline of the recent history of safety in coal mining is to be found in the pages of the Survey.

Resolution VII, concerning appropriate measures for safeguarding the economic balance of the coal industry with a view to the protection of the social rights of mineworkers, was communicated not only to the Governments, but also, with the authorisation of the Governing Body, to the Secretary-General of the United Nations, for the information of the Economic and Social Council and the Economic Commission for Europe, and to the European Coal Organisation. The Secretary-General of the United Nations communicated the resolution to the Members of the Economic and Social Council. The Secretary-General of the European Coal Organisation communicated the resolution to the States Members of the Organisation. Below, in Section B of the present Chapter, in connection with the activities of the European Coal Organisation, and those of its successor, the Coal Division of the Economic Commission for Europe, a statement will be found of the attempts made to ensure a certain economic balance for the coal industry; and the effects of this cannot fail to tally with the Committee's efforts in regard to the social aspect.

The Governing Body, in deference to the Committee's wishes, authorised the Director-General to submit to the Preparatory Asian Regional Conference of the International Labour Organisation resolution VIII concerning the application of the Miners' Charter in economically underdeveloped countries. The Conference, which was held from 27 October to 8 November 1947, at New Delhi, India, thus had that resolution before it. The Office also recommended it to the attention of the Members taking part, in one of the reports prepared for the Conference.¹

The Conference showed a definite interest in the communication transmitted to it by the Coal Mines Committee. At the conclusion of its discussion as to the best means of ensuring the effective application of the measures advocated by the various authorities of the International Labour Organisation the Conference made the following recommendation²:

¹ Preparatory Asian Regional Conference of the International Labour Organisation, New Delhi, 1947, Report II: *Labour Policy in General, including the Enforcement of Labour Measures* (Geneva, 1947), p. 228.

² Cf. I.L.O.: *Official Bulletin*, Vol. XXX, No. 3, 15 November 1947, p. 162, "Resolution concerning tripartite organisation and other appropriate arrangements".

1. The Governments should give consideration to the setting up in their countries of tripartite organisations, with committees to deal with special problems, consisting of representatives of Governments, employers and workers, or other appropriate arrangements—

- (a) to promote appropriate measures for—
 - (i) raising the standard of living of workers; providing them proper and fair conditions of life and work, social security, full opportunity for their economic and social welfare and social justice;
 - (ii) increasing production and output in industry;
- (b) to advise concerning measures necessary to implement decisions adopted by the International and Regional Conferences, and such of the resolutions adopted by the industrial committees as are communicated to the Governments by the decisions of the Governing Body; and formulation of recommendations concerning such other questions as may fall within their competence or may be referred to them.

For the information of the Committee, the Office on 20 May 1948 asked the Governments concerned to supply particulars concerning the action which they had deemed appropriate as a result of the communication drawing their attention to the resolutions of the Committee. In the second section of the present chapter will be found the information supplied by the Governments, together with a statement of measures taken by the industry in connection with the Committee's recommendations.

ENQUIRIES AND STUDIES REQUESTED BY THE COMMITTEE

The Governing Body authorised the Director-General to undertake enquiries and to prepare studies which the Committee felt would assist it in its work. These enquiries and studies dealt with five questions. Later, at its 105th Session (San Francisco, June-July 1948), three of these—on account of their importance or urgency for the coal industry—were selected for inclusion in the agenda of the Third Session of the Committee. They deal with: (1) the protection of young workers employed underground in coal mines; (2) the retraining of physically incapacitated miners; (3) hours of work in coal mines.

The Office has prepared a special report on each question, and these reports will be submitted to the Committee. It is therefore unnecessary to give detailed explanations here of the methods used by the Office to carry out these enquiries and studies.

In Chapter II will be found a comparative study of invalidity and old-age pensions schemes with a view to establishing the rights of immigrant workers, as requested by the Committee. The Office hopes that it will meet the wishes of the Committee,

which was anxious to have before it a general picture of the different pensions schemes in force.

Among the studies requested by the Committee there remains the one dealing with the determination of a social minimum for mineworkers, which the Office is unfortunately unable to include in the present General Report for the Committee's Third Session.¹ The Committee had expressed the opinion that the object of the Miners' Charter "would be more readily attained if the sum of the social advantages accorded to mineworkers in each country were arithmetically calculated in relation to a common basis of comparison selected from another essential occupation, with a view to determining, after examination, the total social minimum to which mineworkers are entitled"; and the Office was accordingly invited to draw up the necessary tables.

The Office has devoted much attention to this matter. It has drawn up a programme of work which will presumably answer the Committee's requirements. But during the past two years the position in regard to most of the countries which are members of the Committee has been an extremely fluid one, which has made it difficult—or indeed impossible—to establish a basis for comparison with another essential industry, or to fix the sum total of the social benefits accorded to miners, arithmetically calculated or otherwise. Until the very time when the present report was nearing completion, adjustments were being made in the benefits accorded to the miners of one country or another, and the essential industries have also undergone changes in regard to the social conditions of their workers. In the circumstances, any study which the Office may be in a position to submit to the Committee can only be of an informative character.

SOME ASPECTS OF THE I.L.O.'S GENERAL ACTIVITIES WHICH MIGHT AFFECT THE COAL MINING INDUSTRY

It would be useful now to provide the Committee with information on certain aspects of the general activities of the Office which, while not strictly confined to the coal mining industry, nevertheless concern that industry.

Labour and Migratory Movements

In view of a situation which called for an immediate solution,

¹ The Office will make every effort to submit this study to the Committee when it meets, in the form of a mimeographed report.

the Office submitted to the Second Session of the Committee a draft text dealing with the policy to be pursued by producer countries with regard to the recruitment of labour for coal mines. Most producer countries had already undertaken systematic recruitment campaigns on a national scale, and some of them had by this time opened negotiations for the recruitment of foreign workers, including refugees and displaced persons.

The Office nevertheless did not fail to point out to the Coal Mines Committee that the action which it had undertaken ran along similar lines, but on a much wider scale. At that time, the Permanent Migration Committee was consulting the Governments with a view to the preparation of a standard agreement. In February 1948, it held a session in the course of which the following subjects were discussed: (a) proposals for revision of the Migration for Employment Convention, 1939, and related Recommendations; (b) a draft model migration agreement; (c) technical selection and training of migrants; and (d) co-operation of the International Labour Organisation in measures for the co-ordination of international responsibilities in the field of migration.

On items (a) and (b), the work of the Permanent Migration Committee is now sufficiently advanced to justify the Governing Body's decision that that Committee should meet again in January 1949 in order finally to settle the wording of the texts which will be submitted to the International Labour Conference in June 1949, the agenda of which includes an item on the revision of the Migration for Employment Convention, 1939. Before referring to the practical action undertaken on items (c) and (d), the attention of the Coal Mines Committee, which has a particular interest in the matter, should be drawn to a resolution adopted by the Permanent Migration Committee concerning refugees and displaced persons, which recommended:

1. That the Members of the International Labour Organisation concerned should be invited to report to the Organisation on the conditions of labour of displaced persons who have settled in their respective countries and on the extent to which they have applied up to now in respect of these persons the Convention and the Recommendations of 1939 concerning the recruitment, placing and conditions of labour of migrants for employment; and

2. That the competent bodies of the United Nations be invited to adopt all measures likely to hasten the solution of the problem of displaced persons, in accordance with the resolutions adopted by the Assembly of the United Nations.

The problems of migration, always extremely complex, were

further complicated as a result of the disturbances and movements of populations which followed the war. These are not all within the purview of the International Labour Organisation, or at any rate not in all their aspects. Therefore the need for co-ordination of the measures required made itself felt, and the Office accordingly arranged for exchanges of views with other international organisations. During the Sixth Session of the Administrative Co-ordination Committee, held on 12 November 1948, the Director-General of the I.L.O. invited the Secretary-General of the United Nations and the heads of the other international specialised agencies concerned to a meeting early in 1949, to consider the International Labour Organisation's programme of action in the matter of manpower, migration and technical training.

In connection with this aspect of the Office's activities, attention should also be drawn to the Manpower Conference held at Rome in January 1948. By the terms of certain conclusions reached in the course of this Conference, the Office was entrusted with similar work to that described above. This Conference was organised as a result of a resolution of the Organisation for European Economic Co-operation which has its headquarters in Paris and is responsible for the implementation of the Economic Reconstruction Programme (Marshall Plan). Its main object was to examine the situation from the standpoint of manpower, in order to promote a better utilisation of the available labour forces within the framework of European reconstruction programmes.

The Office took an active part in this Conference, and so did six countries which are members of the Coal Mines Committee, namely, Belgium, France, the Netherlands and the United Kingdom, as members; Turkey and the United States, as observers.

As a result of the Conference, a Permanent Co-ordination Committee for European Migratory Movements was set up, with headquarters in Rome, the work of which will be to achieve the immediate and practical aims connected with movements of European manpower, and in this field it will have the co-operation of the Office. Similarly, the Office has now undertaken enquiries on manpower surpluses and deficits, the results of which it communicates once a quarter to the countries concerned and to the International Refugee Organisation.

Finally, also as a result of a request of the Organisation for European Economic Co-operation, the Permanent Migration Committee of the I.L.O. has been instructed to discuss what steps the I.L.O. could take to assist in the migration and resettlement

of refugees and displaced persons with "specialist" qualifications, as well as other highly-qualified workers. This is all the more necessary because in one of its resolutions the Rome Conference stressed the fact that one of the chief obstacles to the development of migratory movements is the absence of technical qualifications among migrants.

Manpower and Vocational Training and Rehabilitation

The Coal Mines Committee which, since its First Session, held in London in December 1945, has emphasised the importance of manpower problems in the reconstruction of Europe, and has made every effort to find a solution to these problems, will express no surprise on finding that one of the first concerns of the United Nations Economic Commission for Europe was also the study of manpower problems. It established a Manpower Committee which studied the present situation in Europe and, after defining the problems awaiting solution, concluded that the International Labour Organisation should be requested to deal with these questions as a matter of the utmost urgency, in view of its experience and knowledge of the subject.

The practical and immediate action which the Governing Body immediately instructed the Office to take, within the framework of a general manpower programme, covered migratory movements as well as vocational training. This action is intended to lead to positive results which will constitute an important contribution on the part of the I.L.O. to the reconstruction of Europe. The Office has already begun work on a number of aspects. In addition to the preparation of articles and notes for its publications, it has lent assistance, in response to numerous requests for such assistance addressed to it by the Governments of certain countries or by various international organisations. Close co-operation has developed with the International Refugee Organisation for the revision of the classification of trades in use for the registration of refugees and displaced persons, and also to facilitate their selection for employment. An expert from the Office has advised the I.R.O. in connection with means for training refugees in I.R.O. camps, and a member of the staff of the Office co-operates with the I.R.O. in its efforts to solve the special problems arising in connection with the training and retraining of disabled refugees and displaced persons.

New tasks, originally undertaken in connection with an emer-

gency manpower programme for Europe, have in fact proved to be of world-wide interest. Thus, for example, the scope of the Documentation Centre and the special library dealing with vocational training questions, and also the bibliography on vocational guidance and training, are not confined to Europe.

The I.L.O.'s programme at present includes the following activities intended to promote vocational training, to facilitate the mobility of labour, to ensure a better utilisation of manpower resources and, to this end, to improve the employment services in the various countries of Europe :

(a) The Office is now acting as a centre for the regular and rapid exchange of information on training and retraining, and is building up a special library which contains a wide range of practical documentation on vocational training of all kinds and on the problems connected with organising and carrying out training schemes in the different countries, or for different industries and occupations. Although this documentation service was initiated primarily with the needs of the European region in mind, the material being collected is in fact world-wide in scope and will be equally useful to other regions. However, its location at Geneva, close to the headquarters of the Economic Commission for Europe, makes it particularly useful for Governments, organisations or individual persons working on European manpower problems.

(b) The Office is issuing a periodical annotated bibliography on vocational guidance and training. This bibliography, also, has been initiated as part of the European programme, but it includes information, as available, from all countries, and is being distributed to extra-European countries.

(c) The Office is preparing a series of national monographs on the systems of vocational training operating in selected countries.

(d) The Office has also begun the collection and exchange of information concerning manpower needs and surpluses in European countries (from the point of view of migration), and, in order to facilitate the necessary interchange of workers, a list of definitions and a classified list of the occupations concerned.

(e) The Office has begun work on the general classification and definition of occupations, using, in addition to the information collected from replies to questionnaires, existing definitions of occupations in a number of countries.

(f) The Office was authorised by the Governing Body to call

special meetings of experts, as might be necessary, to deal with questions arising out of the manpower programme. As a result, a meeting of experts has already been held in London, on 13 December 1948, to consider the question of occupational nomenclature with special reference to the problems of migration, the technical organisation of placement, and the recruitment and training of employment service staff.

The I.L.O. has established relations with the Economic Commission for Europe, the Organisation for European Economic Co-operation, and the International Co-ordination Committee for European Migratory Movements (E.M.I.C.O.), and provides guidance concerning the programme to be adopted as well as technical aid in finding a solution for European manpower problems.

The Office's activities in this field are not confined to European countries. Following a resolution adopted by the Preparatory Asian Regional Conference organised by the International Labour Organisation at New Delhi in October-November 1947, and a resolution of the Economic Commission for Asia and the Far East (which body forms a part of the Economic and Social Council of the United Nations), an I.L.O. expert travelled to Shanghai to carry out a preliminary investigation with a view to establishing practical ways of providing technical training for workers in those regions. The I.L.O. expert, who spent three months in the Far East, has already presented his report¹, which will be submitted to the Economic Commission for Asia and the Far East, at its next meeting, which is to take place in Australia in November 1949.

The Governing Body of the I.L.O. has, however, already decided to set up at Shanghai a field office for vocational training.

Furthermore, the I.L.O. has undertaken the preparation of a catalogue of existing films on vocational training, in order to place them at the disposal of Governments and of employers' and workers' organisations; the catalogue will indicate how the films can be obtained.

Finally, the Governing Body of the I.L.O. attaches so much importance to the work of the Organisation in connection with migratory movements and vocational training that it has set up two Committees—one for Europe and one for Asia—to lay down

¹ I.L.O.: *Training Problems in the Far East. Report on Technical and Vocational Training in the Far East, prepared for the International Labour Organisation and the United Nations Economic Commission for Asia and the Far East*, by Marguerite THIBERT (Geneva, 1948).

guiding principles for and to follow the development of the work in question.

Pneumoconiosis

The Committee is aware of the activities carried on by the Office for many years to combat pneumoconiosis. It will be interested to learn that the Governing Body has decided to convene an International Conference of Experts on Pneumoconiosis, to be held in Australia in the course of 1949. The Governing Body itself will be represented by a tripartite delegation, and it has invited the international organisations concerned to send observers.

The Conference will have to consider the present state of our knowledge of the pathogenesis, clinical picture and diagnosis of pneumoconiosis, as well as the preventive measures now in force against pneumoconiosis, whether medical, social, mechanical or technical. It will further arrange for an exchange of views concerning the possibility of defining minimum international standards in regard to compensation for disability caused by pneumoconiosis. To facilitate the work of the Conference with regard to the latter, the Office has undertaken an investigation into the provisions now in force in the different countries.

Welfare Services

At its 30th Session (Geneva, June-July 1947), the International Labour Conference discussed the organisation of welfare services in undertakings, considering that from a social standpoint it was desirable, and from the productivity standpoint profitable, to encourage the setting-up of appropriate services, installations and arrangements to meet the needs of the workers, such as canteens, rest and recreation rooms, sanitary installations, medical services, transport and accommodation facilities.

The Conference therefore adopted a Resolution¹ drawing attention to the importance of such action, to be taken in co-operation with representatives of the workers concerned, and under properly qualified management. To facilitate and support this action, the Office has undertaken to extend its previous studies, especially in connection with the administration and running of welfare services in undertakings. The Resolution further requests the Governing Body to consider placing this item

¹ I.L.O.: *Official Bulletin*, Vol. XXX, No. 1, 31 July 1947, p. 74, Resolution (No. IX) concerning welfare facilities for workers.

the agenda of an early session of the Conference and to refer to industrial committees the discussion of such aspects of the question as might give rise to special problems in particular industries.

The Coal Mines Committee has already discussed the organisation of welfare services at its previous sessions, but has not yet reached any decision in the matter. There is no doubt that in this field there are aspects peculiar to the coal mining industry, such as shower-baths and dressing-rooms, miners' housing, transport from dwelling place to work, to mention only a few. The Committee feels that this question, by comparison with others, is of particular and immediate urgency, it is fully justified in drawing the attention of the Governing Body to it.

Guaranteed Wage

The 31st Session of the International Labour Conference (San Francisco, June-July 1948), dealt with the question of wages and numerous related problems. One of the Resolutions adopted by the Conference calls for the attention of the Committee—namely, the one concerning the guaranteed wage.

In adopting this Resolution¹, the Conference took the view that it was “of the utmost importance to provide, wherever and whenever possible, steady employment and income for wage earners”. To achieve this aim, the Conference drew attention to “the desirability of progressively extending, by means of collective agreements, awards or national laws as appropriate, the application of the principle of a guaranteed wage to wage earners who are subject to temporary lay-off.”

The matter is an exceedingly complex one, if not in principle, at any rate in regard to the methods of application which a guaranteed wage implies, because the position differs considerably from one industry to another, and indeed in the same industry, and from one establishment to another, not to mention the effect of such a measure on the cost of the products. For these reasons the Conference felt it necessary, under present conditions, to invite the Governing Body to arrange for a study by the industrial committees “of methods of facilitating the progressive application of their respective industries of the principle of a guaranteed wage, including methods of eliminating temporary stoppages or fluctuations in plant operations and in employment”.

The Governing Body will therefore have to decide when it

¹ I.L.O.: *Official Bulletin*, Vol. XXXI, No. 1, 31 Aug. 1948, p. 38.

can suitably submit this question of the guaranteed wage to the industrial committees when drawing up their agenda, and any decision in this respect which may affect the coal mining industry will be communicated to the Committee.

Creation of a Committee on Industrial Committees

After reviewing the action taken by the Office to put into effect the Committee's conclusions, and its activities in the general field in which the coal mining industry plays its part, it would appear useful to inform the Committee of certain decisions taken by the Governing Body concerning the industrial committees themselves.

The setting-up of the Coal Mines Committee, in December 1945, was followed by the creation of seven other industrial committees, all of which—with two exceptions—have already held two sessions. All these committees have worked just as intensively as the Coal Mines Committee.

In the circumstances, the Governing Body, to which the conclusions reached by the industrial committees are submitted for consideration, soon found itself confronted with a fairly considerable number of recommendations, resolutions and memoranda upon which, to all intents and purposes, it could not give reasoned judgment during its periodical meetings, in the course of which it must consider the activities of the Office as a whole. Anxious not to delay consideration of the conclusions of the industrial committees, thereby diminishing their effectiveness and hindering their development, the Governing Body, at its 103rd Session (December 1947), set up a Committee on Industrial Committees, composed of nine members (three Government, three employers' and three workers' members). This Committee was instructed to make a preliminary study of the conclusions of the industrial committees with a view to their submission to the Governing Body; to review programmes for the future activities of the industrial committees; to submit to the Governing Body suggestions for the gradual establishment of a set procedure enabling the industrial committees fully to serve the purpose assigned to them; and lastly, to define the part which the industrial committees can play within the general framework of the International Labour Organisation.

Generally speaking, the Committee on Industrial Committees meets before the sessions of the Governing Body, so as to be able

to submit its proposals to the latter without delay. At its first meeting (March 1948), the Committee noted the positive elements in the activities of the industrial committees, and set out to find any inadequacies or weak points which might still exist in their functioning. The Committee has met several times since, and has had occasion to submit proposals to the Governing Body, to which the latter has always given careful consideration. It has sometimes modified or supplemented them, and has then taken its decision. One of the most important decisions taken by the Governing Body as a result of the new procedure, is that concerning the scope of the industrial committees, and this decision must be brought to the notice of the Coal Mines Committee. The scope of the activities of the industrial committees is defined as follows :

(a) The consideration of particular and practical problems of the industry with which the Committee is concerned.

(b) The consideration of general problems which have been decided by the International Labour Conference but only in so far as they affect the industry with which the Committee is concerned.

(c) Exceptionally, the consideration of problems which have not yet been finally dealt with by the Conference, but only in so far as they affect the industry with which the Committee is concerned.

In thus limiting the scope of the committees' activities the Governing Body is not intending to hinder their work, but rather to facilitate it by supplying them with the necessary directives to guide their activities in such a way as to make them as effective as possible for the benefit of their respective industries. Moreover, to this end the Governing Body at its 107th Session (Geneva, December 1948) adopted a document to serve as guidance to the industrial committees.

II. Measures taken by the Governments and the Industry

It would now seem advisable to consider the results achieved during the interval between the sessions of the Committee, arising from the recommendations and suggestions which it put forward during its Second Session. To give a complete picture of these results, it was felt that much else should be noted besides the measures taken by the Governments themselves. It is true that in most cases it rests with the Governments to take and put into effect certain measures, particularly at the present time. While it is quite normal, however, that all the decisions taken by the

Governments should be carried into effect by the industry, yet quite often the Governments do not necessarily require to take action to give administrative or legislative sanction to measures introduced into industry by the terms of agreements between the parties directly concerned, or simply on the instigation of either party.

An attempt has therefore been made to set forth in the present section the changes which have taken place or are about to take place, arising from action taken by the industry itself. This section will also include the measures taken by the Governments or in preparation. In doing this, it has been borne in mind that one of the characteristic features of the problems confronting the coal mining industry, such as labour, vocational training, housing, physical and moral hygiene of the miners, is the fact that they are always present.

These problems arise in a more or less acute form, varying according to period, and they take on an aspect closely related to general circumstances, but they do not disappear, they merely develop. The Committee considered them at a time when the general economic situation was a particularly dramatic one. When it made recommendations concerning them, it endeavoured in particular to assist in their development by means which should at one and the same time help the reconstruction of a war-devastated world, consolidate one of the basic industries in present-day economy, and safeguard the social progress without which all else would be in vain. Therefore this development will be more easily followed because the Committee will have before it all the measures taken in the course of the past two years, whether originated by the Governments or by the industry itself. In this way the Committee will be able, for each one of these problems, to ascertain the "trend" and to pursue its task with full knowledge of all the facts.

MANPOWER

Resolutions I, II and III, referred to in Section I of this chapter, in a different connection, refer to manpower. The first deals with the regulation of the recruitment of manpower, national as well as foreign; the second with priority for recruitment for the coal mining industry; and the third with the employment of prisoners of war. It was felt that it might be well, in order to sum up the situation with regard to manpower, to establish a relationship between them, taking due note, where necessary, of measures for

the improvement of the calling in order to facilitate recruitment.

Generally speaking it may be observed, as did the Subcommittee on Manpower of the Economic Commission for Europe in its Report¹ to the Third Session of the Commission, that the position in the coal mines has improved in regard to manpower, owing (a) to priority for recruitment for the coal mining industry; (b) to the social measures for mineworkers. It is therefore proposed to follow up the factors constituting this progress, country by country.

Australia

In Australia, recruitment does not appear to be a specially alarming problem, and the recommendations of the Committee do not, therefore, have the same value here as in the case of other countries. It is nevertheless noteworthy that in the State of New South Wales, where the richest Australian coalfields are situated, all new recruits will in future have to be medically examined before being permitted to work in the mine. The Joint Coal Board proposes to build and equip at its own expense its own medical centres, since it holds that the nation as a whole is responsible for the health of every miner.

Belgium

The Belgian Government, in a communication to the Office, states that, since the liberation of the country, the authorities have been constantly engaged in improving the mining trade and assisting the industry to find labour in sufficient quantities and sufficiently well trained to meet the needs of the national economy.

Thus, numerous Legislative Orders were promulgated dealing with the most varied aspects of living and working conditions for miners. These taken together form the Mineworker's Statute. One of the Government measures which has done much to further the application of a satisfactory social policy was the extension of the powers of the National Joint Mines Committee, which has existed since 1920 and on which employers and workers serve jointly. By Royal Order, the decisions of this Committee concerning wages and general working conditions may be made binding upon all employers and mineworkers.

By a series of decisions of the National Joint Mines Committee,

¹ UNITED NATIONS : Document E/ECE/67, 13 March 1948.

wages, which are no longer pegged to the retail cost-of-living index, have been progressively increased.

The Committee drew up a classification of underground and surface jobs, consisting of ten groups for underground and five for surface workers. This classification, which was approved by the Government, enabled a scale of wages to be established the steps in which are proportionate to the technical hierarchy coefficients allotted to the different groups, the basic wages for surface workers being those of group 1 (unskilled workers), and for underground workers, those of the lowest group the wages of which are 25 per cent. higher than those of No. 1 surface groups. Workers on the coal face and tunnellers are placed at the top of the scale.

To carry on and assist in the recruitment drive undertaken by the authorities, the Research Committee on Coal set up by the Federation of Coal Mining Associations proposes to begin a "Back to the Mine" campaign which will be carried out by means of the Press, films, radio, primary, intermediate and trade schools, and publicity. It will have the support of all the official authorities concerned in the recruitment programme, and will be based not merely on the wages offered, which compare favourably with wages for Belgian workers generally, but also on the following benefits granted to mineworkers :

In addition to the annual holidays to which all workers are entitled, underground workers in mines are entitled to an additional annual holiday of twelve days, subject to their regular attendance at work; but an Order of the Regent, dated 2 September 1947, has made this reservation even more elastic than it was when it first came into force. Mineworkers (both surface and underground) are granted travelling facilities. While other wage earners are entitled only to reduced fares on public holiday tickets, mineworkers are entitled to free transport vouchers, at the rate of a return voucher for every two days' ordinary holiday, or a one-way voucher for every one day. Underground workers are given a season ticket for their twelve days' additional holiday, and this allows them twelve return journeys on the Belgian railways.

A premium of two thousand francs is paid to every new recruit for underground work, and young men taking up this work are exempt from all forms of military service provided that they remain in the mine until they reach the age of twenty-eight years; and loan facilities are granted to all mineworkers, surface or underground, for the purchase or building of their homes.

In Chapter II will be found details concerning pensions for mineworkers; it is enough here to note that the system in force is a particularly generous one, and may well be regarded as an additional attraction for purposes of recruitment.

What is the manpower situation in the mines in Belgium? The Belgian Government recalls the fact that in pursuance of the resolution adopted by the Coal Mines Committee in London (December 1945) concerning the replacement of prisoners of war employed in mines, it drew up a programme for their gradual liberation, along with the intensification of the recruitment of Italian workers and displaced persons. This programme for the gradual liberation of prisoners of war covered the period May-October 1947.¹

In practice, the programme was carried out within the period specified. For, while in December 1945, the number of prisoners of war employed in the mines was 44,979 (this was the maximum figure), there were only 65 left in October 1947, and only one in December. On the recruitment side, in June 1947 there were 20,127 Italian workers, 10,188 displaced persons and 15,687 foreign workers of different nationalities. One year later, in June 1948, the situation had developed as follows: Italian workers, 39,103; displaced persons, 13,800; different nationalities, 18,155.

To give a more complete picture of the composition of the manpower available, it will be recalled that in 1946 there were 94,714 miners of Belgian nationality; in June 1947, 94,905, and in June 1948, 97,710; to these should be added 1,361 who have been deprived of their civic rights (*inciviques*). Briefly, the total manpower figures registered in the Belgian mines have developed as follows: 157,642 in December 1945, 164,766 in December 1946, 163,278 in June 1947, and 170,126 in June 1948.

It would appear, therefore, that the liberation of prisoners of war entailed no difficulties, and that the necessary manpower to replace them was duly found. The fact nevertheless remains that Belgium's manpower in the mines includes 42 per cent. of foreign labour. This is a considerable proportion, which at the present time gives rise to a number of problems connected with adaptation, housing and vocational training. Some of these problems to a certain extent affect the output.

The Italian workers constitute the largest single group of

¹ Cf. International Labour Organisation, Coal Mines Committee, 2nd Session, Geneva, 1947, Report II: *Utilisation of the Resources of the Coal Mining Industry* (Geneva, I.L.O., 1947), p. 122.

foreign workers. They were recruited in Italy as the result of an agreement concluded in June 1946 by the two Governments. A Belgian mission does the prospecting and attends to the recruiting formalities on the spot. Each worker taken on receives an individual contract, which will be briefly analysed here.

The contract is valid for twelve months from the date of starting work; it may be renewed for successive periods of the same length. It may be terminated by either party at two months' notice. The employer may terminate a contract in any one of the following circumstances: (1) failure to observe the terms of the contract or the regulations of the undertaking; (2) conduct likely to disturb the order and discipline of the undertaking; (3) refusal to go to hospital in case of an infectious disease. The worker may do so in any one of the following circumstances: (1) his unsuitability for underground work as a result of accident or illness; (2) refusal on the part of the employer to return the documents which are the worker's personal property (passport, contract, etc.); (3) failure on the part of the employer to observe the terms of the contract; (4) ill-treatment.

The contract stipulates that the worker shall be taken on "exclusively for underground work" and that he shall undertake to remain in the service of the company for the entire duration of the contract.

The normal working week is also stated in the contract; so are statutory holidays, and Belgian and Italian national holidays, which are generally regarded as idle days.

In its different clauses, the contract ensures for the worker the benefit of the same advantages and working conditions as the Belgian workers: wages, bonuses, pensions, protection, etc. The contract actually states that lack of knowledge of the working language—French or Flemish—does not in any way involve a lower wage than a Belgian worker would receive for similar work in a similar category, nor does it justify the person's being assigned more difficult, dangerous or unhealthy work.

The contract provides that if the worker is married he may send for his wife and children, the employer undertaking to do all in his power to provide them with decent housing, supplied with the necessary furniture. The employer advances the travelling expenses for the family's journey, and these expenses are repaid to him by monthly instalments. In the case of an accident involving permanent total disablement, the worker and his family are repatriated at the employer's expense as far as the frontier. This

also holds good if the worker dies, in which case his family may be repatriated in the same way. The family is also entitled in such cases to all allowances provided under the legislation in force. Finally, an allowance covering repatriation expenses as far as the worker's national frontier is guaranteed in the following cases: for the worker himself after a continuous period of five years' work in the coalfields; for the worker himself and his family after seven years' work.

With regard to the recruitment of displaced persons, during 1947 negotiations took place between the Belgian Government and the military authorities of the American and British occupation zones in Germany, which led to agreements providing for the recruitment of 35,000 displaced persons. As in the case of other foreign workers, they are engaged by individual contract which, in addition to the guarantees mentioned above—covering housing, working conditions, and equality of treatment with Belgian workers—contains some additional guarantees, in view of the fact that the legal position of displaced persons is different from that of workers who are recruited under agreements with the Governments of their own countries.

The contract for a displaced person is valid for twenty-four months from the date of starting work. Provision is made for its automatic renewal, when the person employed has given satisfactory service, for one year at a time. The contract may be terminated by the employer or by the worker for the same reasons as those already mentioned.

The contract provides that the Belgian Government, in consultation with the Federation of Belgian Coal Mining Associations, shall be held responsible for the conditions of work. If the holder of the contract dies, the employer undertakes to report the death at once to the Inter-Governmental Refugee Office.

The contract for a displaced person contains one extremely important clause, namely, that after a satisfactory trial period, lasting ninety days, a married worker may send for his wife and children, or any other dependants, after being authorised to do so by the Belgian Government. And, in pursuance of this provision, the contract stipulates that the worker and the persons accompanying him shall be encouraged to settle in Belgium if they wish, and that in that case they may become naturalised Belgian citizens, in conformity with the legislation in force.

The Coal Mines Committee, in the course of its Second Session, devoted so much attention to the question of displaced persons

that it seems well to submit to it a full account of the practice established by the Belgian Government in this matter.

Apart from the individual contract which is given to all displaced persons taken on under the direct responsibility of the Federation of Belgian Coal Mining Associations, the Belgian Government has drawn up a document of a general character known as the "Status and protection guaranteed by the Belgian Government to displaced persons permitted to enter Belgium". This document, which consists of twelve articles, gives the Government's solemn guarantee of the individual contracts, while at the same time specifying the rights and obligations of displaced persons permitted to enter Belgium. With regard to the rights, it may be noted that persons who have never in any way collaborated with the nazi régime, and who have received permission to sign an individual contract, may receive immediate permission to lead a free and normal life in Belgium. Such persons are given transport as far as the Belgian frontier by the United States authorities, and may bring with them all the possessions which are actually their personal property. They will enjoy the rights and liberties granted to all foreigners permitted to reside in Belgium. The Inter-Governmental Committee on Refugees will hold itself responsible for their legal and political protection. They may terminate their contract under the prescribed conditions, in which case they may obtain from the Belgian Government the necessary papers for their departure.

With regard to the obligations, displaced persons are merely required to respect the terms of the contract which they have signed and the laws of the country. Displaced persons may be sent back to the American occupation zone in the following three cases: (a) termination of contract for reasons other than those permitted by the terms of the contract; (b) unsuitability for underground work or any other occupation in Belgium; (c) action or propaganda endangering public safety.

Prisoners of war, though to a lesser degree, were also a source of recruitment. Rather than return to Germany, prisoners of war could, on an absolutely voluntary basis, sign a contract to work in the mines. Those who decided to do so received individual contracts which, basically, were similar to the first contract analysed above. All that is necessary here, therefore, is to point out the special clauses called for in view of the special position of these workers.

The contract is valid for twelve months and may be renewed.

Once a month, through the intermediary of the Government authorities, an ex-prisoner may send to his family in Germany a part of his wages and one standard parcel. When his contract is being renewed for the first time, the authorities consider whether the worker's family should come and visit him, or settle, either temporarily or definitively, in Belgium. Where neither visit nor settlement is permitted, and when a worker has spent more than eighteen months in the mines and has not seen his family for several years, he is granted a special fifteen-days' holiday with pay. In principle this is meant to be taken at Christmas or the New Year, subject to his having fulfilled the same attendance conditions as the Belgian workers and provided that he undertakes to return to the coalfield once his leave is over. In the case of ex-prisoners, the question of nationalisation is not yet settled; it is now under review and a solution will be found in due course, but it is not now possible to prejudge the issue.

Czechoslovakia

In Czechoslovakia, although by 1947 the manpower figures had risen from 60,676 in December 1945 to an average of 64,000, the recruitment problem continues to engage the attention of the authorities. During 1947, there was a drop in mining output.

In August, a recruitment campaign was undertaken, with the object of recruiting nine thousand voluntary workers; this object was attained within a few weeks of the opening of the campaign. Nevertheless, on 1 November 1947 the Minister of National Defence received instructions from the Government to raise the number of soldiers working in the mines to three thousand at least and to increase it to eight thousand during the period 1 February-1 October 1948.¹

Furthermore, the Government has decided that during their two years of military service conscripts shall do sixteen months' active service in the army, and eight months of compulsory work, mainly in the mines, in agriculture and in the building industry.²

France

In a communication to the Office, the French Government recalls the fact that the recruitment of manpower for the coal

¹ Report of the Correspondent of the I.L.O. at Prague, Nov. 1947.

² *The Times* (London), 25 Nov. 1947.

mines immediately after the liberation became one of its main preoccupations, and has since been the object of its most strenuous efforts. In conformity with paragraph 4 of the resolution adopted by the Coal Mines Committee, recruitment has been facilitated by measures for the improvement of the miner's calling, and to improve miners' food supplies by granting them supplementary rations.

In fact, while only 210,084 miners were registered up to 1 January 1945, including 136,628 underground workers, on 25 September 1948, the total number of mineworkers amounted to 312,398, including 210,635 underground.

All the other recommendations contained in the resolution—strengthening of safety and health regulations, co-operation between the different parties to production, modernisation of equipment—are the constant care of the Regional Boards and the Mines Department.

Generally speaking, all measures intended to improve the trade or to ensure certain special benefits for miners are laid down in the agreements concluded with the trade organisations, the Governments of other countries, and certain inter-governmental authorities, all of which is in conformity with the recommendations of the Committee.

With regard to national manpower, in its recruitment policy the Coal Board acts in conformity with all the rules laid down in Part II of the resolution adopted by the Committee—preliminary medical examination, technological apprenticeship for young persons under eighteen years of age, vocational training for young recruits over eighteen years of age, observation of such recruits during the adaptation period, provision of a decent house or housing facilities.

The national sources of recruitment still remain insufficient to meet the industry's manpower requirements, and the Government has therefore continued its attempts to find labour either in its North African territories, or else in Italy or Germany, or again among prisoners of war, by offering them contracts as free workers.

Attention should be drawn to a new departure evolved by the National Coal Board in the recruitment of North African workers.¹ Until then, these workers were generally recruited on an empirical basis, or through employment offices set up in some of the principal ports. In the circumstances, practically no serious guarantee was

¹ *L'Usine nouvelle*, No. 35, 26 Aug. 1948.

required of the candidates, and the system resulted in not a few disappointments for the Regional Boards. It was then decided to recruit the raw and spirited Berber workers directly in their mountainous country, and to take them straight by air to the Northern coalfields. A medical specialist was sent to Southern Morocco. Out of the first batch of five hundred candidates, only 125 were accepted, and these were provided with a proper workbook containing a photograph and medical observations, so that the worker may be supervised wherever he goes to work. The engagement contract is valid for eighteen months, and the Regional Board ensures free transport to the place of work and guarantees the return journey. In mid-August, the first aircraft brought sixty North African workers to the Lens mines. It was anticipated that during 1948 two thousand workers would be recruited in this way.

Recruitment in Italy is governed by a new agreement, dated 3 February 1948, between the French and Italian Governments. The French Government, mindful of the recommendations of the Coal Mines Committee, points out that in agreements of this sort it has always specified its methods of prospecting and of selecting candidates. The Government adds that the bilateral agreement signed with Italy includes numerous clauses that conform with the Committee's recommendations, *e.g.*, those dealing with individual contracts and information and aid services. All the provisions suggested by the Committee do in fact appear in the individual labour contract, or are communicated to the recruited workers when they are taken on by representatives of the Coal Board specially posted to the recruitment centres. These same representatives as far as possible, run the information services set up to supply information to candidates for work as miners.

After these workers reach France, the Information Services at the Regional Coal Boards supply the immigrants with all the necessary information. These services are daily gaining in efficiency and they enjoy the co-operation of the trade organisations.

In addition to the above information, it should perhaps be added that the French authorities have granted special facilities for the entry into France of the families of immigrant workers intended for the mining industry. Generally speaking, requests for the entry of families come under one of two headings: delayed or immediate entry. Immigrant miners, as well as agricultural workers, may apply for the immediate entry of their families into France, which enables them, as soon as housing conditions permit, to settle in that country.

In Report II, for the Second Session of the Committee, mention was made of the conclusion on 21 February 1946 of a Franco-Polish agreement on the repatriation to Poland in 1946 of a contingent of miners working in France, and it was foreshadowed that a similar agreement would be signed for 1947.¹ Such an arrangement was in fact signed on 28 November 1946, providing for the repatriation during 1947 of seventeen thousand Polish subjects. During 1947, however, only twelve thousand workers belonging to different trades were actually repatriated. Repatriation continued during 1948, under the terms of another agreement dated 24 February 1948, which provided for the repatriation during that year of sixteen thousand Polish subjects belonging to the following trades: five thousand underground and surface workers belonging to all mining undertakings (coal, iron, potassium, etc.), including not more than four thousand coal miners; five thousand agricultural workers; three thousand industrial and building trade workers; and three thousand belonging to miscellaneous categories (traders, craftsmen, disabled and retired persons, persons without occupation, etc.).²

When several countries are interested in recruiting manpower in a foreign country, the Coal Mines Committee, in paragraph 11 (2) of its resolution concerning the regulation of recruitment, recommends that they should "get in touch with one another to agree on the methods of recruitment and the conditions of employment, and to maintain contact during negotiations". In its communication to the Office, the French Government points out³ that as the Belgian coal industry is in competition with the French in regard to recruitment in Italy, informal contacts have been made, but that no definite agreement has yet been reached on methods and conditions of recruitment. The French Government adds that its Mines Directorate would welcome a definite agreement on this question. It may be that such an agreement will be reached before the opening of the Third Session of the Committee, and this would be highly desirable. If by any chance no agreement has been reached by that time, the Committee might perhaps consider bringing the parties concerned together, in accordance with the principles of its own recommendation.

Regarding the recruitment of displaced persons, the French

¹ International Labour Organisation, Coal Mines Committee, 2nd Session, Geneva, 1947, Report II: *Utilisation of the Resources of the Coal Mining Industry* (Geneva, I.L.O., 1947), pp. 119-120.

² *L'Usine nouvelle*, No. 17, 22 April 1948.

³ Communication from the French Government dated 29 September 1948.

Government has concluded an agreement with the British and American military authorities in the occupation zones in Germany, for the recruitment of displaced persons and German labour. The French Government states that in this case the recommendations of the Committee have been scrupulously complied with, both in regard to refugees and to free German workers and prisoners of war.

It should be added that a general agreement has been concluded between France and the Inter-Governmental Refugee Committee, leading to an exchange of letters between France and the United States, after which the Government of the latter expressed its approval of the agreement.

As a result of certain fears expressed by displaced persons in the American Zone, the French Foreign Minister has publicly reiterated the assurances of his Government and has recalled the terms of the above agreement.¹ "The French Government's policy in regard to foreign immigration", he said, "has always been and continues to be based on the principle of the individual's freedom of action."

It has been agreed that all displaced persons should be entirely free, if they did not wish to continue to live in France, to proceed to the country of their choice, except in the following cases, as laid down by Article 10 of the agreement with the Inter-Governmental Refugee Committee: (a) disablement or unsuitability for work; (b) breach of contract; (c) action or propaganda constituting a danger to public order or the safety of France; (d) persons to whom the Resolution adopted by the United Nations in February 1946 applies. This Resolution deals with "war criminals", "traitors", and "quislings". In these specific cases the immigrants may be sent back to the German zone in which they were living before they came into France.

An assurance was given which is of the utmost value to displaced persons, namely, that no pressure would be brought to bear upon them to proceed to a country in which they had expressed no desire to reside. Finally, it was agreed that the International Refugee Organisation should be responsible in France, in the same way as in the German and Austrian zones, for the administrative protection of immigrant displaced persons who receive no such protection from their own Governments.

The situation has also undergone a change in connection

¹ *Le Monde*, 8 July 1947.

prisoners of war. At its Second Session, the Committee restated the opinion that the withdrawal of prisoners of war should not interfere with the production of the countries in which they were working and, to this end, it had recommended that the time-lag before their liberation should be calculated with an eye to the difficulty of replacing them.

The French Government states that following negotiations with the Anglo-American authorities, October 1947 had been appointed as the date by which all the prisoners still in France must be released, but that this final date had subsequently been postponed until 31 December 1948. The French authorities made use of this postponement to give effect to their decision of 1 April 1947 to offer prisoners of war contracts as free workers. Thus, while their liberation was proceeding by degrees, a certain number of prisoners became free workers and voluntarily remained in France.

It will be recalled that by 31 March 1946, to revert to the figures supplied to the Second Session of the Committee, there were 55,470 prisoners of war working in French mines, 44,310 of whom were working underground. On 31 March 1948 this figure had fallen to 21,980 including 14,857 underground; and by 25 September 1948, it had further decreased to 12,677, including 7,985 underground.¹ How many prisoners had become free workers by September 1948 is not known at the present time, but by 1 May there were 20,839. By comparison with the contingent of prisoners employed, this seems to provide a fortunate solution to the grave problem of replacing the manpower lost to France by the liberation of the prisoners.

It would appear useful to give the Committee some information on the way in which the change of status of a prisoner of war to that of a free worker is effected. The status of free worker was offered to all the prisoners, with the exception of those in the following categories: war criminals or suspected war criminals; Waffen-S.S. and blocked units; those who belonged to the cadres of the N.S.D.A.P. from the rank of *Blockleiter* upwards; convicts and officers of the reserve.

All prisoners accepted as free workers may sign a contract for a maximum period of twelve months. These contracts may be extended. The workers may also seek work in a different undertaking, but not in a different trade. Wages and working conditions

are identical with those of French workers in the same class. The social legislation governing insurance, industrial accidents, holidays with pay, etc., applies in the same way as to foreign workers.

When the contract is signed, the prisoner who is now a free worker receives civilian clothing free of charge. He may request permission to send for his family; in this matter, the authorities take their decision in the light of the housing situation. The wife and children are entitled to the normal family allowances provided for foreigners. Finally, in view of his prolonged absence from his family, the worker is given his first holiday as soon as possible after his contract is signed.

Prisoners who have become free workers may become members of French trade union organisations and may apply to them for protection and defence of their interests. In the matter of protection, it should be stressed that the International Red Cross Committee continues to play in regard to them a part similar to that of the Protecting Power in the defence of their interests.

As for prisoners who have not yet been freed and have not yet become free workers, the French Government points out that they receive the same wages as French workers, including bonuses. However, except for cases where technical difficulties arise, they are not guaranteed a minimum salary.

Out of this wage, deductions are made for cost of living, taxes, and subscriptions paid by workers entitled to social insurance. A percentage of the wage is handed to the prisoner; the rest enables him to build up savings, a part of which he may withdraw to send to Germany.

In the matter of recruitment of workers in Italy and Germany, as in the changing of prisoners of war into free workers, the French Government points out that, in pursuance of the resolution of the Committee, it has generally granted priority to coal mines. Of the other branches of industry, only agriculture has so far received the same attention as the coalfields.

India

In India, manpower problems display very special characteristics. During the First Session of the Committee, Mr. Ikramullah, the Indian Government representative, stated that his country had no mining population as such, for most of the miners are often at the same time agricultural workers, recruited in regions remote from the coalfields.

The problems to be solved with a view to providing a steady and skilled labour force for the mining industry, satisfied with its work and its standard of living, are therefore more complex than in most other producer countries. The authorities have tackled them methodically, inspired by their wish to find humane and at the same time economically practicable solutions. The Government of India, considering that the best means to achieve this would be to co-opt the employers and the workers, took the lead in forming an Indian industrial committee on coal mining. This committee, which is tripartite in its composition, has already met twice—in January and September 1948. In opening the first session, the Chairman stated that the Government of India had been so deeply appreciative of the work of the Coal Mines Committee of the International Labour Organisation that it considered that a similar committee might be extremely useful to the country's coal industry, with a view to examining and solving, by means of frank and honest discussion, any problems that might arise.

The Government submitted to this committee the measures taken in pursuance of the recommendations of the Coal Mines Committee at its Second Session. Those measures which deal with the improvement of the trade and with manpower problems are summarised here for the information of the Coal Mines Committee.

As a result of the conclusions reached by the Conciliation Board set up by the Government in February 1947, considerable wage increases were granted to the miners in May 1947, while a compulsory Provident Fund was provisionally set up by Order of 23 April 1948. In 1947, an Act came into force establishing a welfare fund for miners, financed by a tax per ton and intended for the financing of housing programmes and various welfare services for the miners.

The Mines Act is now being revised in order to bring it into line with modern practice. This revision will lead to a strengthening of safety and health measures and will enable mines inspectors to proceed to foreign countries to study the methods in force there. The number of inspectors has already been raised from four to seven, and that of assistant inspectors from six to fifteen.

The resolutions—or parts of resolutions—concerning priority for recruitment for the coal mining industry, the recruitment of foreign manpower, and the employment of prisoners of war do not concern India.

As for the resolution concerning the application of the Miners' Charter in economically underdeveloped countries, the Government

of India, having taken due note of the fact that the Coal Mines Committee had realised the extent of the effort already made, states that it will make proposals with a view to continuing this effort, and will from time to time submit those proposals to the Coal Mines Committee. It will be noted that the Committee recommended, in the resolution in question, that the targets to be achieved should be determined in consultation with employers' and workers' organisations.

Employers and workers alike are aware of the value of the measures taken by the authorities and now beginning to be applied, and are appreciative of the spirit in which they were drawn up. But there are many and grave difficulties still to be overcome.

As a result of the improvements made in the general working conditions of miners, and particularly because of the free and concessionary supply of rice and food grains, there has been a considerable influx of labour into the mines from the neighbouring regions. This movement, following upon the manpower shortage of recent years, should have been regarded as a boon, but unfortunately it coincided with a slowing down of production which was made inevitable by lack of sufficient transport to clear the mine yards, where stocks are accumulating. During the first eight months of 1948, forty to fifty mines closed down, throwing a large number of miners out of work. The heads of the undertakings that are still operating find it extremely difficult to reject miners applying for work. In mines where the gang system of working is in force, it is found that ten or twelve workmen go down into the pits where previously a gang consisted of only six or eight men. Since output is no higher, and the work is paid for at piece rates, the result is that the total earnings are divided among a larger number of workers and each individual worker's pay is lower. One of the many consequences of this situation is that for the worker individually this counteracts the benefits of the recent increases in pay.

Again, this state of affairs helps to keep alive or sets up a certain dissatisfaction among the workers, who do not always understand the technical difficulties; and to see the mines being closed after the Government has decided to increase their wages appears to them suspicious.

It must be added that such a situation could only have developed as a result of the more or less general absence of control of mine-workers and of the still widespread practice of "jobbing out" (*tâcheronnat*) by "contractors" acting as middle men between workers and employers. The Government has therefore, through the

industrial committee, appealed to employers and workers for their co-operation, in order to standardise employment in mines by establishing a system of staff registration. The Government feels that the industry cannot absorb new workers coming in a body to the mines, where employment conditions are much better than in other spheres of work, and that it is necessary to establish what might be properly described as a real mining labour force.

It is true that the problem is a delicate one to solve, and it should be emphasised here with what great regard for fairness the Government has placed it before employers and workers alike. In fact, in asking the Industrial Committee on Coal Mining to assist it in finding a solution, the Government has reminded the Committee that, while sentiment cannot override economic laws, humanitarian considerations cannot be altogether ignored.

Standardisation of employment is not only necessary for meeting the situation described above. It would also appear to be necessary in order to ensure the success of the measures which have been taken, such as the recent establishment of the Provident Fund, the system of bonuses for good attendance and output, and the Miners' Welfare Fund. These institutions, which were set up for the mineworkers, cannot benefit them unless the manpower situation becomes stable. And, since the industry and the country alike have every interest in encouraging such stability, it seems probable that the Industrial Committee on Coal Mining will, by successive stages, eventually achieve this objective.

Netherlands

The Netherlands Government reported to the Office that the Netherlands coal mines are generally in line with the recommendations contained in the Committee's resolutions.

In October 1947, an agreement was signed between the Netherlands and the United Kingdom, and countersigned by the International Refugee Organisation. It dealt with the recruitment of three thousand refugees in the British Zone in Germany for work in the Netherlands coalfields.

By the terms of this agreement, the immigrants are given an assurance that they will enjoy the same working conditions as Dutch workers, while they will likewise be granted the same rights and freedoms as are accorded by law to all foreigners residing in the Netherlands, including the right to apply for naturalisation after five years' uninterrupted residence.

If it is found that an immigrant cannot do the work originally assigned to him, the agreement provides that the authorities shall endeavour to find him more suitable work. Finally, the International Refugee Organisation will be responsible for the legal protection of the refugees, and will have the right to make representations or suggestions to the relevant authorities when a refugee is threatened with expulsion.

Poland

In Poland, the manpower figures rose from 167,000 in 1945 to 199,982 in July 1948. Although considerable progress has been made, the coalfields will require even more manpower to reach their production targets. Systematic recruiting, which has been in operation since the end of hostilities, continues, relying on the social reforms achieved during the past two years, and on the benefits, extremely valuable at the present time, accruing to mineworkers, such as priority for flats, free meals, supplementary rations, and allowances in kind.

During 1947, 23,000 young persons entered the coalfields, as well as 13,700 experienced miners repatriated from France, Belgium, the Netherlands, Western Germany and elsewhere. In pursuance of certain treaties with these countries, further Polish workers¹ returned to their country in the course of 1948.

Turkey

The Turkish Government has expressed its full agreement with the wishes and recommendations of the Committee. It never relaxes its efforts to improve general working conditions for miners, and progress has been made since the mines in Turkey's only coalfield (Eregli-Zonguldak) have been operated by the State, by the terms of a law promulgated in 1940.

Free meals are now distributed, the bread ration has been increased and is now higher than that of other workers, the clothing distributed shows greater variety, wages and bonuses have been raised, and in 1947 an Act was passed whereby the wages of all underground workers are exempt from taxation. Safety and health measures have been reinforced, and special regulations governing the mines are in preparation. These measures as a whole tend to facilitate recruitment and to stabilise the mining labour force.

Union of South Africa

From a communication sent by the Government of the Union of South Africa to the Office it may be seen that most of the recommendations contained in the resolution on recruitment do not affect the Union, either because the existing situation in the Union's industry is already in accordance with the wishes expressed by the Committee, or because of the peculiar characteristics of the industry due to the structure of its manpower.

Most of the manpower is native¹, and there is no serious competition on the part of the other industries in regard to recruitment. It would, however, be erroneous to believe that the absence of competition on the labour market results in the native labour working under inferior conditions.

Taking into account the benefits in kind which they receive, such as free board, lodging and medical care, etc., their pay compares favourably with that in other branches of industry. Further an enquiry into their working and living conditions has been undertaken by a Commission appointed by the Government in 1945, and it has been found that these conditions are in conformity with those laid down by the Committee.

Food is plentiful for white workers and for the native miners alike, and the minimum rations fixed by the Government for the latter are always exceeded.

The safety and health regulations in the mines of the Union will bear comparison with any in the world, and they are rigidly enforced.

Before being taken on in the mine, all native workers must undergo at least one medical examination. The Mines and Works Act forbids underground work for all young men who appear to be under sixteen years of age, and the Native Labour Regulations do not permit the recruitment of natives who appear to be under eighteen years of age.

The recruitment of foreign manpower extends only to natives within the territory of the Union, and is regulated by bilateral agreements which conform to recommendations (a) and (n) of paragraph 13 of the resolution, that is, they cover the number of workers to be recruited for the coal mines and provide for measures to ensure that the agreements concluded are carried out to the letter.

¹ The proportion between white and coloured workers is about one to fourteen.

Recruitment is carefully controlled in the area of origin as well as in the reception area. The organisation of this recruitment has long been in perfect working order.

After a worker is taken on he signs an individual contract in which appears all the necessary personal details, the list of the various mining companies between which he may choose, the various types of underground work complete with the wages paid for a definite job; and, finally, an assurance that he will be paid for a minimum of twenty-two shifts per month, provided that he is available for that number. The contracts are naturally translated into the language of the person to be taken on, and the new recruits are taught the language in common use in the mines. Finally, to be valid, the contract must bear the signature of the doctor certifying that the candidate is in a good physical condition.

United Kingdom

The United Kingdom Government has sent the Office a communication summing up its manpower position in relation to the various suggestions and recommendations made by the Committee. According to this communication, it would appear that no small results were attained during 1947 in the recruitment of British labour. Nevertheless, having regard to the high rate of wastage due to the difference between intake and outflow, the recruitment of Polish nationals residing in the country was encouraged, and, in order to ensure a net increase in manpower, efforts are also being made to recruit thirty thousand European volunteer workers.

All foreign recruits to British mines enter the industry on the same terms and conditions as British workers, the only exception being that in the event of dismissals foreign workers will be dismissed first. These terms and conditions, as the Government points out, are in keeping with the recommendations of the resolution on recruitment.

The need for improving the miner's calling with a view to stimulating recruitment has been fully recognised, and efforts in this direction continue. Since the mining industry was nationalised, the following changes have been made: introduction of the five-day week, payment for statutory holidays, the doubling of the welfare levy and the undertaking by the National Coal Board of the full cost of the pit-head baths programme. In addition, wages in the mining industry are now among the highest in industry.

Special attention has always been devoted to food supplies for mineworkers in view of the present stringent rationing, and special measures have been taken for their benefit: (a) generally, by allotting to mining areas additional supplies of sugar and fats for flour confectionery, of meat for the manufacture of meat products and of oil for fish frying; (b) by allotting to colliery canteens higher rations than those allotted to ordinary restaurants, as follows: three and a half times as much meat; nearly twice as much fats and sugar; twice as much cheese; three times as much bread; (c) finally, by allotting special individual rations, such as, for example, cheese—since 1941, all underground miners have been entitled to a special cheese ration of 12 ozs., and so have surface workers where there were no canteens, compared with the domestic ration of one and a half ozs.; bread—since July 1946, 21 bread units per week, compared with 15 for ordinary manual workers and 9 for the general population; a further 6 units could be obtained by mineworkers who qualified for the special cheese ration; butcher's meat—since November 1946, all underground coal miners have been granted a supplementary ration of a shilling retail value per week over and above the general domestic ration.

With regard to safety and health administration in coal mines, the National Coal Board is in constant touch with the Ministry of Fuel and Power about improvements in health and safety conditions, *e.g.*, the erection of modern treatment centres for miners and the appointment of State registered nurses at the larger mines, are being introduced in advance of the statutory requirements.

Regarding dust prevention, a voluntary scheme agreed between the National Coal Board and the National Union of Mineworkers is being introduced for dealing with the general dust problem in all coal mines.

The Ministry devotes special attention to keeping the existing code of laws and regulations concerning safety, which is already comprehensive, up to date. In 1947, three new sets of regulations were introduced, dealing respectively with lighting, ventilation and propping, and designed to improve existing standards. It is intended to carry further the work done in the past few years to improve propping, work which has already resulted in a material reduction of accidents from falls. New regulations dealing with winding and haulage were introduced this year. Proposals are to be made shortly to strengthen existing regulations. They cover such matters as raising the standard of certificated First

Aid men and their better distribution underground, and improving the transportation of injured miners.

Finally, it should be added that before the war the Government had accepted the recommendations of the Royal Commission on Safety in Coal Mines, which reported in 1938. Some of these recommendations have already been implemented and it is hoped to implement others as soon as possible.

In order to achieve closer co-operation between employers and workers, joint consultative machinery has been established, since the mines became nationalised, at national, divisional, area and pit level. Joint consultative committees, composed of representatives of the National Coal Board and of the workers, are empowered to deal with any suggestion for increasing output.

Mechanical equipment is also progressing; the National Coal Board is now engaged in reorganising the industry with a view to modernising mechanical equipment on the lines suggested in the report of the Technical Advisory Committee (Reid Report). To facilitate this task, priority has been given for materials used in the manufacture of mining equipment.

All new entrants to coal mining who are under eighteen years of age are required to undergo a statutory medical examination. In the South Wales coalfield, adults are also requested to undergo a similar examination, which for all entrants is preceded by a radiological examination. Future developments envisage the gradual introduction of initial and periodic radiological and clinical examination throughout the United Kingdom. At present, on the results of these examinations, entrants are declared fit for underground work in the mines, or restricted to certain types of surface work, or rejected as unfit for any form of coal mining employment, and, when necessary, their precise duties are determined by their medical condition. Employment as a result of these examinations is, of course, governed by existing legislation as regards minimum age, hours of work and prohibition of certain types of work.

Prisoners of war are not employed in British coal mines, and the progressive liberation of prisoners will not therefore affect coal production in the United Kingdom.

In its communication the United Kingdom Government points out that no special legislation was required in matters relating to manpower and the improvement of the miner's calling—wages, conditions of work and methods of increasing production are dealt with by the joint consultative machinery of the coal mining industry. The responsibility for the administration of

health and safety measures rests with the Ministry of Fuel and Power; concessions and priorities in respect of food and materials with the Board of Trade and the Ministries of Food, Health and Supply.

There is no doubt that results have been achieved in regard to recruitment, especially during 1947, when 94,190 new workers were engaged for the coal mines, while 68,025 left for one reason or another, leaving the industry 26,165 men to the good. In 1945, the outflow exceeded the intake by 17,351; in 1946 an improvement set in, and by the end of that year the deficit was reduced to 4,198. But although the drop in manpower may be regarded as under control, nevertheless, despite the net gain of 26,165 workers in 1947, the industry has not yet the manpower which it regards as indispensable for the achievement of its target. To reach this, the Government, the National Coal Board and the National Union of Mineworkers considered early in 1948 that the total mining labour force should be raised to 750,000 by the end of the year. Accordingly, every effort was made to achieve this; but, as stressed in the reply from the United Kingdom Government, the balance between intake and outflow is not yet sufficiently adjusted, as may be seen from the following table.

TABLE I. UNITED KINGDOM : INTAKE AND OUTFLOW OF MANPOWER IN THE COAL MINING INDUSTRY

Period	Intake			Outflow			
	Under 18 yrs. of age	Other categories	Total	Death, retirement, disablement	Other causes	Total	Net Intake (+) or outflow (—)
1944 (52 weeks)	10,389	46,372	56,761	33,133	11,582	44,715	+12,046
1945 (53 weeks)	9,571	39,097	48,668	47,632	18,387	66,019	—17,351
1946 (52 weeks)	12,691	60,129	72,820	34,229	42,789	77,018	—4,198
1947 (53 weeks)	14,654	79,536	94,190	17,273	50,752	68,025	+26,165
1948 (39 weeks ending 2 Oct.)	8,169	50,498	58,667	11,317	40,522	51,839	+6,828

Source : Data supplied by the Ministry of Fuel and Power.

According to the estimates, 70,000 miners would leave the industry in 1948 (retirement, death, accident, voluntary departure); and, since in December 1947 the manpower in the mines amounted to 718,000 men, this meant that during 1948 the Government would have to find some 102,000 new recruits to arrive at the

figure of 750,000 mineworkers which is regarded as essential. In other words, to attain this object, new workers should be recruited at the rate of 1,961 per week. Table I shows that, while the expert forecasts on outflow seem to be confirmed by the first 39 weeks of the year, the rate at which new labour is recruited is a good deal below that which the situation demands, since the average weekly intake of new recruits for that period amounts to only 1,504, which is certainly alarming.

With regard to Polish mineworkers and European volunteers, here again recruitment has fallen short of expectations. On 3 April 1948, 6,914 Polish workers and 2,688 workers of other nationalities were working in British mines, making a total of 9,602. Since the total on 31 December 1947 already amounted to 6,772, the intake for the first thirteen weeks of 1948 amounts only to 2,830 workers for this category.

United States

The recommendations of the Committee were founded on the difficult conditions obtaining in the coal mining industry in certain countries. The United States Government has informed the Office that this did not, and does not, apply to the coal industry in its country, so that neither the authorities nor the industry have been compelled to take special measures concerning recruitment, in the sense of the Committee's recommendations.

In the United States, recruitment takes place normally and at a rate which permits the necessary work in the mines to meet the demands of the market, and also the replacement of workers leaving the mines for numerous reasons—retirement, illness, accident, death, etc. The Bureau of Labor Statistics found that in the bituminous coal industry, the monthly average outflow for 1946 amounted to 4.3 per cent. of the workers, while the average intake was 4.8 per cent. At first sight, this difference seems to be slight; but since it covered several hundreds of thousands of workers, it nevertheless resulted in a monthly gain for the industry of two thousand additional workers, most of whom were young men.

APPRENTICESHIP AND VOCATIONAL TRAINING

The resolution concerning apprenticeship and vocational training in coal mines adopted by the Committee appears to have aroused a very lively interest in the coal mining world. As already observed in the preceding pages, recruitment has greatly improved from

the numerical point of view. But this very growth, which in itself is fortunate, has raised even more acutely than before the problem of preparing and adapting for their work, in the full sense of the word, the numerous recruits entering the mining industry.

Generally speaking, it may be said that a very considerable effort has been made more or less everywhere, in the matter of apprenticeship and vocational training—in the case of the latter, from the most diverse aspects, varying according to the origin and age of the new recruits.

In drawing up its recommendations, the Committee clearly indicated that any system or method for the training of workers for coal mines must place the coal mining industry in a position enabling it not merely to meet economic demands, but also to safeguard its own future and that of the new generations of miners.

In the pages that follow the various efforts and experiments in this field are set forth, in order to enable the Committee to establish to what extent both are in keeping with the ideas which it had in mind when drawing up its recommendations.

Australia

In view of the fact that the labour force in the Australian mines is relatively small, and that it is regularly replaced, questions of apprenticeship and vocational training in that country are not of such urgency, nor do they take on the same importance, as in most other producer nations.

The efforts of the authorities and the industry are more particularly directed towards the training of highly-qualified workers and technicians. In this connection, it should be pointed out that the organisation set up jointly by the Commonwealth Government and the Government of New South Wales under the name of the Joint Coal Board for the Rehabilitation of the Coal Mining Industry, decided in 1948 to apply a systematic plan intended to give a solid foundation of technical training to young men wishing to take up mining as a career.

By the terms of this plan, fairly considerable scholarships—£228-£334 (Australian) a year—are awarded to young men with a good secondary education, to enable them to attend the Sydney Technical Training College for four years. In the award of these scholarships, preference is given to sons of mineworkers. The scholars undertake to work in the New South Wales coalfields for a period of five years after the completion of their studies, and if this

condition is not complied with they must reimburse their scholarship money.

The main purpose of this plan is to attract men of high technical and professional capacity into responsible posts in the industry.

Belgium

The Belgian Government points out that several mining companies have already set up private schools for accelerated vocational training in compliance with the desire expressed by the Committee, and, in accordance with the wishes of the Minister of Fuel and Power, other schools of this nature will doubtless be founded in the near future. A research committee was set up within the Federation of Belgian coal mining associations, to consider ways and means of organising practical courses to enable newly recruited foreign workers, as well as young Belgians wishing to take up mining, rapidly to familiarise themselves with their new calling.

The training courses now in action may be classified in two categories: training coal faces and apprenticeship schools.

The former are faces worked in seams, the roof and walls of which are in good condition, so that the coal is easy to hew. The new recruits are placed on these faces where, under the direction of experienced instructors, they spend some weeks in familiarising themselves with the miner's calling.

In the apprenticeship schools, practical and theoretical instruction is given. The theoretical courses are so planned that all the workers attending them, whether foreign or Belgian, can rapidly become familiar with the essential elements of the calling. The practical part of the training is given in workshops at the surface which contain installations faithfully reproducing conditions underground.

One of these practical vocational schools functions at the Hornu and Wasmes coal undertaking at Wasmes, and is regarded as a model of its kind. It includes: (a) a model mine, below ground but easily accessible to lay men, lighted and ventilated according to regulations and containing the same materials and apparatus as are in use underground, used in the same way; (b) a timbering room, where trainees learn to do all types of timber work that they will meet underground; (c) a machinery and tool shop, where the trainees may familiarise themselves with the multiple tools and machines they will have to handle underground, while at the same time they receive the necessary instruction

for their proper maintenance; (d) a lecture hall equipped with the appropriate teaching material, where mining engineers and technicians give lectures and classes.

Persons unsuited for underground work are systematically eliminated by an entrance medical examination. The training syllabus includes: (a) a course of general instruction which, in addition to its own merits, has the advantage of enabling the teaching staff to discover the most gifted of their trainees, and to direct each one of them towards the type of work that is the best suited to his personal qualities; (b) a course of technical instruction covering all the different kinds of activities in the mine; (c) vocational training, to ensure that the trainees have sufficient technical experience in each speciality taught to enable them to exercise the trade chosen; (d) psychological training which, at the end of the course, is given to the most outstanding of the trainees, likely one day to become supervisors. As may be seen, no aspect of vocational training is neglected in schools of this type.

For the training of supervisory staff there are twenty-four vocational schools in Belgium which are subsidised by the public authorities. Training in these schools—which lasts from one to three years—is rounded off by the award of a mine-foreman's or mine leader's certificate. The courses are generally held in the evenings and on Sunday mornings, which means that miners who wish to extend or supplement their knowledge can attend them, thereby making themselves eligible for higher-grade posts. In addition to a course on actual working methods, they include courses in general education, covering such subjects as languages, history, mathematics, drawing and others not directly connected with the trade.

Canada

The method of vocational training in use in Canada has already been described.¹ Vocational training courses are mostly held at the working site. There do not appear to have been any notable changes since the 2nd Session of the Committee. It should nevertheless be noted that the Royal Commission on Coal², in drawing attention to the need of lowering the average age of mineworkers by the introduction of young men, emphasised the fact that the

¹ Cf. *Utilisation of the Resources of the Coal Mining Industry*, op. cit., p. 144.

² *Report of the Royal Commission on Coal, 1946* (Ottawa, 1947).

growing tendency to use mechanical apparatus increasingly called for appropriate training. With regard to the methods to be used for this training, the Royal Commission expressed the opinion that it would be much better to leave it to the mining companies to define them, in co-operation with the workers' organisations.

France

The French National Coal Board has made and is still making considerable efforts to extend vocational training, because of the situation described by the Committee in Part I of its resolution. The French Government states that a special vocational training fund has been instituted, financed by compulsory contributions from collieries calculated on the basis of the net tonnage extracted, and administered by the National Coal Board.

Apprenticeship is compulsory for all young people entering the industry. It generally lasts three years, and apprenticeship centres have been set up in every coalfield. Generally speaking, their syllabuses conform to the recommendations of the Committee. At the end of their apprenticeship, and after satisfactorily passing a test, the apprentices receive a technical proficiency certificate.

By the terms of a decision of the National Coal Board, which has been in force since 5 November 1947, training courses for supervisors have been set up for a number of trainees selected among the holders of the proficiency certificate.

Apprentices are paid at the same rates as for normal hours of work. Where called for an attendance bonus may be added, as well as other bonuses or rewards.

The working programmes of the courses are fixed, and their application supervised, by the company and the trade union delegates acting jointly.

The French Government makes it clear that the suggestion put forward by the Committee in paragraph 8 of its resolution, for the inclusion of mining questions in the curriculum of elementary schools in mining areas has been studied and is about to be applied. On the other hand, these subjects are not yet included in the curriculum of secondary schools, but, in order to stimulate interest in mining as a career, lectures on mining engineering are given in the Paris secondary schools in the forms preparing for the main training colleges, and this method is about to be more generally applied in the provinces as well.

With regard to accelerated vocational training, the French

National Coal Board has taken a decision concerning the organisation of courses of this sort in all the coalfields. The courses are given at the mine itself, the surface courses lasting three weeks, and the underground ones not less than a month. The programme is largely that recommended by the Committee. New recruits are assembled in training sections, where they practise under the supervision of instructors who are ex-miners, all of whom have gone through a teacher's course in special schools or centres. Workers taking an accelerated training course receive the same wages as surface workers; when they are assigned to a definite job they are paid the wages appropriate to the job.

With regard to vocational training, an Act of 17 May 1946 entrusts the National Coal Board with the task of developing and directing it and of co-ordinating it with apprenticeship, since vocational training extends apprenticeship, and in the case of mining it is not easy to draw a definite distinction between them.

The National Coal Board has accordingly set up a central service which remains in permanent contact with the corresponding services in the coalfields. Every group of mines includes a special vocational training service, under the full-time direction of an engineer. Fifty-nine centres have been organised in this way; they are generally equipped with lecture halls, workshops, an experimental mine, or several replicas of mines, the necessary material for practising and a training face.

Finally, special training courses for overseers and electrical mechanics, held in the centres, complete the refresher courses for miners already at work.

Constant attention is also devoted to the training of supervisory personnel. Engineers in charge of apprenticeship centres for vocational training themselves periodically take courses in educational and psychological training.

The heads of centres hold quarterly meetings, during which, apart from current questions and exchange of documentation, they make a careful study of current mining problems.

The National Coal Board uses the school for supervisory personnel at Bergoide (Haute-Loire) for training instructors for all the apprenticeship centres. This school is under the direction of an engineer with many years' experience of underground work; he is assisted by a deputy and five instructors. The school is a resident establishment, in which trainees spend twenty-five days.

There are other schools in France, but not so highly specialised, to which the National Coal Board also sends instructors.

Finally, the following large schools have for a long time trained mining engineers, to whom the industry is deeply indebted: the *Ecole nationale supérieure des mines* (National Mining College) at Paris, and the one at St. Etienne, and the *Ecole des mines et de la métallurgie* (School for Mines and Metallurgy) at Nancy. The *Ecoles de cadres* (Training Schools for Supervisory Personnel) at Douai and Alès should also be mentioned.

The Mining Regulations lay down for engineers and teaching staff salary scales which ensure them a suitable position from the very outset of their career.

Lastly, in conformity with one of the provisions of the Mining Regulations, a national fund has been set up for the award of scholarships to enable children of mineworkers to attain senior posts in mines.

The French Government has advised the Office that, as a result of the recommendation made by the Committee in paragraph 40 of the resolution, the National Coal Board is collecting documentation on all questions connected with apprenticeship and vocational training in mines, which will be sent to the Office. The French Government also announces that it is in agreement with the Committee's suggestion that exchanges of engineers and technicians should be arranged between the various countries, since such exchanges are likely to be more profitable than those of trainees alone.

India

In India, the composition of the labour force and its considerable mobility have hitherto made it extremely difficult to evolve systematic vocational training, and, for that very reason, the need of such training has become more urgent than in any other country.

In January 1948, the Government placed before the Industrial Committee on Coal Mining, which has already been referred to¹, a plan for the establishment of a vocational training school. The resolution concerning apprenticeship and vocational training, as adopted by the Coal Mines Committee at its 2nd Session, was then submitted to the Chief Inspector of Mines for his approval. The Government advised the Industrial Committee on Coal Mining² that it awaited the remarks of the Chief Inspector of Mines before determining the methods of application of its appren-

¹ See p. 35.

² During its 2nd Session, at Dhanbad, September 1948.

ticeship and vocational training syllabus. The Chief Inspector of Mines was also invited to submit proposals for the improvement of available training facilities for subordinate supervisory personnel.

The school thus planned is intended above all to perfect the skill of the workers in the utilisation of mechanical equipment, which will be more widely used as the Damodar Valley coalfield is developed. The workers will first receive training as electrical and mechanical fitters; they will then be taught the handling of the machines used underground. The capital required for the foundation of this school is assessed at one million rupees, which expenditure will be borne by the Government. The employers, on their side, are willing to send workers to this school and to cover their expenses for the duration of the courses.¹ In conclusion, it should be noted that even now a certain number of instructors intended for vocational training courses for Indian workers go to the United Kingdom to complete and perfect their own training. It was recently learned that 53 such instructors had returned to India after taking courses in various centres in the United Kingdom.²

Netherlands

In the Introductory Report³ submitted to the Committee at its First Session, methods of apprenticeship and vocational training in the Netherlands coalfields were discussed at some length. Experience having proved their effectiveness, they continue to be applied. In a communication to the Office, the Netherlands Government therefore confined itself to giving an assurance that the recommendations of the Committee would be noted in so far as they appeared to be applicable.

Poland

In Poland the authorities have opened a number of vocational schools with a view to supplying a larger number of skilled workers

¹ Statement made by Mr. Carpenter, Employers' representative, at the first meeting of the Industrial Committee on Coal Mining, Dhanbad, January 1948.

² *Iron and Coal Trades Review*, 9 Jan. 1948.

³ *Introductory Report for the Inaugural Meeting of the Coal Mines Committee, London, December 1945* (Montreal, 1945).

to the industry. There are two types of schools: the vocational schools for miners, and the secondary mining schools.

Early in 1948, 53 vocational schools for miners were in action. To be eligible for admission to one of these schools a young person must be not less than fifteen years of age and must have had five years' elementary schooling. The course lasts three years, during which the trainees specialise in one of the various branches of the mining industry.

At the beginning of 1948, also, there were eleven secondary mining schools. The minimum age for admission to one of these schools is also fifteen years, but in this case candidates must have had at least eight years' elementary schooling, since the theoretical teaching is slightly more advanced than in the schools of the other type.

Twelve thousand young men were attending these schools at the beginning of 1948. Trainees are regarded as already belonging to the industry, and as such enjoy benefits and receive pay as provided by the collective agreements now in force in the coalfields.

Methods of vocational training for adults who enter the mine or for the retraining of miners returning from other countries or coming from other industries, vary according to the categories of the workers and the work to be done. Generally speaking, training takes place at the mine, under the guidance and supervision of experienced miners.

Turkey

In Turkey there is a general Act of 1938 which provides for the setting up of vocational courses. The Turkish Government states that in the manner of its application to mines, due note will be taken of the Committee's recommendations. With regard to accelerated vocational training, in view of the fact that most of the men do not work in the mine on a permanent or steady basis, current practice consists in placing new recruits with experienced workers, and this is how in practice they learn the trade.

Union of South Africa

When the Coal Mines Committee, at its Second Session, adopted the resolution concerning apprenticeship and vocational training in coal mines, the representatives of the Government of the Union

of South Africa and of the employers in that country stated that they could not agree to this text because it did not apply to native immigrants, who formed the greater part of the labourforce. The Government of the Union of South Africa recalls the fact that in the Orange Free State and the Transvaal, where most of the coalfields are situated, the laws do not provide for the granting of vocational proficiency certificates to natives.

Although the Committee's resolution may not be altogether applicable to the Union, there are nevertheless rules for the training of mineworkers. White workers are considered as "miners". They in fact constitute the supervisory personnel. No one can be a miner unless he holds a blasting certificate issued by the Government Mines Department. Before receiving this certificate the worker must first obtain a provisional certificate attesting that he has had at least twelve months' experience underground, in a special branch of mining. Not until he has had a further twelve months' practical experience can the provisional certificate be exchanged for a permanent one, by the terms of which the holder becomes a fully-fledged miner.

A worker holding the rank of "miner" in practice becomes a team leader or supervisor over some forty natives, which places him in a position where he can add to his experience of every aspect of the trade. Moreover, possibilities of improving his experience are offered to the miner in all the mining centres. He can attend technical courses and prepare for the various Government examinations which he must take before he is admitted to the responsibility of senior posts. There is nothing to prevent the miner from reaching the highest and best-paid posts.

With regard to the natives, the Government of the Union points out that they cannot be compared to mineworkers in other countries. They constitute a labour force entirely devoid of technical qualifications. In fact, they are and remain peasants all their lives, and the soil is their chief livelihood. By working in the mines—which they never do for longer than eighteen months at a time—they gain some additional means, enabling them to buy cattle and manufactured articles and to pay their taxes. There can therefore be no question of making them undergo apprenticeship or take a vocational training course. However, when a native first enters the mine he passes through a trial period, which may last up to two months, not so much to give him vocational training, but rather to accustom him, by easy stages, to the physical strain of the work.

United Kingdom

The United Kingdom Government has sent the Office information covering the period recently elapsed and supplementing that supplied to the Committee during its 2nd Session, concerning the organisation of apprenticeship and vocational training in British mines.¹ On the whole, there have been no major changes, but there have been developments and adjustments to improve the methods and to make them increasingly suited to the needs of the men and the industry.

All new recruits, before being allowed to begin underground work, must first undergo a course of training lasting at least 264 hours, and for young persons under 16½ years of age this training must be spread over a period of six months. Half this training time must be devoted to practical work, including instruction in underground work. The other half is set aside for courses on mining questions, general education and physical training. The National Coal Board has set up vocational training centres, each of which serves a particular group of mines. The Board is planning, once the essential preparations can be made, to give young persons full-time vocational training over a period of four, or possibly six, months.

For recruits of eighteen years of age and over, the preliminary instruction period has been reduced to 112 hours (three weeks), plus a day or two for "settling-in" at the mine. This measure, which is entirely provisional, was taken to enable the industry rapidly to absorb this class of recruits, the proportion of whom remains high by comparison with young persons under eighteen years of age.

During the first twenty working days underground, the new recruits must remain under the careful supervision of a skilled person. In addition, the regulations provide that no one may be put on to new work without sufficient preliminary training, and that new recruits must remain under supervision until they can do the job unaided.

Before being assigned to the coal face, all new recruits must have completed at least eighty days' underground work and have worked under supervision for a certain time at the coal faces which are entirely reserved for vocational training. This period varies between three months' training for one operation and six months'

¹ Cf. *Utilisation of the Resources of the Coal Mining Industry*, op. cit., p. 145 et seq.

for all-round training. When training is carried out at the coal faces which are only partially reserved for training recruits, the period is prolonged by 50 per cent.

Instructors are responsible for the welfare of the new recruits at work. During their leisure periods they can avail themselves of the various facilities placed at the disposal of the miners by the Miners' Welfare Commission and the Welfare Services of the National Coal Board.

There is a vocational selection centre, where workers already in the industry are selected for courses in mechanics and electricity. This centre, under the management of the National Coal Board, is organised on a national scale in the form of a technical school including three types of course: one of two weeks, one of four weeks and one of six months. The first is intended for machine minders, the second for maintenance mechanics and electricians, and the third aims to teach underground workers to keep the equipment in entirely mechanised sections in good working order.

Workers are selected to attend these courses on the basis of ability, either by the management of the mine, or by the pit consultative committee. They must be eighteen years of age or over. Throughout the course they receive their normal pay, a lodging allowance if they have to live away from home, and their travelling expenses.

The instructors supervising the training of recruits, whether at the centres or in the mine itself, periodically attend courses at a training school for supervisory staff, where courses are also held for practical instructors. The system known as "training within industry" for the training of supervisors is gaining ground. It is intended mostly for skilled workers who are responsible for the supervision of recruits newly assigned to underground work and work at the coal face.

During 1947, 35,123 recruits—28,548 adults and 6,575 young persons—attended the preliminary vocational training centres of the National Coal Board. There are 79 of these centres, which function in the coal basins, each serving a group of mines. Of these, 19 are for young persons only, and 60 are for young persons and adults. They can train 11,000 young persons and 34,000 adults every year. In addition, there are four vocational training centres for adults which can provide board and lodging for 2,500 recruits during the course (Adult Residential Training Centres), and two similar centres for young persons. During 1947, 16,000 recruits for the coal mining industry attended the above-mentioned

four centres for adults. Moreover, it should be noted that during 1947, out of these tens of thousands of new recruits, barely 6 per cent. of the adults and 8 per cent. of the total gave up attending their vocational training courses before they were at an end.

In the case of foreign workers, one of the items of vocational training—the first, if not the most important—was to teach them English, and courses have been organised for this purpose. In July 1948, 4,000 workers had already attended them and a further 3,000 were attending them at the time.

Two excellent ideas must here be mentioned, although they are not directly related to vocational training methods; but in view of their purpose, they served the ultimate aim pursued, namely, to provide for the coal mining industry an increasingly skilled labour force, increasingly aware of its responsibility, which arises from the place which this industry occupies—or should occupy—in the general economy and in social life.

The first of these ideas was the publication of an extremely well presented and edited review entitled *Outlook*, with the subtitle, *On Education and Training in the Coal Mining Industry*. It was originally launched by the founders of the Nuneaton Staff College, and is now published by the National Coal Board, in co-operation with the founders. The launching of this review is based upon an idea which cannot be sufficiently emphasised, namely, that organised vocational training, systematic and complete, is a fairly new venture in the coal mining industry. Using this idea as a starting point, the review not merely serves to maintain contact with the men at the vocational training centres, and to supplement their general knowledge, but also to measure, against the pattern of daily realities which these men meet in the mine, to what extent the training methods are correct, and the points on which they require reinforcement or modification.

The second idea is the Study Week organised at Oxford in August 1948 by the National Coal Board Summer School. Four hundred and fifty men of all ages from every coalfield, and belonging to every conceivable grade in the mining industry, took part for one week in work in which the highest officials in the industry also assisted—administrators, directors, engineers, heads of trade organisations. On this occasion, the men heard all the problems discussed—some of them certainly for the first time—that arise in their industry nowadays: output, absenteeism, collaboration, mechanisation, transport, national production plan, sales market, capital investment, quality of coal, responsibilities

of supervisory staff, and, finally, the present state of the coal mining industry. There is no doubt that a meeting of this sort constitutes—of its kind—a valuable factor in the training of mine-workers.

United States

In the United States, the problems of apprenticeship and vocational training have characteristics entirely peculiar to the country, and differing widely from those in other producer countries. Because there are no recruitment difficulties, and a high degree of mechanisation obtains in the mines, and also because of the working methods, the coal mining industry in the United States is in need above all of workers highly qualified in their respective specialities and of supervisory staff with sound technical training. The ways and means of achieving this twofold aim are not always uniform, but there is no doubt that all efforts are directed towards it.

Certain indications seem to testify to the energy with which this policy of the qualitative development of mine labour is pursued. In Pennsylvania, for example, the number of young men registered in secondary school mining courses in 1947 showed a 13 per cent. increase over the figure for 1946. In Kentucky, the increase for the same year was 43 per cent. In the States of Ohio and West Virginia new vocational courses have been organised, intended for adult miners as well as for juveniles.

In Pennsylvania, in September 1947, the Wyoming High School opened a mining course the curriculum of which will cover three years and which is free and open to all workers in the coal mining industry.

It should further be observed that the mining companies have increased the number of scholarships granted to young persons, to enable them to follow courses in vocational schools or at the large technical colleges.

In these efforts to provide a first-rate and well trained labour force for the coal mining industry, the industrialists and the authorities directly concerned did not confine themselves to seeking out the best teaching methods and the material means of applying them. They also systematically concentrated on the task of clearing the air, from a psychological point of view, of the fog of dislike and misunderstanding which was setting the mine and the mineworkers in a world apart, an accursed world of which the sane and healthy elements of society naturally fought shy.

At the latest Convention of the American Mining Congress, held in April 1948, Mr. Konnerth, Director-General of Works of the Frick Coke Company of Pittsburgh, stressed this aspect of the work which they had undertaken, and which will be pursued further. The main line of his ideas may be summarised as follows¹: Hostile publicity discourages young people. No opportunity is neglected of exaggerating the evils of the industry, intentionally, out of all proportion, as a means to an end. Press, radio and periodicals receive their information from ill-informed and misguided sources, which represent the coal mining industry as a moribund one, backward and degrading, the workers in which eke out miserable lives in an appalling atmosphere, both "in the bowels of the earth" and in the community in which they live. It is high time to modify this picture and to substitute another and more realistic one. The mine, by its very nature, is the young man's field; his efforts are subject to great variations, and his personal ingenuity has plenty of scope. The public must be convinced that mines are not populated by pick-and-shovel-wielding immigrants, but by pure Americans members of a trade as dignified as any other and requiring at the very least as much skill and intelligence.

Public opinion is acquiring a rather less distorted idea of the coal industry and, as has been seen above, the young people themselves no longer remain quite so deaf to the appeal of a calling which, like the sea, has its share of adventure and requires some similar qualities—skill, technical knowledge, team spirit, a sense of responsibility.

In addition, the coal industry is today foremost among American industries in regard to the wages it offers to its workers and the pensions it pays them when they retire.

GENERAL PROBLEMS OF MINERS' HOUSING

In adopting a resolution concerning the general problems of miners' housing, the Committee was well aware that in most coal producing countries efforts were being made by the Governments and the coal mining companies concerned to build houses for mine-workers.

The Committee wished merely to recommend that this action, which had for the most part already been begun, should be extensive

¹ "Attracting Young Men to Coal Mining", by K. L. KONNERTH, in *Coal Mine Modernization—Year Book 1948* (The American Mining Congress, 1948).

and methodically pursued, in other words, that it should be conceived as part of a large-scale programme related to the best rules of town-planning and in excess of the immediate and present needs to be satisfied, while also increasing the standard of comfort of the homes of the mining populations.

The Committee felt that its recommendations should serve, first and foremost, to guide—only where necessary—the Governments and other authorities in shaping their construction policy. This is why it made an effort to define in its resolution the general outlines of a standard building programme, the characteristics which might be observed and the ways and means whereby miners may acquire their homes. Finally, considering that the dispersal of mining populations over an area sufficiently distant from the pit-head is an important factor in improving their housing conditions, the Committee drew attention to the necessity of introducing into building programmes provisions for the building of pit-head baths and dressing-rooms and for the organisation of transport services between outlying centres and the mines.

In the pages that follow, the Committee will find a description of the building programmes, completed, in process of execution, or in the planning stage, for a number of countries.

Australia

The Office has no information on what action is being taken in Australia in regard to the building of houses for miners since the Committee made its recommendations.

This question, however, was dealt with in an extensive report¹ submitted to the Australian Parliament in 1946 by Mr. C. G. W. Davidson, Judge of the High Court of New South Wales, on behalf of a commission of enquiry on the coal mining industry, of which he was Chairman. Since the building situation changes less rapidly than the situation in other fields, it seemed that some information from this report would still be of interest to the Committee.

There is no doubt that the problem of miners' housing exists in Australia, as in other countries. But the question is one not so much of insufficient premises as of an unequal rate of development towards ease, comfort and beauty from one mining area to another. While in certain regions, such as Ipswich and Howard (Queensland),

¹ *Report of the Commission Appointed to Enquire and Report upon the Coal Mining Industry*, 2 vols. (Canberra, 1946).

there are the finest miners' houses in the whole of Australia, in such towns and villages as Cessnock or Kurri-Kurri (New South Wales) the living conditions of miners have not progressed much, and indeed in some cases they have remained stationary for many years.

Although Mr. Davidson regards the situation as a whole as less serious than is generally imagined, he comes to the conclusion that in the interests of the State, the miners and the industry, a concerted building plan should be drawn up to assist the miners in acquiring their own houses. He suggested that, in agreement with the employers, a small sum should be set aside on each ton of coal extracted for the purpose of improving housing conditions and enabling the miners, wherever possible, to acquire their homes through the aid of the co-operative building societies. Lastly, Mr. Davidson advised against any plan for the construction of special mining villages, since he felt that it was much better that the effort towards better housing for miners should be linked with that of the municipal authorities of the villages in the neighbourhood of the mines, for the benefit of all the citizens concerned.

Belgium

The Belgian Government has resolutely embarked upon an ambitious policy for building miners' houses. It has decided to provide twenty-five thousand adequate houses for the forty thousand odd miners recently recruited. The total cost of this programme, which is to be carried out within five years, will amount to five thousand million Belgian francs. A Higher Council for the Building of Miners' Houses, of which the Prime Minister himself is Chairman, and which is composed of representatives of the Ministerial departments concerned with the question, of delegates of the National Association for Cheap Housing, and of the National Association of Smallholders, has been set up to co-ordinate the technical preparatory work for this programme.

By Legislative Order of 28 February 1947, the National Association for Cheap Housing was authorised to raise a loan of one thousand million Belgian francs, guaranteed by the State, to finance the first section of the programme, which provides for the building of seven thousand houses. By the end of January 1948, five thousand permanent dwellings were being built, designed in accordance with the health regulations prescribed by the Ministry of Public Health and the Family.

In August 1948 the Government submitted to Parliament a Bill authorising the National Association for Cheap Housing to raise a further loan of 180 million francs, and the National Association of Smallholders to raise a first loan of twenty million francs to continue the building programme. The Government has shown its interest in this effort on behalf of the miners not merely by guaranteeing these loans, but also by freeing the loan vouchers and any reimbursement premiums of all current or future taxes and duties. In addition, the costs of the interest and amortisation on the loans will be annually added to the budget of the public debt.

In conclusion, it should be pointed out that the coal mining companies have been authorised to divert 40 per cent. of the Re-equipment Fund, which is financed by setting aside 38.50 francs on every ton sold, towards the construction of workers' houses and towards the lodging expenses of foreign workers.

Canada

The most recent information available on mineworkers' housing is that published in the Report of the Royal Commission on Coal.¹ According to the Royal Commission, it is difficult, except in the case of Nova Scotia, to ascertain whether or not the bad reputation of miners' housing is justified, for in this matter one cannot judge by statistics, the more so because where there are statistics dealing with the material characteristics of existing houses, no distinction is made as a rule between those occupied by miners and those occupied by other classes of workers.

In Nova Scotia there are towns like Glace Bay, of more than twenty-five thousand inhabitants, and others such as Sydney Mines, New Waterford, Springhill, Steblarton and Westville, of more than four thousand inhabitants, which may be regarded as purely mining communities, and it was therefore possible to make comparisons between the housing standards of miners living in these towns and the standards elsewhere.

These comparisons show that in the former, 39 to 71 per cent. of the houses are the property of their occupants, against 44 to 60 per cent. in the latter. Twenty-one to 39 per cent. of miners' houses are in need of outdoor repairs, as against 12 to 29 per cent. of other houses. Running water is installed in 87 to 99 per cent. of miners' houses, as against 90 to 96 per cent. of the others.

¹ *Report of the Royal Commission on Coal, 1946 (Ottawa, 1947).*

Forty-seven to 70 per cent. of miners' houses have main drainage, as against 83 to 95 per cent. of the others. Electric light is installed in 95 to 100 per cent. of miners' houses as against 85 to 100 per cent. of the others, while gas or electricity for cooking exists in only 5 per cent. of miners' houses as against 4 to 25 per cent. of the others. Finally, refrigerators—ice boxes or motorised—are found in 24 to 58 per cent. of miners' houses as against 47 to 79 per cent. in houses in other towns.

In the Eastern as well as the Western provinces, the mining companies are in the habit of themselves building mineworkers' houses which they then let to the workers. Naturally, the standard of these houses varies according to the companies, their ideas and their means. At Cape Breton, for example, the houses are spacious and solid, and were modern at the time when they were built, while in a considerable number of other places the companies for a long time built only bunkhouses.

The question of mineworkers' housing arose in Canada, as in a number of other countries, chiefly in connection with the insufficient number of houses, which hindered the recruitment of the necessary manpower. To overcome this difficulty the National Housing Act has been amended so that the mining companies can now obtain loans from the Central Housing and Mortgage Corporation for the building of houses for their workers.

Czechoslovakia

In Czechoslovakia the authorities also devote much attention to the question of housing for miners. By the end of 1948, seven thousand modern flats had been placed at the disposal of the miners, and the construction of a further twenty-five thousand is provided for in the coming five-year plan.¹

France

Immediately after the Liberation, the French Government drew up a building programme for miners' housing, involving both permanent houses, and hutments to meet urgent requirements.

Originally, the programme provided for the construction of forty-five thousand houses, to be built in instalments over a period of ten years. But since then the Miners' Statute has been drawn up and put into application, and in Article 23 it is clearly

¹ *Czechoslovak Life* (Prague), 15 Oct. 1948.

stated that miners shall be entitled to remain in their houses on retirement. This provision has somewhat changed the aspect of the question, and the figure of forty-five thousand houses appeared insufficient to meet requirements; as a result, the programme was extended. The first instalment, consisting of 7,400 huts and 2,400 houses, is complete. By the end of 1948, 4,400 houses and 6,500 huts will have been built.

So far, the mining areas alone have had the benefit of building priority. Very few collective houses have been built; an effort has been made to concentrate on family houses, while taking due note of the requirements of town planning. The coal mining companies have actually endeavoured to impart some character to the houses, to pay attention to their appearance and to provide them with gardens. Outward appearance was very carefully studied, and the rigid alignment of the older garden cities avoided.

The French Government feels that the recommendations made by the Committee in Part III of its resolution, concerning the acquisition of individual property by miners, constitute a solution which has many advantages, but at the same time the Government feels that this solution hardly applies to France, because retired miners retain the right to be provided with a house by the coal companies when their working life comes to an end.

All the mines are provided with shower baths and dressing-rooms. The installations are of the same type in most places. The dressing-rooms are very large halls, with chains for hanging town and working clothes, provided with padlocks. Clothing is dried by hot air. The showers are in large halls, where the miners generally assist one another in cleaning up. Both shower baths and dressing-rooms are well heated.

On certain new mining sites¹ modern installations are planned with two separate cloak-rooms for town and working clothes.

The French Government, in conformity with the Committee's wish, has informed the Office that the National Coal Board is prepared to send it copies of building programmes, plans for their execution and reports concerning housing in mining areas.

India

In India, a plan for building fifty thousand houses for miners was drawn up and is now being carried out under the aegis of the Coal Mines Labour Welfare Fund, which is financed by a tax per

¹ Villaret-aux-Mines and La Mure.

ton of coal despatched. In conformity with one of the provisions of the Act under which this Fund was instituted, the Government early in 1948 set up a Coal Mines Labour Housing Board composed of seven members—including the Chief Inspector of Mines—under the chairmanship of the Commissioner of the Coal Mines Labour Welfare Fund.

The cost of each house is assessed at 3,500 rupees. Since in most cases it was not easy to find sites with a coal-free subsoil for the construction of mining villages within reasonable distance of the mines, it is proposed to build twenty-one thousand houses on ground belonging to the companies, provided that, once finished, the houses shall become the property of the Coal Mines Labour Housing Board. The houses consist of two rooms, domestic conveniences, and two verandahs. It is considered that their standards are above those laid down by the Mines Board of Health.

By means of this immense building programme, it is hoped to raise the standard of living of the miners, but at the same time the authorities are anxious to build up a steady labour force, in its own interests and those of the industry. Here again, the great mobility of the labour force gives rise to a number of problems. The Indian miner by tradition has never paid for his lodging, and there could be no question of charging him rent for one of these new houses. On the other hand, the effort undertaken is pointless unless these houses can serve as dwellings for regular labour in the mine. To overcome this difficulty, it is proposed to make the right of occupation of such a house conditional upon a definite number of days per month of actual work in the mine. Clearly, in this field, workers' organisations have a great educational task before them. If there can be full co-operation between them, the employers and the authorities, this housing programme may become a major factor in the stabilisation of manpower in the mining industry and in placing at the disposal of the mineworkers greatly improved living conditions.

Poland

In Poland the reconstruction programme affects the entire population, because of the devastation caused by the war. Despite this, the authorities are devoting special attention to miners' housing, and in all the mining areas the mineworkers enjoy priority in regard to the occupation of available premises, pending the construction of new houses.

In Upper Silesia, 2,400 prefabricated houses have been placed at the disposal of miners repatriated from Western countries; in the Silesia-Dabrowa coalfield the authorities have made plans to build 2,380 new houses for miners and metal workers. Throughout the country, according to the materials and labour available in each region, the first object is to build.

Turkey

In Turkey, housing for miners constitutes a problem which attempts are being made to solve by means of a five-year plan for the building of workers' garden cities in conformity with the Committee's recommendations, including also the provision of motor transport to convey the workers from their homes to the mine. This plan will be gradually carried out, in so far as the country's financial resources allow.

Union of South Africa

According to the South African Government, the recommendations of the Committee do not apply to that country, for the general conditions bear no resemblance to those in Europe or the United States. Living conditions of European (white) mine-workers in the Union are satisfactory, for, since this is an essential factor in retaining a permanent labour force, it is the first concern of any new or growing mining company. Further, all native labour must be supplied with lodging facilities free of charge. In most cases, the workers are lodged in collective buildings, the plans for which are submitted to the competent Government services for their approval. Ventilation, cubic air space per inhabitant, types of walls and flooring, drainage and heating must conform to the principles of modern building. All the premises are maintained in good condition, regularly repainted and disinfected when necessary. They are provided with shower baths, wash houses, and lavatories in proportion to the number of inhabitants, and everything is kept scrupulously clean.

United Kingdom

In a communication to the Office, the United Kingdom Government indicates that steps have been taken to increase the number of houses in mining areas, where permanent as well as temporary

houses are being built. Every effort is made to supply building materials to the mining areas in which manpower requirements are the most urgent. The responsibility for carrying out the building programmes rests mainly with the local authorities.

As a result of the measures so far taken, it may be said that a considerable proportion of the most urgent requirements have been met. The building programme continues and will continue until all requirements have been satisfied.

With regard to shower baths and dressing-rooms, the Miners' Welfare Commission, which is responsible for installations of this kind, has resumed its building programme. At present 63 per cent. of the miners in the industry have shower baths and dressing-rooms available at the mine itself. On the basis of the work being done, it was hoped that ninety new installations would be ready by the end of 1948, and that work would continue at the same rate during 1949, 1950 and 1951 to complete the 270 installations still to be built before the entire mining population is provided with the necessary facilities.

United States

The Government of the United States has informed the Office that in the matter of miners' housing it was generally recognised that in a certain number of mining communities housing conditions were inadequate. Very considerable progress has, however, been made in the past few years, in regard to construction, in the mining areas as well as in the country as a whole. In addition, mining communities have the benefit of the provisions governing the building of dwelling-houses and facilities for obtaining public credits to this end.

During its Second Session, the Committee was informed by the United States Government member that a special commission had just concluded a sanitary and medical survey of the bituminous coal industry. Since then, the report of that commission has been published¹ and with regard to miners' houses it contains information some of which will not fail to be of interest to the Committee, since the findings of the commission of enquiry often tally with the conclusions reached by the Committee itself.

Out of 2,028 houses inspected, 1,154 belonged to mining com-

¹ U.S.A., DEPARTMENT OF THE INTERIOR: *A Medical Survey of the Bituminous Coal Industry*, Report of the Coal Mines Administration (Washington, 1947).

panies and 874 either to the miners themselves or else to real estate firms or communities. Most of these houses (92 per cent.) are frame-construction, which is widely used in the United States of America, while others are built of brick, tiles, stucco or other materials.

The lifetime of these houses was assessed on the basis of the following eight characteristics, which generally serve to establish normal standards in housing: site location, drainage of the site, roofs, exterior walls, floors, foundations, porches and verandahs, doors and windows. Dividing these 2,028 houses into two groups—the first including houses belonging to the mining companies and the second all the other houses—it is found that 399 (35 per cent.) of the houses in the first group and 622 (70 per cent.) in the second conform to the aforesaid eight characteristics. If we add that a further 220 (19 per cent.) houses in the first group and 102 (12 per cent.) in the second satisfy seven of the eight requirements, it follows that most of the miners' houses inspected were certainly in a reasonable condition. It should, however, be noted that the proportion of these was higher in the second group (82 per cent.) than in the first (54 per cent.).

Considering those houses in which conditions were really bad, we find that in the first group 163 (14 per cent.) of the houses satisfy only three out of the eight requirements and in the second, 61 (7 per cent.).

The age of the houses also led to interesting observations. The enquiry covered 805 houses in the first group and 735 in the second. It appeared that houses built more than fifty years ago were more numerous in the second group (135, or 18 per cent.) than among those built by the mining companies (39, or 4.8 per cent.). A similar tendency appeared in regard to houses built one to twenty years ago; the second group included 120 (16.3 per cent.) and the first only 66 (8.2 per cent.).

Out of these 805 houses belonging to the companies, 5.2 per cent. possessed main drainage and 6.4 a septic tank; in the other 735, main drainage existed in 33.8 per cent., and septic tanks in 7.9.

The Commission's observations further deal with the fact that, generally speaking, miners' houses occupied by the miners themselves are of a better quality and better kept than those belonging to the mining companies. In addition, when the miners' families are distributed among the general population in towns and villages that are not exclusively mining communities, the miner's house

is exactly similar to other houses, for in such cases cleanliness, comfort and modern ideas exercise a beneficial influence.

This inspection led to a series of recommendations on the part of the Commission. The most important of these were: (a) immediate improvement and modernisation of houses belonging to mining companies; (b) reconsideration by the landlords, the tenants and the workers' organisations, of rent contracts, in order to set aside part of the rent for the carrying out of periodical maintenance and repair plans, and also to ensure that the proprietors of the houses derive a normal income from their investments; (c) facilities to be given by the mining companies to their workers for the gradual acquisition of the houses of which they are tenants; (d) assistance to be given to workers by the United Mine Workers of America, either in obtaining long-term loans at a low rate of interest, or in negotiating purchasing contracts; (e) legislation or regulations in coal-producing States laying down minimum standards for building wherever they do not yet exist.

There is no doubt that these recommendations will influence the housing policy for miners in the United States, and the Office will not fail to inform the Committee of any results that may come to its knowledge.

III. General Survey

As already stated, one of the characteristics of the problems confronting the coal mining industry is that they are permanent. Their aspects change according to the period; the degree of urgency of each depends on circumstances, and wisdom and intelligence are needed to see that each is solved in due time.

At its First Session the Coal Mines Committee had to consider the manpower question. It is needless to recall here the extent of the disorganisation caused by the war in regard to manpower for the coal mining industry in all the main producer countries, with the exception of the United States: the causes were age, physical wear-and-tear, moral perturbation, dispersal, to quote only the essential factors.

The most important element of the manpower problem in 1945, then, was its reconstitution and its physical replenishing; and this was the first aspect dealt with by the Committee. All its early recommendations are centred round one overriding consideration, that of recruitment.

It is true that in drawing up the Mineworkers' Charter, the Committee made it its duty to secure an improvement in living conditions for men whose trade was a difficult one, often dangerous, but always underrated and decried. It was inspired by its anxiety at last to do justice to these men, and to see that the community should accord them the place that was lawfully theirs. But the Committee's merit is in no way lessened by acknowledging that it acted as it did in order to enable the industry to find thousands of new workers while retaining those who, disregarding all vicissitudes, had until then remained faithful to it.

In April 1947, at its Second Session, the Committee noted that considerable progress had been made by the industry in regard to recruitment, though all the difficulties of this aspect of the manpower problem had not vanished. In view of the fact that prisoners of war still to be freed had to be replaced, and of the repatriation of foreign miners, the Committee could not yet afford to overlook the recruitment of new workers. While continuing to devote to recruitment all the attention which it still needed, the Committee now began work on apprenticeship and vocational training, which are another aspect of the manpower problem, and next in importance after the numerical building-up of manpower.

Since the Committee's Second Session, recruitment has continued at a rate which, but for a few exceptions, appears satisfactory. In addition, as stated earlier, most producer countries have resolutely embarked on a systematic and rational policy of apprenticeship and vocational training.

In view of the results already achieved or which may be justifiably anticipated, it now rests with the Committee to consider whether recruitment and vocational training could not be left to develop normally, in accordance with the rules based on previous experience, and whether it should not now devote itself to other aspects of the manpower problem, which are today of the utmost importance to the industry.

With regard to recruitment, table II will give the Committee a definite idea of the position of the mining labour force in the different countries which are members of the Committee.

From a purely quantitative standpoint, the table clearly shows that, with the exception of the United States, Germany and the United Kingdom, by July 1948 all the countries had recovered their 1937 manpower figures, and indeed had often considerably exceeded them. The United States, as is well known, is in an excep-

TABLE II. POSITION OF THE MINING LABOUR FORCE REGISTERED IN THE COUNTRIES WHICH ARE MEMBERS OF THE COAL MINES COMMITTEE, AND IN WESTERN GERMANY

Countries	Category	1937 Average	1946		1947		1948	
			Average	% of 1937	Average	% of 1937	End July	% of 1937
Australia	Underground and surface	21,557 ¹	•	—	•	—	•	—
Belgium	Underground	99,976	119,000	119	113,000	113	122,330	122
	Total	142,740	165,000	117	160,000	112	170,607	120
Canada	Underground and surface	24,831 ¹	25,488	103 ²	21,471	86 ²	24,404 ²	98
Czechoslovakia :	Underground	33,897	42,178	125	49,000	146	50,359	150
	Hard coal . . .	43,392	58,644	135	64,000	148	65,220	150
	Lignite	20,761	38,276	129	42,177	142	37,935	128
France	Underground	151,800	212,000	139	216,000	143	213,040	140
	(without the Sarre)	223,660	310,000	142	320,000	142	315,972	140
	Sarre	32,200	22,477	70	29,597	92	39,691	124
	Total	43,750	30,669	70	39,636	91	60,117	138
Germany :	Underground	226,675	160,499	71	193,867	86	226,564	100
	British Zone :	310,292	205,051	66	251,251	81	298,741	95
	Hard coal . . .	16,794	21,096	124	23,496	140	28,136	168
	Lignite	•	12,068	—	13,703	—	15,023	—
India	Underground and surface	201,093 ³	•	—	321,537	160 ⁴	•	—
	Total	20,118	21,000	105	25,000	124	25,958	128
Netherlands . .	Underground	31,069	37,000	119	39,000	126	40,171	133
	Total	93,900	126,000	134	141,000	150	140,342	151
Poland :	Underground	138,505	188,000	136	202,000	146	199,982	145
	Hard coal . . .	116	1,776	1531	•	—	3,045	2626
Lignite	Underground and surface	14,545	29,000	200	28,000	194	25,167	173
	Total	•	•	—	•	—	2,841	—
Turkey ⁵ :	Underground	18,991	31,122	164	•	—	•	—
	Hard coal . . .	29,611	49,211	166	•	—	•	—
Union of South Africa	Underground	•	280,000	—	288,000	—	293,000	—
	Total	778,000	697,000	89	712,000	92	725,000	93
United Kingdom	Underground ⁶	•	•	—	•	—	•	—
	Total	490,771	380,000	77	390,500	80	406,000 ⁷	83
United States ⁷ :	Bituminous . .	99,117	77,500	78	78,500	79	79,900 ⁸	80
	Anthracite . . .	•	•	—	•	—	•	—

Sources: Official national statistics; European Coal Commission; United Nations Economic Commission for Europe (Coal Division); Monthly Statistical Bulletin of the Control Commission for Germany (British Element) Berlin.

• = no figures available.

¹ Average 1939. ² Average 1935. ³ Percentage of 1935. ⁴ June 1948. ⁵ Average 1938. ⁶ Percentage of 1938. ⁷ Workers effectively employed. ⁸ Exclusively workers employed on the coal face. ⁹ End of May 1948.

ional position, and the reduction of manpower never affected that country in the same way as in other countries, nor did it therefore bring in its train the same drawbacks as in other

countries, as will be illustrated later. Germany is recovering from the state in which she found herself after her defeat in 1945; in the hard coal mines, the 1937 level was reached by July 1948, at any rate in regard to underground workers if not for the total manpower¹, and in the case of lignite that level has been passed by a considerable amount. In Chapter III explanation will be found of the causes of this trend towards recovery.

In the United Kingdom the situation is none too satisfactory. Not only are the total manpower figures still 6 per cent. below those for 1937, but the considerable efforts of the Government, which had the full co-operation of the National Coal Board and the National Union of Mine Workers, have failed in their object. The objective was to raise the manpower figures in the mines to 750,000 by the end of 1948.² In view of the realities of the situation, the Government, the Coal Board and the National Union of Mine Workers agreed not to pursue this aim further, since they were certain that there was no hope of reaching a higher figure than 727,000 by the end of 1948 and 736,000 by the end of 1949.³

To a certain extent, however, 1947 gave grounds for hope, in that it reversed the downward tendency of the two preceding years (in 1945 the deficit was 17,351 and in 1946 it was 4,198). But, while during the first thirty-nine weeks of 1947 the intake into the industry exceeded the outflow from it by 22,007, the surplus figure for the corresponding period of 1948 amounted to only 6,828.

Another factor is still disquieting—the composition of the age groups of the workers. For, while in 1937 the average age of the workers in the British coal mining industry was thirty-six years, it had risen to thirty-nine by the end of 1947. At that time there were still twenty thousand workers in the age group of sixty-five years and over. Among the latter are men in their seventies and eighties. In 1947, the proportion of men under twenty years of age amounted to 8 per cent. of the total manpower, as against 14 per cent. in 1938 (56,000 and 109,900 respectively). Among those who today take up mining, the young no longer constitute the largest single group. In illustration of this, table III shows, according to their origin, the number of workers actually recruited, compared with the estimates, for the first twenty-five weeks of 1948.

¹ At the time of going to press it was learned that in October the figures for manpower underground reached 235,000 and the total manpower 309,000, that is, the 1937 level for both underground and surface.

² Cf. *Economic Survey for 1948*.

³ *The Economist*, 20 Nov. 1948.

TABLE III. UNITED KINGDOM : RECRUITMENT FIGURES AND ESTIMATES, CLASSIFIED ACCORDING TO THE ORIGIN OF THE RECRUITS, FOR THE FIRST TWENTY-FIVE WEEKS OF 1948

Origin	Recruitment (weekly average)	Estimates (weekly average)
Ex-miners released from H.M. Forces.	119	96
Ex-miners from other industries . . .	420	288
Miscellaneous sources	700	520
Young persons	160	480
Foreign workers (voluntary European workers)	219	577

Source: Report by Mr. J. Bowman, Vice-President of the National Union of Mine Workers, in charge of recruitment questions.

There is no doubt that young persons still lack enthusiasm for the mines; indeed, to a much greater extent than had been anticipated. But an interpretation of the figures in table III would suggest that there is nevertheless one encouraging factor—the fact that so many ex-miners are willing to return to the mines. Without straining the facts too far, this may be interpreted as a decision on the part of men who are absolutely *au fait* with the situation. It means that working conditions in general in the mines are better today than in the past, and also that they are better than those to be encountered in other industries. Now, it may appear likely that this decision “by action” on the part of the veterans may in the future exert a favourable influence on the younger men in the mining areas, for their hesitation seems to be the outcome of a psychological reaction much more than a final and utter disavowal of the trade of their fathers. This may be a sign of the beginning—on a modest scale but real enough—of a reversal in the psychological condition of the worker which so far, despite nationalisation, appears to have constituted the main stumbling-block in the British coal mining industry.

France and Belgium, in whose coalfields large contingents of prisoners of war were employed, seem to have liberated and replaced them without prejudice to the industry. Judging by the results, it would seem that this operation had been carefully prepared, as recommended by the Committee in 1945; and the prisoners who have become free workers, the foreigners and the displaced persons who replaced the liberated prisoners of war, have received all the safeguards desired by the Committee in the resolutions adopted at its Second Session.

Generally speaking, it may be stated that the labour force has been numerically restored, and indeed is frequently well above the 1937 level. The moment has doubtless come for an attempt to assess the effect of this increased manpower upon output; table IV enables a survey to be made of the development of underground and surface output.

Among the averages for 1946, progress is to be noted in the United States, the United Kingdom, the British Zone of Germany, Poland, Belgium, the Netherlands and Czechoslovakia. In the Sarre, underground output improved, but this is cancelled out by the total for underground and surface, and indeed there is a regression. In France, underground output showed a very slight improvement between 1946 and September 1948 (946 kilos against 927), but the underground and surface average (601 kilos) remains identical for the two periods.

While these figures may throw some light on the development of productivity, they cannot nevertheless give a complete picture of the production potential of each national industry. It was felt that the juxtaposition of certain data in one table would enable the Committee to seek guidance for its future action from the present situation. To this end, table V has been drawn up, dealing with hard coal, in which are found, side by side, for the years 1946, 1947, and for the first half of 1948, or for July 1948, data concerning manpower, production and individual output, set against the data for 1937.

In Czechoslovakia, the Netherlands and Poland individual output increased by 18, 43 and 27 per cent. respectively; but in Belgium, France, Germany and the United Kingdom progress in this field during the years 1946-1948 was much slower and indeed in the Sarre output dropped by 4 per cent.

May it nevertheless be assumed that in these countries where progress was slow the actual output of the coal hewers, considered individually, has developed as indicated by the figures? To assume that this is so involves the risk of an error, since it is known that generally this output is the quotient of the coal extracted divided by the number of underground workers. Now, as is shown by the figures concerning manpower, underground manpower has increased more rapidly than output, and this has naturally resulted in a lowering of the average individual output. Except for the United Kingdom, where the figures are calculated in a different manner and where the drop in the average is less considerable, it cannot, therefore, be said with any degree of certainty

TABLE IV. COMPARATIVE OUTPUT FIGURES FOR HARD COAL MINES: INDIVIDUAL OUTPUT PER MAN-SHIFT;
UNDERGROUND AVERAGE AND AVERAGE FOR THE TOTAL UNDERGROUND AND SURFACE LABOUR

(Metric tons)

Period	United States		United Kingdom		Germany		Sarre		France ¹		Poland		Belgium		Netherlands		Czechoslovakia	
	Bituminous coal	Anthracite	Underground and surface	Underground and surface	British Zone		Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface	Underground and surface
					Underground	Surface												
1937: Average:	4.25	2.54	1.530	1.190	2.002	1.537	1.435	1.054	1.236	0.833	2.413	1.738	1.139	0.782	2.556	1.774	1.837	1.404
1945: Average	5.34	2.50	1.350	1.020	1.140 ^a	0.800 ^a	1.174 ^a	0.821 ^a	0.882	0.555	1.528 ^a	0.906 ^a	0.833	0.524	1.216	0.798 ^a	1.080	0.701
1946: "	5.75	2.58	1.400	1.050	1.190	0.840	1.140	0.835	0.927	0.601	1.608 ^a	1.074 ^a	0.816	0.563	1.583	0.939	1.349	0.928
1947: "	5.90	2.48	1.461	1.090	1.200	0.930	1.161	0.867	0.950	0.591	1.686	1.216	0.860	0.584	1.639	1.098	1.465	1.082
1948: January	—	—	1.494	1.130	1.180	0.900	1.165	0.734	0.958	0.610	1.706	1.259	0.888	0.604	1.650	1.342	1.401	1.047
March	—	—	1.473	1.107	1.180	0.930	1.168	0.735	0.975	0.616	1.759	1.286	0.886	0.606	1.688	1.368	1.432	1.075
June	5.98 ^a	2.58	1.481	1.127	1.280	0.970	1.178	0.756	0.985	0.640	1.828	1.349	0.878	0.602	1.654	1.332	1.439	1.119
July	—	—	1.453	1.087	1.270	0.960	1.234	0.801	0.980	0.602	1.845	1.366	0.865	0.588	1.649	1.341	1.467	1.099
August	—	—	1.453	1.097	1.270	0.970	1.234	0.794	0.938	0.583	1.858	1.369	0.862	0.595	1.681	1.341	1.467	1.089
September	—	—	1.493	1.128	1.290	0.980	1.216	0.771	0.946	0.601	1.862	1.373	0.889	0.623	1.686	1.361	1.460	—
Percentage of 1937 average in September 1948 . . .	141 ^a	102 ^a	97	95	64	62	85	73	77	72	77	79	79	80	66	77	79 ^b	78 ^c

Sources: National statistics; *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*; Economic Commission for Europe (Coal Division).
^a Including lignite until April 1947. ^b Average for December 1945. ^c Average for May-December 1945 and including technical personnel. ^d Including technical personnel.
^e May (provisional figure). ^f Percentage for June 1948. ^g Percentage for August.

TABLE V. DATA CONCERNING MANPOWER, PRODUCTION
AND INDIVIDUAL OUTPUT IN HARD COAL MINES
(1937 = 100)

Countries	Manpower				Production			Individual output			
	Category	1946	1947	July 1948	1946	1947	First half 1948	Category	1946	1947	July 1948
Australia . . .	Underground and surface	•	•	•	116	120	111	•	•	•	•
Belgium . . .	Underground Total	119 117	113 112	122 120	76	82	87	Underground Total	72 72	76 75	76 75
Canada	Underground and surface	103 ^a	86 ^a	•	110	97	103 ^a	•	•	•	•
Czechoslovakia . . .	Underground Total	125 135	146 148	150 150	85	98	105	Underground Total	73 66	79 77	80 78
France	Underground Total	139 142	143 142	140 140	103	101	113	Underground Total	75 72	77 71	78 72
Sarre	Underground Total	70 70	92 91	124 138	59	76	88	Underground Total	79 79	81 82	86 76
Germany: British Zone . . .	Underground Total	71 66	86 81	100 95	40	52	59	Underground Total	59 54	60 59	63 60
India	Underground and surface	•	160 ^a	•	118	121	125 ^a	•	•	•	•
Netherlands . . .	Underground Total	105 119	124 126	128 133	58	70	77	Underground Total	62 53	64 62	65 76
Poland	Underground Total	134 136	150 146	151 145	72	90	100	Underground Total	67 62	70 70	76 79
Turkey	Underground and surface	200	194	173	166	172	200	•	•	•	•
Union of South Africa . . .	Underground Total	164 166	•	•	153	151	170	•	•	•	•
United Kingdom . . .	Underground ^a Total	89	92	93	79	84	88	Underground Total	92 88	95 92	95 92
United States: Bitumin. coal	Underground and surface	77	80	83 ^a	121	140	128 ^a	Underground and surface	136	139	141 ^a
Anthracite . . .	Underground and surface	78	79	80 ^b	116	110	120	Underground and surface	102	98	102 ^c

^a = no figures available.
^b 1935 = 100. ^c Figure calculated over the first five months of 1948. ^d 1938 = 100. ^e Average, Jan.-May. Workers on the coal face only. ^f End of May 1948. ^g End of June 1948. ^h Drop in production due to strikes during the period.

that figures for individual output correspond to the actual output of underground workers.

Since 1943, the United Kingdom, for purposes of calculating output, has made a distinction between underground workers on the coal face and other underground workers. This method has the advantage of making the fluctuations in output more readily noticeable and more closely related to fact. But whether

the discrepancies are more or less considerable according to the method of calculation employed, it is certain that different trends are recorded in the development of manpower, in what is described as individual output and in total production. This clearly shows that certain factors come into play which are much more closely related to the distribution of manpower over the various operations than with the individual effort of the productive worker. As will be seen in Chapter III, the time has come when the coal situation in Europe, which is now improving, no longer demands production at all costs, with complete disregard of certain rules normally enforced in the name of efficient industrial administration. It now rests with the industry to make the best—and consequently the most rational—use of the material it has collected during the crisis. The authorities in certain countries are already gravely concerned about this particular aspect of the manpower question, *i.e.*, the distribution of manpower in the mine, in other words, the attempt at finding an optimum balance of the productive forces with due regard to geological conditions and to working methods now in application or being planned for the future.

When at its First Session (December 1945) the Committee drew up the Mineworkers' Charter, it prefaced it by a declaration stating, *inter alia*, that "these aims are fundamentally dependent on the maintenance of a high standard of productivity on the part of all concerned in the industry". The Committee cannot therefore fail also to deal with this question of the distribution or, more exactly, the redistribution of manpower, which directly affects the productivity of the industry, the more so because certain measures connected with its application sometimes raise extremely difficult social problems.

In France, for example, the Government issued an Order¹ for the reduction by at least 10 per cent. of administrative and surface personnel; but the National Federation of Underground Workers (C.G.T.) made the annulment of that Order an issue in the strike which it called and which lasted from 4 October to 29 November 1948.

Mr. Robert Lacoste, Minister of Commerce and Industry, who is responsible for the nationalised coal mining industry, explained the reasons for this Order by stating that in 1938, for every thousand tons extracted 390 persons were required at the surface, while

¹ Order No. 48-1444 of 18 September 1948, for effecting a saving in the French National Coal Board and the Regional Boards.

in 1948 this number had risen to 810.¹ In April 1947, the French Government and the National Coal Board had already agreed on a 10 per cent. reduction of surface personnel, but apparently without result.

Another example showing the urgency of this question of distribution is the setting-up in the United Kingdom of a Joint Committee on Production (October 1948), which is composed of representatives of the National Coal Board and the National Union of Mine Workers. Its duty is to consider the different factors in production which could be improved with a view to attaining the objectives fixed. In its first report² the Committee recalled the great truth which seemed to have been somewhat forgotten, namely, that coal comes from the coal face and that, wherever manpower is a determining factor, production depends upon the men actually employed on the coal face. The Committee therefore recommended that the number of coal faces should be so increased as to provide work for 297,000 mineworkers by the end of 1948, and for 310,000 by the end of 1949, in order to achieve a production figure for that year of 207,500,000 long tons.³

The Committee's recommendation was accompanied by practical proposals for its application, since it is by no means easy to find sufficient miners suitable for the coal face. Of the Committee's three main proposals, two are intended to free underground workers doing various jobs and to raise them to the rank of coal face workers; the first suggests a provisional reduction of the period of training in the vocational training centres, while the second stresses the point that it is of the utmost importance that local trade union branches should waive their objections to the recruitment of "voluntary European workers" to replace miners promoted to the coal face. The third proposal deals with the need for the speedy completion of the programme for building miners' hostels to provide proper lodgings for new recruits.

It may be seen from this that efforts are being made to find ways and means of promoting a good and effective distribution of manpower, the best being to put each worker in the post that is best suited to ensure an optimum output, which will benefit the workers, the industry and the countries alike.

It is none the less to be feared that all the solutions contemplated are jeopardized by an evil which shows no signs of abating and

¹ Statement before the National Assembly, 19 Nov. 1948.

² "The Report on Production", in the *Colliery Guardian*, 18 Nov. 1948.

³ 1 long ton = 1.016 kg.

which, indeed, in certain cases is spreading despite the measures taken hitherto. That evil is absenteeism. Its extent is viewed with constant alarm by all those who are endeavouring to place the coal mining industry on a sound and healthy footing. It causes apprehension among workers' organisations as well as among Governments and employers.

In table VI figures are shown concerning absenteeism in eight countries. These figures are purely informative, and unduly rigid

TABLE VI. ABSENTEEISM: PERCENTAGE OF ABSENCES COMPARED WITH THE LABOUR FORCE REGISTERED IN HARD COAL MINES

Period	United Kingdom	Germany (British Zone)	Sarre	France	Poland	Belgium	Netherlands	Czechoslovakia
1945: December	17.32	16.2	11.30	17.05	—	15.55	15.30	—
1946: January	18.93	17.9	12.34	16.75	—	15.80	14.90	—
June	14.54	21.7	15.24	12.08	—	16.46	14.10	—
December	14.51	18.8	17.46	13.90	13.90	13.99	13.70	16.00
1947: January	16.69	17.3	18.17	14.20	13.40	14.72	12.50	15.06
June	9.78	16.0	15.53	17.08	15.88	14.70	12.30	17.32
December	11.52	14.2	14.34	15.26	11.58	13.39	11.99	16.70
1948: January	11.31	15.0	12.39	13.17	10.20	14.48	10.59	13.10
March	11.17	13.5	8.06	15.97	12.75	14.66	13.70	13.87
June	10.20	15.3	6.12	14.56	14.56	13.94	13.92	17.70
August	12.96	15.7	5.62	14.72	15.33	14.64	15.50	21.60

Sources: National statistics; European Coal Organisation; Economic Commission for Europe (Coal Division).

comparisons should not be made between one country and another, since the methods of calculating absenteeism are by no means uniform. It might be well in the future to consider and to define what is understood by absenteeism; but in the meantime the figures in table VI, as they stand, constitute a diagnosis of the evil, which proves to be sufficiently grave to warrant the Committee's attention.

The dangers of absenteeism when it exceeds a certain degree have already been stressed.¹ There is no doubt that the output in the mines is doomed to remain at the lowest level while absenteeism remains high. The figures in table VI are averages; in fact, absenteeism has been known to reach figures up to 30 per cent. and more for one team, thereby completely disorganising its work.

¹ Cf. *Utilisation of the Resources of the Coal Mining Industry*, op. cit., p. 127 et seq.

Governments, employers and workers' organisations—separately and together—have made great efforts and immense financial sacrifices to recruit and house labour, and to give it proper vocational training, in order to provide the mining industry with adequate manpower, enjoying satisfactory working and living conditions, and therefore capable of making the necessary effort of production. But, faced with the growth of absenteeism, or even its stabilisation at its present level, it is to be wondered whether the industry may not be compelled in the end to have a supplementary reserve of manpower amounting to 20, 25 or 30 per cent. of the labour force actually employed, in order to enable production to continue, even if the situation should further deteriorate.

This is the dramatic question which arises today in a number of countries, and which Governments, employers and workers' organisations are endeavouring or will have to endeavour to solve.

In France the Journal of the Federation of Christian Trade Unions of Workers and Employees in the Mines (*Fédération des Syndicats chrétiens ouvriers et employés des mines*)¹ recently wrote that it had been agreed that there are "professional absentees" and that it looks as though men went to the mine, but regarded that occupation as secondary; they go in order to reap the benefits inherent in the trade, but systematically refuse to let themselves be integrated with the mining community.

This is probably why the French Government, for its part, has been compelled to issue an Order amending the Miners' Statute.¹ In pursuance of this Order, the following changes have been made in the system hitherto in force: (a) the worker will not come under the Miners' Statute until he has passed through a six months' probationary period, whereas previously he was entitled to all the benefits which it confers immediately on engagement; (b) notice of dismissal—one of the penalties provided by the Statute—given by the employers' representative will become effective immediately, whereas previously it only took effect after agreement with the joint committee on discipline; (c) a new provision has been inserted in the Statute, in the Chapter in which are set forth the grounds for dismissal. It reads as follows: "Any worker who has failed to report for work on six consecutive days without justification, or has been unjustifiably absent for twelve days over a period of six consecutive months, shall be

¹ *L'Echo des mines*, Aug. 1948.

* Order of 18 September 1948 for the increase of output in the mines.

regarded as dismissed, and his name shall be removed from the registers".

Finally, the Government, which felt that the supervision of industrial accidents and stoppages of work due to occupational diseases was not sufficiently strict, issued another Order¹ transferring to the nationalised undertakings themselves the management of the risks of industrial accidents and occupational diseases as far as periods of temporary disablement are concerned. This administration was previously in the hands of the relief funds and the regional mineworkers' organisations.

While in France these different Government measures raised lively protests on the part of the National Federation of Underground Workers (C.G.T.), and provided a reason, *inter alia*, for the October-November strike, at the same time, in the United Kingdom, the representatives of the National Coal Board and the National Union of Mine Workers on the Joint Committee on Production, referred to above in connection with the distribution of manpower, were preparing a joint plan for combating absenteeism.²

The Committee observed that the average rate of absenteeism at the coal face amounted to 14 per cent. for 1948, and proposed that in each pit a joint attendance committee should be set up, composed of two representatives of the management and two representatives of the personnel. This committee would examine the validity of every absence. An absence sheet would be drawn up weekly, bearing the names of those who had been absent without valid excuse during the preceding four weeks. The committee would then question the "delinquents" and give them a first warning. Should the absence be repeated, the offending worker would be fined, up to an amount not exceeding £2. If the worker persisted in being absent without due cause, he would then be dismissed for having failed in loyalty to his fellow-workers. When for good reasons it was not possible to set up a joint attendance committee, the management itself would be authorised to take the necessary disciplinary action.

The fines would be paid into a special fund. If the worker so penalised were not absent again during the twelve weeks following the absence for which he was fined, the amount of his fine would be repaid to him. As for the fines that were not repaid, they

¹ Order of 18 September 1948, amending the Order of 27 November 1946 to organise social security in the mines.

² *The Report on Production, op. cit.*

would be utilised for charitable purposes, to be designated by the local trade union branch.

If this plan is put into operation, the National Union of Mine Workers itself has undertaken not to give any support whatever to workers dismissed for chronic absenteeism.¹

* * *

The redistribution of the labour force and the combating of absenteeism are thus seen to be the two problems that have already emerged from the facts, at any rate in the case of certain countries. They are of such a nature that it will be impossible to settle them unless the social atmosphere is favourable—but does such an atmosphere exist?

Judging by customary standards, *i.e.*, the occupational relationship between employers and workers' organisations, it may generally be said that it does exist. In the coal mining industry very few particularly difficult problems arise between the workers' and the employers' organisations or between the workers' organisations and the State. Freedom of association is generally recognised and its application is fully assured. Working conditions are freely discussed and are laid down in collective agreements. Differences of opinion occasionally arise in connection with the establishment, renewal or application of the collective agreements, but these are generally settled through the now customary negotiation, conciliation or arbitration machinery in accordance with the regulations, which vary from country to country, but which in all cases safeguard the progress achieved in the course of the last few decades in the matter of industrial relations.

From this standpoint, then, the social atmosphere is generally favourable. But it is obviously not possible to be so positive with regard to certain countries, if the relations which develop at the workplace itself—especially underground—between foremen and workers are considered. New problems have undeniably arisen as a result of the structural changes which have occurred in certain

¹ As this report was going to press, it was learned that the regional branches of the National Union of Mine Workers, who were consulted on this plan, rejected it by a majority. It appears that there is disagreement not so much on the substance as on the procedure. In this connection it will be recalled, as already stated in the Introductory Report for the First Session of the Committee, that it is always difficult for staff representatives, elected by the staff, to associate themselves with disciplinary measures against their fellow-workers. As a result of this rejection, the Joint Committee on Production will reconsider its plan in the light of the criticisms of the regional branches.

countries; and these problems are the very factors which have greatly influenced relations between workers and their immediate chiefs. The echoes of this are just beginning to be heard, and they are not always encouraging.

From the social point of view, these problems hitherto have been irritating rather than serious, but their effect upon the development of the industry, and directly upon production, is becoming increasingly noticeable. The Committee will certainly wish also to consider this aspect of general relations, with special reference to the fact that engineers, administrative staff and foremen, on the same basis as the other productive workers, occupy a place and play a part in the industry which it would be extremely dangerous to ignore. To a large extent, the solidity and prosperity of the industry depend on their competence, energy and initiative. In other words, since the welfare of the workers is conditioned by an economically healthy and technically progressive industry, they make a first-rate contribution to the social progress which should benefit all.

In France, where relations at work have become particularly tense, the mining engineers' trade unions claim for their members the free exercise of their own activities in the interests of satisfactory output in the mines, that is to say, they claim that the mining engineers should be allowed to organise the work and to order its execution unhindered and on their own responsibility. They state that the hierarchy should be a pyramid, each step being placed under one chief, who gives orders and exercises any form of supervision that the management may consider necessary. There cannot be dual command, for authority divorced from responsibility cannot exist.¹

The idea of authority, like all other ideas, gradually changes. To judge by their publications, most mining engineers and supervisory staff today show a profound sense of humanity in addition to their sense of technical responsibility. They are at pains to show that they have no intention of contesting the legitimacy of workers' representation on the various joint committees instituted in the mines by progressive social legislation. They simply consider that the fundamental requisite for the smooth running of the industry is that the functions of each individual should be clearly defined, and, once this is done, that all should loyally abide by the definition.

¹ Report of the Mining Engineers' Trade Union, Nord and Pas-de-Calais Branch: "*Sur les moyens d'augmenter la production*", in *Le Creuset*, No. 59, 1 Aug. 1947.

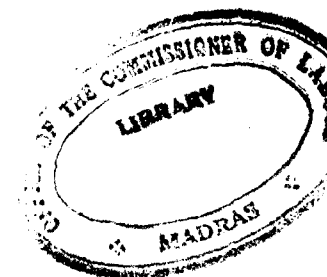
In these circumstances, steps should be taken to ascertain how the social atmosphere at the level of the workplace could be improved. In any case, it is essential that it should improve if output problems are to be efficiently handled, as well as the problems of the redistribution of manpower and of absenteeism.

This is a task which the Committee will doubtless be anxious to undertake in the interests of the successful outcome of its work in general.

* * *

This rapid survey of some of the social aspects now prevalent in the mining industry might lead to the conclusion that in the order of priority of the questions to be tackled by the Committee, recruitment and vocational training—which are pursuing a normal course, in accordance with the rules previously established by the Committee—must now give place to the question of the improvement of the output of the workers by a better distribution of manpower, a considerable reduction of absenteeism, and the establishment of a favourable social atmosphere between overseers and workers at the workplace. In this connection, note should also be taken of the Committee's sentiments, expressed when drawing up the Mine Workers' Charter—namely, that the attainment of the objectives of which it is composed is conditioned above all by the maintenance of a high level of production by those who stand to gain if the coal mining industry prospers.

If the Committee agrees with this view, it will doubtless include the consideration of these different aspects of the manpower problem in its programme for the future.



CHAPTER II

PENSIONS FOR MINERS

I. Comparative Study of Old-Age, Invalidity and Survivors' Pension Schemes for Miners

In conformity with the wishes of the Coal Mines Committee, as expressed during its Second Session, the Office has made a preliminary analysis of the invalidity and old-age pensions schemes now in force for miners. In the course of this work, the Office has endeavoured above all to bring out the general outline of the various national schemes, in order to enable the Committee to make profitable comparisons as a result of its work in this field. This is why in the present chapter the Office has refrained from giving a detailed account of the various methods of application, for these are of such variety and complexity as would have made comparison well-nigh impossible.

The arduous nature of coal mining and the conditions under which it is carried on make heavy demands on the health and strength of those engaged in this occupation. Thus, miners have special needs in the matter of protection against the risks of old age, invalidity and death. The period during which a worker is physically capable of employment in a mine is usually shorter than the working life of other persons. A miner will therefore require a pension before he reaches the age at which other workers retire, but fewer contributions will be paid on his behalf than on behalf of a person who is able to work until he attains the normal pensionable age. The risk of occupational invalidity is high in the mining industry, and the loss of income due to a change of employment is likely to be considerable, because previous training and experience in mining cannot always be utilised in other types of work. Furthermore, miners frequently die prematurely, and a social security scheme in which survivors' benefits are proportional to the length of the insurance period or period of employment will not give adequate protection to their dependants.

For these reasons, most, though not all, of the chief coal producing countries make a distinction between miners and members

of other occupational groups in their social security schemes. Some maintain separate miners' pension schemes, while others, desirous of unifying all branches of social security in the interests of administrative simplicity and efficiency, include miners within the framework of a general scheme, but accord them preferential treatment. Not only is the pensionable age lower than normal in the schemes for miners, or under special provisions of general social security schemes applying to them, but the qualifying conditions and pension rates are fixed to meet their special needs, and bonuses are granted for long service, particularly in underground work. Such measures are designed to provide an incentive to workers to enter an arduous occupation which is essential to the national economy.

SOCIAL SECURITY SCHEMES COVERING MINERS IN DIFFERENT COUNTRIES

In their social security schemes, the Commonwealth of Australia, the United Kingdom and the United States at present make no distinction between persons engaged in the mining industry and persons belonging to other occupational groups.

Five of the Australian States, however, have recently set up pension funds for workers in the coal and oil-shale mines¹, which supplement the benefits granted by the Commonwealth. Under the British National Insurance Act, schemes to supplement benefits may be submitted through the Minister to Parliament for approval and, if approved, may be made compulsory. Thus, under existing legislation, it would be possible to make special provision in respect of miners in the United Kingdom. Additional protection against the long-term risks is sometimes provided by the establishment on a voluntary basis of workers' welfare funds. The maintenance and operation of such funds may be guaranteed in collective contracts between the employers and workers.

In the United States, at the present time, the contracts between the United Mine Workers of America, on the one hand, and the commercial soft coal operators and anthracite operators, on the other, provide for welfare and retirement funds from which retirement benefits are paid to union members and lump sum death grants to the survivors of union members. Benefits are also paid

¹ The New South Wales, Queensland, Tasmanian, Victorian and Western Australian schemes for miners are drafted on similar lines. The New South Wales scheme is the most comprehensive and has therefore been analysed for the purposes of this chapter.

by the U.M.W.A. welfare funds to miners and their families who are in need of financial aid due to wage loss which is not otherwise compensated at all, or adequately compensated, under Federal or State law, and which has arisen from sickness, permanent disability, death or retirement. The validity of this arrangement has been upheld by the American courts. Any benefits paid by the U.M.W.A. welfare funds are additional to the benefits payable under the United States Social Security Act.¹

In Canada and the Union of South Africa, miners and their dependants are eligible for non-contributory pensions and various forms of social assistance on the same terms as other persons. Some miners are included in company provident funds. In South Africa, such funds have been established in all the collieries of certain groups, but participation is confined to monthly-paid European officials and clerks. The cost is shared equally by the employee and the employer. Collieries have recently been admitted to membership of the Witwatersrand Gold Mine Employees' Provident Fund, financed entirely by the employers, and all Europeans employed in a permanent capacity by member collieries are thus protected against the risks of old age, invalidity and death.

Czechoslovakia and the U.S.S.R.² include miners in their general social security schemes, but accord them preferential treatment by way of a low pensionable age, increased benefits and bonuses for underground work. Similarly, in Yugoslavia, persons who have been engaged in heavy work are entitled to special social security benefits. In Poland, miners are included in the general social security schemes, subject to special consideration, and in a number of undertakings there are supplementary pension schemes for miners. A unification of the supplementary schemes is at present under consideration.

While the reforms in the organisation of social security recently made in Belgium and France show a tendency towards the unification of individual insurance schemes, both countries have maintained special schemes for miners. Such has also been the policy of Hungary, the Netherlands, Spain and the occupying authorities

¹ See Section II of this chapter for a further explanation of the United States miners' pensions scheme.

² The material on miners' pensions in the U.S.S.R. has been taken from an article in the *Socialni Revue* (Ministry of Social Welfare, Prague) March 1948, pp. 100-101, and from *Trud*, 12 Sept. 1948. Cf. also *International Labour Review*, Vol. LV, Nos. 3 and 4, March-April 1947, pp. 261-273, and Vol. LVIII, No. 1, July 1948, p. 97.

in Germany, and a provident fund for coal miners is soon to be established on a statutory basis in India.

NATURE OF SOCIAL SECURITY SCHEMES

The schemes applying to miners may be either contributory or non-contributory. In the first instance, the resources from which the benefits are paid are derived mainly from special contributions. In the second instance, pensions are financed from general public revenues.

The majority of contributory schemes are based on the principles of social insurance (Australia—New South Wales scheme for miners, Belgium, Czechoslovakia, France, Germany, the Netherlands, Poland, Spain, the U.S.S.R., the United Kingdom and the United States). Contributions are paid by and/or on behalf of each person covered, and are administered separately from the general revenues of the State. Should any of the contingencies insured against materialise, an insured person who fulfils specified qualifying conditions has a right to benefit. He generally has this right irrespective of his private means, although entitlement to pension may be conditional on retirement from insurable employment (Czechoslovakia—miners; the United States), or account may be taken in computing the pension of any earnings therein (the United Kingdom). Belgium and France vary the sum payable to a miner who has qualified for old-age pension according as he continues to work in the mining industry or not. New South Wales prohibits the employment of a person aged sixty years or more in coal mining and reduces the pension payable to such a person in respect of the earnings in any other occupation plus the earnings of his dependants in excess of a specified amount. In the U.S.S.R., old-age pensions are paid without reduction to persons who continue to work after they have reached the qualifying age for pension.

In Hungary, miners' pensions are financed by a sales tax on the product of the mine paid by the purchaser.

The resources of the Australian general social security scheme are derived from a social security tax and are administered through a special fund. The payment of pensions, however, is subject to a means test.

In Canada and the Union of South Africa, old-age pensions, which are granted subject to a means test, are financed from public revenues. Most of the Canadian provinces also give assistance from public funds to needy widows with children.

SCOPE OF SOCIAL SECURITY SCHEMES APPLYING TO MINERS

Persons engaged in the mining industry in Australia and the United Kingdom are included in the general social security schemes that apply to all residents of these countries, and in the United States miners are insured against old age and death in virtue of their status as employed persons.

In Czechoslovakia, Poland and the U.S.S.R., all employed persons are insured in general schemes, those who have served in the mining industry being granted preferential treatment. In Poland, there are separate schemes for manual and intellectual workers.

The French, German and the Australian State pension schemes for miners apply to wage-earning and salaried employees in mines, whether they work above or below ground. The Belgian scheme for miners includes all workers employed in underground or surface work in mines, but excludes salaried employees in the industry.

A person employed in, or in connection with, a mine who is excluded from the special treatment accorded to miners in the matter of pensions, for example, a salaried employee in Belgium or a person engaged in administrative work in Czechoslovakia, is insured on the same terms as persons employed in other industries in the country concerned.

As a rule, the national legislation on social security applying to persons employed in the mining industry defines the latter term broadly to include not only coal mining but all branches of the industry. The scope of the Australian State pension schemes for miners, however, is restricted to persons engaged in the mining of coal and oil-shale. In the U.S.S.R., workers in any branch of the mining industry qualify for higher pensions than persons engaged in less arduous occupations, and, in addition, miners in the coal industry receive preferential treatment.

RISKS COVERED AND BENEFITS

Most of the chief coal-producing countries insure miners against the risks of old age, invalidity and death (Australia, Belgium, Czechoslovakia, France, Germany, the Netherlands, Poland, the U.S.S.R. and the United Kingdom). The Social Security Act of the United States covers only old age and death.

The New South Wales scheme for miners specifically covers

incapacity only if it arises out of and in the course of employment, but there are provisions for "hard luck" cases which might include invalidity of a non-occupational origin.

Both Canada and the Union of South Africa provide old-age pensions, and the Canadian provinces grant mothers' allowances to needy widows who have dependent children. Neither country has made provision on a national scale to assist persons who become permanently incapacitated before they reach the retirement age (other than the blind).

Old Age

Pensionable Age.

The pensionable age for men is invariably sixty-five years in Australia (Commonwealth), the Union of South Africa, the United Kingdom and the United States, and seventy years in Canada.

A number of other States have taken into account the fact that miners age more quickly than persons engaged in less hazardous and less arduous occupations, and have accordingly fixed a lower pensionable age for them. Under special social security schemes for miners the pensionable age usually varies with the duration of service in the mining industry and the nature of the work performed. The Belgian legislation provides a full pension for miners at fifty-five or sixty years of age, according to the stringency of the qualifying conditions fulfilled. Such a pension may even be awarded before the claimant attains the age of fifty-five years, provided he has to his credit at least thirty years of underground work. In Belgium, other workers qualify for regular old-age pensions on reaching sixty-five years of age. Miners in France and the U.S.S.R. may qualify for old-age pensions at fifty years of age, while male workers in other occupations qualify at sixty. In Germany, the pensionable age for all insured persons is sixty-five years, but they may qualify for a long-service bonus at fifty years of age. Under the general Polish scheme, miners become pensionable at fifty-seven, and other insured persons at sixty-two years of age. In Czechoslovakia and the Netherlands, the pensionable age for miners is fifty-five years, which is five years lower than that for other Czechoslovak workers and ten years lower than that for workers insured under the Netherlands general scheme. In Hungary, miners qualify for old-age pensions at sixty, and other workers at sixty-five years of age. The New South Wales miners' pension fund provides pensions to miners at sixty years of age, five years before they become eligible

under the Commonwealth social security scheme, and to mine managers and clerical workers in the mining industry at sixty-five years of age. The pensionable age under the United States Social Security Act is sixty-five years.¹

Qualifying Period.

States that grant non-contributory old-age pensions ensure that they are awarded only to persons who have contributed to the community through their labour and through the taxes that fall on all inhabitants by requiring that the claimants shall meet qualifying conditions as to residence. In Australia (Commonwealth) and the Union of South Africa, there is a twenty-year residence qualification for old-age pensions. The Dominion Government of Canada grants substantial subsidies towards the cost of the old-age pensions provided by the various provinces, and entitlement to these pensions is conditional on residence in Canada for the twenty years, and in the province concerned for the five years, preceding the claim. Under the New South Wales pension scheme for miners, approximately one-quarter of the cost of which is borne by the State, there is a qualifying period of residence or employment in the State.

Where pensions are provided through insurance and a minimum payment is guaranteed, there must be some qualifying condition as to the duration of insurance in order to protect the fund from unjustified claims by persons who had become employed in an insurable occupation for a short period in order to obtain a pension. Where the rate of pension depends solely on the amount of contributions paid this danger does not arise and no such guarantee is necessary. The qualifying period may be expressed as a number of contributions, as a period of membership in the fund, or as a period of employment in an insurable occupation.

In the United Kingdom and the United States, where no distinction is made between miners and other insured persons, the qualifying period for old-age pension is as follows: United Kingdom: 156 weekly contributions between entry into insurance and attainment of pensionable age, with a yearly average of at least fifty contributions paid or credited (during periods of sickness or unemployment). A person whose contribution record is deficient may be granted a reduced benefit. United States: 40 calendar

¹ Members of the United Mine Workers of America are to be granted pensions at sixty-two years of age by the Welfare Fund set up under their current contracts with the commercial coal operators.

quarters in each of which the claimant earned at least \$50 in insurable employment.

Where special provisions apply in respect of miners, the qualifying period may vary according as the insured person was engaged in surface or underground work, and in some instances it also varies with the age at which the pension is claimed. A number of countries make entitlement to a miner's old-age pension conditional on the maintenance of the status of an insured miner until attainment of pensionable age.

Australia (New South Wales scheme for miners). (a) employment as a mineworker on attainment of pensionable age, or actual work as a mineworker for at least sixty days during the twelve months immediately preceding attainment of pensionable age, and either (i) continuous residence in New South Wales during the five years immediately preceding the date of normal retirement and actual work in a coal or oil-shale mine in New South Wales for not less than three hundred days during such period, or (ii) residence in New South Wales for not less than five years out of the seven immediately preceding the date of retirement and actual work in or about a coal or oil-shale mine in Australia for not less than five hundred days during such period; or (b) actual work for not less than six hundred days in all in coal or oil-shale mining industries in New South Wales during the ten years immediately preceding attainment of pensionable age; or (c) employment in coal or oil-shale mining industries in New South Wales for not less than twenty years in all before attainment of pensionable age.

Belgium. Persons employed in the mines on attainment of pensionable age—miners with twenty years' service underground, fifty-five years; other miners, sixty years—and persons who have ceased such work as a result of an economic crisis, the abandonment of the undertaking in which they were employed, etc., are entitled to full pensions after thirty years' service in the mines. Miners who have been employed underground for thirty years are entitled to pension irrespective of age.

A worker who has been engaged in an occupation other than mining for a year or more during the ten years preceding the attainment of pensionable age is entitled to an old-age pension only if he has resumed normal and regular mining work for at least one year before submitting his claim.

Reduced pensions are payable at sixty years of age after twenty years' service in the mines and at fifty-five years of age after

twenty years' underground service, provided that the claimant has been occupied in industries covered by the scheme for at least six years during the ten years preceding the date of the cessation of work and has been so occupied for at least 264 days during the preceding year.

A miner who has not fulfilled the qualifying period for pension when he attains pensionable age may continue to work until he does so.

Old-age pensions are payable at sixty-five years of age to persons having less than twenty years' service in the mines, provided they are pensioned or pensionable for invalidity or ceased to work in the mines for any of several specified reasons, *e.g.*, an economic crisis, or the abandonment of the undertaking in which they were employed.

(Under the general scheme, full pensions are payable at sixty-five years of age to persons on whose behalf contributions have been paid or credited for the preceding fifteen years.)

Czechoslovakia. A miner's pension is payable at fifty-five years of age, after twenty-five years' insurance in respect of underground work, or after thirty-five years' insurance in respect of work in the mines, at least ten of which have been in respect of underground work, or at sixty years of age after fifteen years' insurance in respect of work in the mines.

(Pensions are payable to workers other than miners at sixty years of age after twenty years' insurance or at sixty-five years of age after at least four years' insurance during the preceding five years.)

France. Normal pensions are payable at fifty years of age after thirty years' service in the mines, at least twenty of which have been in underground work, or at fifty-five years of age after fifteen years' service in the mines. A reduced pension is payable at fifty-five years of age to a claimant having less than fifteen years' service in the mines.

(Persons who have been insured in occupations not considered arduous qualify for normal pensions at sixty years of age after thirty years' insurance.)

*Germany.*¹ The qualifying period for basic old-age pensions is 180 contribution months. At fifty years of age, a miner who has completed 300 months' employment in the mining industry,

¹ Throughout this chapter, the analysis of the miners' pension scheme in operation in Germany refers to the British, French and United States zones.

180 of which have been spent in underground work, is entitled to a long-service bonus.

(Pensions are granted to workers insured under the general scheme at sixty-five years of age, subject to the payment of 780 weekly contributions.)

U.S.S.R. Under the regulations applying to coal miners, pensions are granted at fifty years of age after twenty years' employment in the mining industry, or in the construction of mines, at least ten of which have been in underground work.

(The qualifying period required of persons in less hazardous and less arduous occupations is twenty-five years, and the pensions are not granted until sixty years of age (women, fifty-five).)

Amount of Old-Age Pensions.

The rates of old-age pensions under general social security schemes or special schemes for miners are, as a rule, composite sums, comprising a basic amount and one or more supplements of different types. The basic amount may—

(i) be non-variable (Australia—New South Wales scheme for miners, Czechoslovakia, France, Poland, and the United Kingdom);

(ii) vary with the average wages earned by the individual (Hungary, the U.S.S.R., and the United States);

(iii) vary with the total amount of contributions paid (Belgium);

(iv) vary with the average amount of the contributions paid (the Netherlands);

(v) vary with the years of service (Hungary);

(vi) vary with the needs of the individual (Australia—Commonwealth, Canada, and the Union of South Africa).

The supplements may serve to take account of—

(i) marital status (Australia—New South Wales scheme for miners, Belgium, Hungary, the Netherlands, the United Kingdom and the United States);

(ii) dependent children (Australia—New South Wales scheme for miners, France, Germany, the Netherlands, Poland, the United Kingdom and the United States¹);

¹ There are family allowance schemes in Australia, Belgium, Canada, Czechoslovakia, France, Hungary, the Netherlands, Poland, the U.S.S.R. and the United Kingdom (Cf. *International Labour Review*, Vol. LVII, No. 4, April 1948, pp. 313-333 and No. 5, May 1948, pp. 456-471).

In Australia and France, family allowances are deducted from the supplements in respect of dependent children; in the Netherlands, family allowances are only payable while the breadwinner draws wages; in Poland, the supplements for dependent children are suspended while family allowances are payable; and in the United Kingdom, a supplement is paid only for the first child, subsequent children being entitled to family allowances.

- (iii) average wages earned by the individual (Czechoslovakia);
- (iv) total amount of contributions paid (the Netherlands);
- (v) duration of service or insurance (Belgium, Czechoslovakia, France, and the United States);
- (vi) duration of underground work (Belgium, Czechoslovakia¹, France, Germany, Hungary and the U.S.S.R.);
- (vii) continuation of work after attainment of the pensionable age (Belgium, France, Hungary and the United Kingdom).

Non-contributory pensions are based solely on the current needs of the claimant and consist of a single sum. The maximum payable is reduced in respect of means in excess of a specified amount, which may vary with marital status.

Australia (Commonwealth). A sum considered reasonable by the Director-General of Social Security but not exceeding £110.10s. per year, reduced by the amount of the pensioner's other income in excess of £78 per year and in respect of that portion of the value of his property which exceeds £100. In computing income a deduction is made if the claimant has a child in his care. A person whose property exceeds £750 in value is not entitled to pension.

Canada. \$30 per month provided that the total income of the pensioner including the pension does not exceed \$600 per year (\$1,080 for married person and spouse).

Union of South Africa. A white person, £42 per year; a coloured person or Indian, £21 per year; and a native, £12 per year. The pension is reduced by income in excess of specified amounts and in respect of property and other assets.

The rates of old-age pensions under the various insurance schemes applicable to coal miners are as follows :

Australia (New South Wales scheme for miners). The old-age pension is £2.12s.6d. a week, plus £1.17s.6d. in respect of a dependent wife and 8s.6d. in respect of each dependent child, subject to a maximum of £5.10s.6d. Any portion of the average weekly earnings of the pensioner and his dependants in excess of £2.10s. is deducted from the pension. Where the earnings of a dependant exceed the allowance payable in his respect, they are deemed to be the amount of the allowance in the calculation of the average weekly earnings of the pensioner and his dependants. Payments

¹ The recent Czechoslovak legislation empowers the Government to prescribe by order further increments in respect of periods spent in arduous, hazardous or unpopular employment where this would be to the interest of the national economy.

under the Commonwealth social security scheme are deducted from the corresponding pension and allowances granted under this scheme.

Belgium. The annual pension payable to a miner who ceases to be gainfully occupied is fixed according to the nature of his work and the number of years of service, exclusive of those in excess of thirty, in the mining industry, as follows : single person, 528 francs, married person, 795 francs, per year of underground work; single person, 429 francs, married person, 650 francs, per year of surface work.

The annual pension payable to a miner who continues to be gainfully occupied is calculated by one of the two following methods, the amount paid being whichever is the greater : (1) 80 francs per year of service for a single person and 115 francs per year of service for a married person, exclusive of years of service in excess of 30, or (2) an annuity derived from the sum accumulated in the pensioner's individual account, plus a bonus varying from 110 to 3,520 francs with his age, type of work, marital status and, in the case of a surface worker, sex.

These pensions consist of a basic amount derived from the contributions credited to the account of the insured person and various supplements.

Where a worker, entitled to an old-age pension has continued to work and thus to contribute, the additional contributions are repaid at sixty-five, or, in some cases, sixty years of age, in a lump sum.

A miner who first qualifies for pension on reaching sixty-five years of age is entitled to an amount equal to the pension payable under the general scheme.

(The pension payable under the general scheme for wage earners and salaried employees consists of an annuity based on the contributions of the insured person plus a bonus and supplements, which for a married man born in 1883 amount to 17,200 francs annually and for a single man born in the same year to 11,200 francs.)

Czechoslovakia. The annual pension comprises a basic sum of 8,400 crowns, 20 per cent. of the pensioner's average annual wages during the last five years, or during the last ten years, whichever period yields the higher average¹, and an increment at the rate of 1.2 per cent. of his average annual wages for each year

¹ There are special provisions to cover the calculation of average annual wages during a transitional period following the introduction of the new social security scheme in 1948.

of service in the mining industry (2 per cent. for each year of underground work). The minimum annual pension is 14,400 crowns and the maximum 90 per cent. of average annual wages. The pension may be increased by 50 per cent. if the pensioner is totally incapacitated and requires the assistance of another person.

(Old-age pensions for workers other than miners are calculated on the same principles, but the incremental rate is 0.4 per cent. of average annual earnings for the first ten years, 0.8 per cent. for each additional year before the claimant reaches sixty years of age and 2 per cent. for each year of insurance thereafter. The minimum increment is fixed at 8 per cent. of average annual earnings. The minimum old-age pension for workers other than miners is 9,600 crowns and the maximum 85 per cent. of average annual earnings. The pension may be increased by 50 per cent. if the pensioner requires the assistance of another person.)

France. At fifty-five years of age or over, after thirty years' employment in mines, or at fifty years of age, after thirty years' employment in mines, at least twenty of which have been in underground work, the annual pension comprises a basic amount of 84,000 francs, and 2,800 francs for each year of service in excess of thirty rendered by the claimant before he reached fifty-five years of age; at that age after at least fifteen years' employment in mines, the annual pension comprises a basic amount of 42,000 francs and 2,800 francs for each year of service in excess of fifteen.

Where an insured person reaches the age of fifty-five years without having fifteen years' employment in mines, he is entitled to a reduced pension, or to a lump sum, in proportion to his contributions.

Old-age pensions are increased by 0.6 per cent. for each year of employment underground.

A miner aged at least fifty-five years who has qualified for a pension by thirty years' service and who continues to work in employment covered by the scheme does not draw the pension, but is entitled to an allowance, in addition to his wages, at the following rates per year: 63,200 francs for miners who have worked for at least twenty years underground; 52,680 francs for those who have worked for at least ten years underground; 42,000 francs in all other cases. The periods during which this allowance is payable do not entitle the miner to an increase in the rate of pension in respect of years of service.

A special allowance is payable to a miner who has not reached fifty-five years of age but is credited with thirty years' service, at least twenty of which have been in underground work, and who continues to work in mines. A reduced allowance is payable to a person still employed in mines who has been so employed for at least thirty years, at least ten of which have been in underground work. The rates of this allowance per year are as follows:

	Miners under 50 years of age	Miners between 50 and 55 years of age
From ten to twenty years' underground work	31,560 frs.	31,560 frs.
More than twenty years' underground work	42,000 frs.	63,200 frs.

The periods during which these allowances are payable do not affect the miner's right to an increment in respect of years of service.

Old-age pensioners may claim an allowance of 1,895 francs a month for each dependent child. This allowance is reduced if the parent is entitled to a family allowance.

(Under the scheme for workers in non-agricultural occupations, the pension payable at sixty years of age after thirty years' service in occupations not considered arduous amounts to 20 per cent. of the basic annual wages of the insured person. The pension is increased by 4 per cent. of the pensioner's basic annual wages for every year of service after the age of sixty years.)

Germany. The annual old-age pension consists of 2.4 per cent. of average annual earnings, excluding any portion in excess of 600 marks per month, for each year of insurance, plus bonuses for each year of underground work in excess of ten and allowances at the rate of 120 marks for each dependent child. The bonuses consist of 12 marks for each year of underground work after the first ten, 24 marks for each of the following ten years of underground work and 36 marks for each additional year of underground work. The minimum annual pension is 600 marks and the maximum 80 per cent. (90 per cent. where increments in respect of underground work are payable) of previous average earnings, excluding any portion in excess of 600 marks per month.

(Under the general scheme for wage earners, the pension consists of a basic amount, plus increments of 1.2 per cent. of previous average earnings, excluding any portion in excess of 600 marks per month, per year of insurance and allowances at the rate of 120 marks for each dependent child.)

U.S.S.R. The pension of a coal miner is equal to 50 per cent.

of his last wages, excluding amounts in excess of 600 roubles per month.

(Regular pensions for other workers vary from 50 to 60 per cent. of previous wages, excluding amounts in excess of 400 roubles per month. In certain circumstances additional bonuses are paid.)

United Kingdom. The full old-age pension amounts to 26s. a week reduced by any earnings in excess of 20s. a week while the pensioner is between sixty-five and seventy years of age. If the pensioner works between these ages, he may continue to pay contributions and thus qualify for a pension increased by 1s. a week in respect of every twenty-five contributions after attainment of the retirement age; 16s. a week is paid in respect of a wife over sixty years of age and 7s. 6d. a week for the first child (subsequent children being covered under the family allowance scheme).

United States. The old-age pension is calculated as follows: 40 per cent. of the first \$50 of the average monthly wage plus 10 per cent. of the next \$200, or any fraction thereof, this amount being increased by 1 per cent. for each year in which the pensioner had received wages of \$200 or more (primary benefit); 50 per cent. of the primary benefit is payable in respect of a wife aged sixty-five years and of each dependent child. The maximum amount payable per month in respect of one family is \$85, or twice the primary benefit, or 80 per cent. of the average monthly wage, whichever is the least.

Invalidity¹

Definition of the Risk.

Nature of incapacity. The insurance schemes under consideration, with the exception of that applying in the United States, provide pensions to insured persons who have become physically incapable of carrying on any gainful occupation which may reasonably be expected of them (general invalidity).

The nature of their occupation makes heavy physical demands on miners. For reasons of health, a miner may be obliged to interrupt his normal career in the mining industry or he may suffer a diminution in earnings corresponding to a reduction in

¹ Exclusive of invalidity arising from an employment injury. It should be noted that invalidity pensions are not, as a rule, granted in cases where the invalidity is due to an employment injury for which compensation is payable. The New South Wales pension scheme covers incapacity due to an employment injury but a person insured therein is not entitled to a pension for any period in respect of which he is entitled to compensation under the Workers' Compensation Act.

occupational status (occupational invalidity), although he is not actually incapacitated for all forms of gainful employment. If a miner is forced to change his occupation, he is likely to experience a financial loss. Thrust into work for which he has no training, he is at a considerable disadvantage in competition with workers of his own age who have years of experience and seniority to their credit, and his wages in his new occupation will probably be lower than those he had previously earned. Czechoslovakia, France, Germany, the Netherlands and the U.S.S.R. offer miners protection against loss of income due to occupational invalidity.

Basis of comparison. The risk covered by invalidity insurance is loss of, or reduction in, earnings due to incapacity for work. Thus the right to invalidity pension is based on a specified degree of incapacity for work. In some schemes, incapacity for work is defined as incapacity for any gainful occupation. More often it is defined less strictly as incapacity to continue previous employment or to perform work that may be considered to be comparable. The degree of incapacity is usually determined on the basis of the loss of, or reduction in, earnings which the claimant has, or is deemed to have, suffered. The basis of comparison in assessing the degree of incapacity may be either the previous earnings of the claimant or the earnings of a normal wage earner having the same occupational skill or the same experience.

Degree of incapacity. Under the legislation of a number of countries, an insured person may draw an invalidity pension even if he still retains a certain capacity for work. In Australia (Commonwealth) an invalidity pension is granted if the claimant is incapacitated to the extent of 85 per cent. or more. The compensable degree of incapacity is 50 per cent. in Czechoslovakia and in Poland. In France, incapacity of $66\frac{2}{3}$ per cent. gives rise to a general invalidity pension and incapacity of 50 per cent. to an occupational invalidity pension, but if a general invalidity pension has been awarded it continues to be payable so long as the incapacity is at least 50 per cent. The Belgian legislation does not specify the minimum degree of incapacity which entitles the victim of an injury to an invalidity pension, but stipulates that no pension shall be granted to a person who earns more than 1,000 francs a month in any type of employment. In the United Kingdom, benefit is payable in respect of incapacity only if it is total.

Duration of incapacity. Invalidity pensions are granted in respect of incapacity that is likely to be permanent or of long

duration. Sickness cash benefits are paid during an initial period of incapacity. Only after the right to such benefits has been exhausted (Belgium, Czechoslovakia, the Netherlands) or on the establishment of invalidity, which may occur before the right to sickness benefit has been exhausted (France, the U.S.S.R.) are invalidity pensions awarded. The British National Insurance Act makes no distinction between temporary and permanent incapacity and provides sickness cash benefits without limit in duration. In a number of countries the rate of general invalidity and of old-age pensions is the same (Australia, Czechoslovakia and Germany), while in others (Belgium and France) invalidity pensions are replaced by old-age pensions when the recipient attains pensionable age.

Qualifying Period.

The award of an invalidity pension is conditional on the completion of a qualifying period of residence or insurance. In view of the nature of the risk the qualifying period is shorter than that required in the case of old-age pensions. In some cases it varies in length with the age at which the invalidity occurs.

Australia (Commonwealth). To qualify for an invalidity pension in Australia, the claimant must have been continuously resident in the Commonwealth for at least five years. In the case of a person who was permanently incapacitated on the date of his arrival in Australia, the residence qualification is twenty years.

Belgium. There is no qualifying period if the insured person has been engaged in occupations covered by the scheme during his entire occupational career (periods of other employment amounting in all to less than one year are discounted). Where the claimant has been employed in occupations other than mining for a year or more, the qualifying period of insurance in the miners' scheme varies from ten years up to forty years of age to twenty years at fifty-five years of age or over, with at least fifty days' work in the mining industry in the year preceding the onset of the sickness which gave rise to the invalidity.

(Under the general scheme, an incapacitated person is entitled to an invalidity pension on the expiry of sickness cash benefit; the payment of sickness cash benefit is conditional on the transmission by the insured person to the insurance carrier of a contribution voucher in the course of the month previous to the certification of the illness.)

Czechoslovakia. The right to a general invalidity pension is

conditional on a qualifying period of insurance of four years during the last five years.

(The qualifying period is the same for other workers.)

The right to an occupational invalidity pension is conditional on employment in underground work for the last five years, or for at least half the period that has elapsed since the claimant became insured against old age.

France. The qualifying periods of employment for a general invalidity pension are (1) two years' employment in the mining industry, and (2) 420 or 500 days' work, according as the miner was engaged on the basis of a five- or six-day week, during the two years preceding the illness or accident which rendered the claimant incapable of work.

(The qualifying period for an invalidity pension under the general scheme for non-agricultural workers is sixty hours' work as an employed person in the course of the quarter preceding the onset of the illness or accident giving rise to invalidity.)

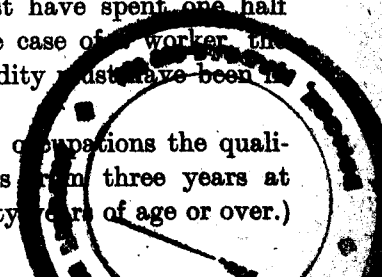
The qualifying periods of employment for an occupational invalidity pension are (1) three years' employment in the mining industry, and (2) 420 or 500 days' work, according as the miner was engaged on the basis of a five- or six-day week, during the two years preceding the illness or accident which rendered the claimant incapable of carrying on his usual occupation.

Germany. The qualifying period for a general or occupational invalidity pension is sixty contribution months.

(Under the general scheme, the qualifying period for invalidity pension is 250 contribution weeks.)

U.S.S.R. The qualifying insurance period for invalidity pension varies from two years at twenty years of age to fourteen years at sixty years of age or over in the case of persons who have been engaged in underground work or in other dangerous occupations. In order to qualify for an invalidity pension under the regulations applying to the coal mining industry, a foreman or member of the engineering staff must have spent one half the qualifying period of insurance in the coal mining industry, or construction of mines, and a worker must have spent one half such period in underground work. In the case of a worker in last employment before the onset of invalidity must have been in an underground occupation.

(For persons engaged in non-dangerous occupations the qualifying period for invalidity pension varies from three years at twenty years of age to twenty years at sixty years of age or over.)



United Kingdom. The requisite number of weekly contributions for full sickness benefit is twenty-six with fifty contributions paid or credited in respect of the last contribution year before the benefit year; where the contribution record is deficient, a reduced benefit may be paid. Sickness benefit is unlimited in duration provided 156 weekly contributions have been made; otherwise it is payable for fifty-two weeks.

Amount of Invalidity Pensions.

General invalidity pensions are calculated on the same basis as old-age pensions in Australia, Czechoslovakia, Germany, the Netherlands and Poland. Examples of the rates of general and occupational invalidity pensions for miners in a number of countries are given below.

Belgium. For a married person, the annual invalidity pension is 300 times half the daily wage, subject to a maximum of 19,500 francs for a surface worker and 23,850 francs for an underground worker in a coal mine. For a single person, the rate is 200 times half the daily wage, subject to a maximum of 12,870 francs for a surface worker and 15,840 francs for an underground worker in a coal mine.

(Under the general scheme, an invalidity pension is computed in the same manner. The pension paid plus any earnings or other income must not exceed 85 per cent. of the daily remuneration in the occupational category to which the insured person belonged.)

Czechoslovakia. Occupational invalidity pensions are computed in the same manner as old-age pensions.

France. The annual rate of the general invalidity pension is 84,000 francs, increased by 16,800 francs if the victim is totally disabled and requires constant attendance. If the pensioner has had more than thirty years' service in the mines, the minimum invalidity pension is the amount of the old-age pension which would correspond to his years of service.

(For other non-agricultural workers, the pension rate in respect of total incapacity is 40 per cent. of the average annual remuneration, increased by 20 per cent. if the victim is totally disabled and requires constant attendance. In cases of partial incapacity, the rate is 30 per cent. of the average annual remuneration.)

The annual rate of the occupational invalidity pension is 5,700 francs, plus 1,900 francs for each year of service in excess of three. The pension may not exceed the difference between the pensioner's previous wages and the wages payable in the occupa-

tional category in the mine in which he would have been classified in view of his reduced capacity, at the time of the certification of invalidity.

Invalidity pensions are increased by 0.6 per cent. for each year of employment underground.

Germany. The annual pensions payable in cases of occupational invalidity consist of 1.5 per cent. of earnings, excluding any portion in excess of 600 marks per month, for each year of insurance, plus bonuses for each year of underground work in excess of ten, and allowances at the rate of 120 marks for each dependent child. The annual bonuses consist of 12 marks for each year of underground work after the first ten, 24 marks for each of the following ten years of underground work, and 36 marks for each additional year of such work. The minimum annual pension is 360 marks and the maximum 80 per cent. (90 per cent. where bonuses in respect of underground work are payable) of previous average earnings, excluding any portion in excess of 600 marks per month.

U.S.S.R. Under the regulations applying to the coal mining industry, a person totally incapacitated but not requiring the assistance of another person is entitled to a pension calculated as follows: a fraction (49 to 80 per cent., according to years of service) of the first 600 roubles of monthly wages, plus 15 per cent. of any portion of earnings in excess of 600 roubles per month. An increment (10 to 25 per cent. of the pension) is paid in respect of a period of work of three or more years' duration in one mine. A totally incapacitated person is entitled to a higher pension if he requires the attendance of another person. A reduced pension is paid in cases of partial incapacity.

(For other categories of workers, the pension is a fraction of the basic wage varying with the period of employment, the category of employment and the degree of incapacity. The amount payable is generally lower than that payable to a miner incapacitated to the same degree and having the same employment record.)

United Kingdom. The full benefit payable in respect of incapacity for work is 26s. a week for a single man or woman and for a married man. The benefit is 16s. a week for a married woman who is gainfully occupied and insured. An allowance is payable for an adult dependant at the rate of 16s. a week and for the first child at the rate of 7s. 6d. a week (subsequent children being covered under the family allowance scheme).

*Death*¹

Social security schemes compensate widows, particularly those with dependent children, and full orphans for the economic loss occasioned by the death of the breadwinner. This has been done either by the provision of assistance in needy cases (Australia and the Canadian provinces) or by survivors' insurance (Belgium, Czechoslovakia, France, the Netherlands, Poland, the U.S.S.R., the United Kingdom and the United States). In addition to pensions, funeral or other lump-sum death grants are provided under a number of social security schemes; only the pensions payable on the death of an insured person are described below.

Survivors Entitled to Pensions.

The Canadian provinces and the United States grant allowances to mothers who are without adequate means of properly maintaining dependent children. In Canada, family allowances are also paid in respect of all children.

All survivors' insurance schemes cover widows, subject to the fulfilment of qualifying conditions, such as incapacity, attainment of specified age, specified minimum duration of marriage, and existence of children of the marriage. The payments cease if the widow remarries. In the United Kingdom, a widow who immediately before reaching sixty years of age was drawing a widow's pension qualifies for a retirement pension by virtue of her late husband's insurance. Survivors' pensions are paid in respect of his children, often widely defined to include not only legitimate children but also illegitimate children, adopted children and, in some cases, any child who has been maintained by the deceased person. The pension ceases when the child reaches a specified age. The age-limit is usually raised in cases where the child is continuing his studies. Some insurance schemes provide pensions to parents, grandparents and brothers or sisters who had been dependent on the deceased person, but as a rule, pensions are granted to such persons only if the deceased leaves neither widow nor orphans.

The following survivors are covered in the schemes applying to miners in the countries under consideration :

Australia (Commonwealth). A widow who (1) has the care of one or more children, or (2) is over the age of fifty years, or (3) is indigent.

¹ Exclusive of deaths resulting from an employment injury.

Australia (New South Wales scheme for miners). Pensions are paid to the widow (or dependent female who is either caring for a child of the deceased person or is a member of his family) and orphans (or brothers and sisters under sixteen years of age) of a person who was in receipt of a pension under the scheme or of a contributor whose death was due to his employment as a mineworker. At the discretion of the Pensions Tribunal a pension may be granted to the widow of any miner.

Belgium. The social security scheme for miners provides a survivor's pension for the widow of an insured or pensioned miner and pensions for orphans under sixteen years of age who had been dependent on him, provided such orphans do not earn by their personal labour more than a specified amount (875 francs in December 1947).

A widow's old-age pension is granted at sixty years of age, provided the widow's marriage to an insured or pensioned miner (or successive marriages to more than one miner) had lasted for at least ten years and had taken place at least five years before the cessation of insurance contributions on behalf of the deceased husband; these qualifying conditions are waived if there is a child of the marriage.

Czechoslovakia. A widow is entitled to a survivor's pension during the first year of widowhood, provided that she has been married to the insured person or pensioner for at least one year (two years if her husband was over sixty years of age at marriage) or that there is a child of the marriage, and thereafter is entitled to a pension if and when she fulfils at least one of the following conditions: invalidity, attainment of forty-five years of age, duration of marriage of at least fifteen years, or responsibility for a child entitled to an educational grant. A widow who has been in receipt of a pension for at least six years maintains her right to pension even if she ceases to fulfil any of the above-mentioned qualifying conditions. Full orphans and the following half orphans—fatherless orphans who are not supported by the widow of the deceased person, motherless children who had been principally dependent on the insured mother, and motherless illegitimate children whose mother had been insured—are entitled to survivors' pensions until they reach the age of sixteen years (twenty-five if continuing their studies).

France. A pension is granted to the widow of an insured or pensioned miner. If the latter died while still employed, or gave up his work in consequence of invalidity entitling him to pension,

it suffices that the marriage was concluded before the date on which he ceased to work in the mines. Otherwise the widow is entitled to pension only if her marriage had taken place at least three years before her husband ceased to contribute under the miners' social security scheme, or if a child had been born to the couple or is presumed to have been conceived at the time when the husband ceased work. Orphans, whether legitimate, acknowledged, illegitimate foundlings, or wards of the State of whom the affiliated person was the guardian, are entitled to pensions until they reach sixteen years of age.

Germany. The widow of a miner is entitled to a full pension if she (1) is an invalid, (2) has reached the age of sixty-five years, (3) has the care of two children under six years of age entitled to orphans' benefit, or (4) has reached the age of fifty-five years and has borne four children.

Alternatively, the widow of a miner is entitled to a widow's pension, irrespective of age or capacity for work.

Orphans' pensions are payable in respect of children of the deceased miner under eighteen years of age.

U.S.S.R. The following classes of relatives of the insured person share the survivors' pension: children, brothers and sisters under sixteen years of age (students under eighteen years of age); disabled children, brothers and sisters, irrespective of age if they became disabled before reaching sixteen years of age (students, eighteen years of age); disabled husband or wife, and parents who are disabled or have attained pensionable age but are not in receipt of old-age pensions; parents, wife or husband, whether able to work or not, if they have in their care sisters, brothers or children under eight years of age who are survivors of the deceased insured person.

In cases where both parents are insured and one of them dies, orphans' pensions are paid regardless of the earnings of the surviving parent, and they are also paid in cases where the children were not actually supported by the deceased parent.

United Kingdom. Any widow whose deceased husband had fulfilled the qualifying condition is entitled to a widow's benefit for the first thirteen weeks of widowhood. Thereafter, a widow who has a dependent child is entitled to a widowed mother's allowance. If, on the termination of her right to this allowance, the widow is over forty years of age and not less than ten years have elapsed since her marriage, she is entitled to a pension. Pensions are also payable to widows over fifty years of age at widowhood

who had been married for not less than ten years, and to widows who are incapable of self-support by reason of mental or physical infirmity. A person caring for a child, both of whose parents are dead and at least one of whom had been insured, is entitled to a guardian's allowance, but not to a family allowance, in respect of the child.

United States. Under the Social Security Act, survivors' pensions are payable to the widow of an insured person who is sixty-five years of age or over, or who has in her care one or more children under eighteen years of age.

An orphan child of the deceased person is entitled to a pension until he reaches eighteen years of age, marries or is adopted.

Where the insured person leaves neither a widow nor children, each of his parents aged sixty-five years or over is entitled to a survivor's pension. If none of the aforementioned survivors exists, a lump sum benefit is paid to other survivors or to the person who has paid the funeral expenses.

Qualifying Period.

The right to survivors' pensions under non-contributory pension schemes is conditional on the claimant fulfilling residence qualifications. The latter are less stringent than those required in the case of old-age pensions.

The Social Services Consolidation Act, 1947, of Australia stipulates that the claimant of a widow's pension must have resided in the Commonwealth for at least five years immediately preceding the claim. All but one of the Canadian provinces grant mothers' allowances subject to specified periods of residence which vary from one to three years.

The insurance schemes usually make the right to survivors' pensions conditional on the completion of a qualifying period of insurance or service by the deceased breadwinner.

Australia (New South Wales scheme for miners). No qualifying period is specified.

Belgium. Entitlement to the survivor's pension that is granted to a widow irrespective of her age is conditional on the husband's having been occupied in the mining industry for at least one year.

Entitlement to the old-age pension that is granted to a widow on reaching sixty years of age is conditional on the husband's having had twenty years' service in the mining industry.

(Under the general scheme there is no qualifying period for the portion of the pension based on the contributions of the deceased

husband, but the bonus and supplement are only granted if the statutory annual payments have been made regularly. Furthermore, the payment of the supplement is subject to qualifying conditions varying with the date of birth of the deceased husband and his age at death. In most cases contributions must have been paid or credited on behalf of the deceased husband for the fifteen years preceding his death.)

Czechoslovakia. A pension is granted to the survivors of a miner who had been insured for four of the five years preceding his death.

(The qualifying period is the same for insured persons belonging to other occupational groups.)

France. If the deceased husband was employed in the mines at the date of his death, the award of a widow's pension is conditional on his having had three years' employment in the mining industry with 420 or 500 days' actual work, according as he was engaged on the basis of a five- or six-day week, in the course of the two years preceding his death. If the deceased husband was no longer employed in the mines at the time of his death, the award of a widow's pension is conditional on his having had fifteen years' service in mines, unless he was in receipt of an invalidity pension.

Orphans' pensions are granted where the deceased person had been employed in a mining undertaking for the two years preceding his death, with 470 or 528 days, according as he was employed on the basis of a five- or six-day week, of actual work in a mine during that period. Allowances are also paid to the orphans of an affiliated person who was in receipt either of an invalidity pension or of an old-age pension corresponding to not less than fifteen years' employment in the mining industry.

(Under the general scheme, a pension is, in certain circumstances, awarded to the widow of an old-age or invalidity pensioner or of an insured person who had been registered for a year at the beginning of the quarter in which he died and had to his credit 240 hours of work or unemployment during this year.)

Germany. Sixty monthly contributions.

(The qualifying period is the same under the general scheme.)

U.S.S.R. Pensions are granted to the survivors of an insured miner who, at the time of his death, had fulfilled the qualifying period for an invalidity pension.

(Pensions are granted to the survivors of a person who was engaged in light work provided he had fulfilled a qualifying period

of insurance varying from three years at twenty years of age to twenty years at sixty years of age or over.)

United Kingdom. Widows' benefits are subject to the same qualifying periods of insurance as old-age benefits, that is, the deceased husband must have paid 156 weekly contributions between entry into insurance and attainment of pensionable age or death and have a yearly average of at least fifty contributions paid or credited where the contribution record is deficient a reduced benefit may be paid.

United States. The right to a survivor's pension of a widow aged sixty-five years or more, or of parents where neither widow nor children are left, is conditional on the insured person having to his credit either forty quarters of coverage (calendar quarters in which he has earned at least \$50) in all, or one quarter of coverage at any time for each two calendar quarters elapsing after 1936 or after reaching twenty-one years of age (if later) and the attainment of sixty-five years of age or death before that date, with a total of at least six quarters of coverage. The qualifying condition is relaxed in the case of entitlement to a pension of a widow having in her care one or more children, or of a dependent unmarried child or children under the age of eighteen years to six quarters of coverage in the twelve calendar quarters preceding any given date.

Amount of Survivors' Pensions.

Pensions under the non-contributory schemes are provided at flat rates, deductions being made in respect of income and of property in excess of specified amounts. This principle has also been followed in the Social Services Consolidation Act, 1947, of Australia.

Australia (Commonwealth). The maximum annual pension for a widow who has the care of one or more children (Class A widow) is £110 and the rate for a widow without dependent children who is over fifty years of age (Class B widow) is £96.4s., reduced in each case in respect of that portion of the value of the widow's property which exceeds a specified amount. A Class A widow is not entitled to pension if the value of her property exceeds £1,000; a Class B widow is not entitled to pension if the value of her property exceeds £750. An indigent widow who does not fulfil the qualifying conditions as to care of children or age receives £2.2s.6d. per week for twenty-six weeks.

In Australia (New South Wales scheme for miners) and in the

United Kingdom, widows' pensions are paid at flat rates reduced by the earnings of the widow in excess of specified amounts.

Australia (New South Wales scheme for miners). The widow's pension is £2 per week. The orphan's (brothers and sisters) pension is 8s.6d. per week. Any portion of the average weekly earnings of the pensioner and her dependants in excess of £2.10s. is deducted from the survivors' pension. Where the earnings of a dependant exceed the allowance paid in his respect, they are deemed to be the amount of the allowance only, in the calculation of the average weekly earnings of the widow and her dependants.

Any payments made under the general social security scheme (Commonwealth) to the widow or orphans are deducted from the pensions payable under this scheme.

Compensation under the Workers' Compensation Act is, in effect, deducted from the pension payable under this scheme.

United Kingdom. The widow's allowance payable during the first thirteen weeks of widowhood is 36s. per week, plus 7s.6d. a week if the widow has a dependent child. The widowed mother's allowance is 33s.6d., reduced by the amount of weekly earnings in excess of 30s. Where a widow's pension is payable on the termination of the widowed mother's allowance or of the widow's allowance, the rate is 26s. a week, reduced by the amount of weekly earnings in excess of 30s. The guardian's allowance is 12s. a week per child; no family allowance is paid for a child in respect of whom a guardian's allowance is granted.

In Belgium, Czechoslovakia, France, Germany and the United States, widows' pensions are based on the old-age or invalidity pension to which the deceased person was or would have been entitled. Allowances in respect of orphans are usually fixed at flat rates.

Belgium. The survivor's pension payable to a widow consists of: (1) a fraction of the pension and supplements accrued to her husband varying with his age at death and the difference in their ages; (2) a bonus varying from 132 to 594 francs per year with the date of birth of the husband; (3) a supplement of 1,300 francs, increased to 3,000 francs at forty-five, 6,400 francs at fifty-five, and 8,700 francs at sixty years of age.

A widow's old-age pension is equal to 50 per cent. of the pension to which the deceased husband was or would have been entitled under the scheme, subject to a minimum equal to the amount of the widow's survivor's pension payable at sixty years of age. Where her husband was not pensioned or pensionable for old age,

the total old-age pension payable to the widow is equal to 50 per cent. of the old-age pension which would have been granted to her husband on attainment of pensionable age on the basis of his total years of service, as a pensioner who no longer works.

At sixty-five years of age, a widow who had not previously qualified for an old-age pension is entitled to a pension equal in amount to that payable to widows under the general scheme.

The annual rates of pension paid in respect of half orphans are as follows: 1,008 francs for each of the first four children; 1,152 francs per child when there are five children; 1,296 francs per child when there are six children; 1,440 francs per child when there are seven children; 1,584 francs per child when there are eight or more children. An annual allowance of 1,584 francs per child is paid in respect of full orphans. These pensions are paid in addition to family allowances.

(Under the general scheme, the widow's pension is calculated on the same principle as the survivor's pension payable to widows under the miners' scheme, but the supplement is not paid until the widow reaches fifty-five years of age.)

Czechoslovakia. The rate of a widow's pension is 50 per cent., or 70 per cent. where more stringent qualifying conditions are fulfilled, of the old-age or invalidity pension to which the insured person was or would have been entitled on the date of his death, subject to a minimum of 8,400 crowns. An orphan's pension is equal to 50 per cent. of the old-age or invalidity pension as above. Educational allowances are not payable in respect of a child who is eligible for an orphan's pension. Where the widow or orphan is an invalid requiring the assistance of another person the pension is increased by 50 per cent.

(Pensions for the survivors of insured persons other than miners are computed on a similar basis.)

France. The widow of a deceased miner who had been insured and had had not less than fifteen years' service is entitled to a pension equal to half the old-age pension provided for employees with the same length of employment in the mines as her husband. The widow of an insured person with less than fifteen years' service, who died while still employed in the mines, is entitled to a pension equal to half the occupational invalidity pension corresponding to her husband's length of service. Where the deceased miner had had less than fifteen years' service but had been in receipt of an invalidity pension (general or occupational), the rate is also half of the occupational invalidity pension. Widow's

pensions are increased by 0.6 per cent. for each year of employment underground. If the widow remarries, her pension ceases, but she is granted a lump sum payment equal to three times the annual pension.

(Where orphans qualify for pensions, the monthly rate is 2,530 francs for each half orphan and 5,060 francs for each full orphan. Where an orphan does not qualify for such a pension, an allowance of 1,895 francs per month may be claimed by his widowed mother, provided she is in receipt of a widow's pension; this allowance is reduced if a family allowance is also payable.

The invalid widow of an insured person is entitled to a pension amounting to half the invalidity pension to which her deceased husband would have been entitled. The invalid widow of an invalidity or old-age pensioner is entitled to a pension amounting to half the pension paid to her deceased husband.

On reaching sixty-five years of age the widow of an old-age pensioner is entitled to a pension equal to half the pension paid to her deceased husband.

A widow with a child or children is entitled to a single wage allowance varying in amount with the number of dependent children.)

Germany. A widow's full pension is equal to 60 per cent. of the old-age or general invalidity pension to which the deceased miner would have been entitled. A widow's pension is equal to 60 per cent. of the occupational invalidity pension to which the deceased miner would have been entitled. Flat-rate pensions are paid in respect of orphans.

United States. The widow's pension is equal to three-quarters of the primary benefit to which her husband was or would have been entitled (that is, to three-quarters of the sum of (1) 40 per cent. of the first \$50 of his average monthly wages and (2) 10 per cent. of the next \$200 or any fraction thereof, and (3) one per cent. of the total of (1) and (2) for each year in which he had received wages of \$200 or more). Fifty per cent. of the primary benefit is paid in respect of each orphan. A parent's pension, where such is payable, also amounts to 50 per cent. of the primary benefit. The maximum survivors' benefits per month are \$85, or twice the primary benefit, or 80 per cent. of the average monthly wage, whichever is the least. A lump sum death benefit is paid to qualified survivors if no one is eligible for immediate monthly benefits.

Qualified survivors share the survivors' pension in Poland and

the U.S.S.R. In the former country, the collective portion is fixed at a flat rate and individual supplements, also at a flat rate, are paid to each survivor. In the U.S.S.R., survivors' pensions are calculated in the same manner as invalidity pensions; the rate of the supplement based on monthly earnings in excess of 600 roubles varies with the number of survivors.

U.S.S.R. The survivors of a deceased coal miner share a pension calculated as follows: a fraction (49 to 80 per cent., according to years of service) of the first 600 roubles of monthly wages, plus a fraction (10 to 20 per cent., according to the number of survivors) of any portion of earnings in excess of 600 roubles per month. An increment (10 to 25 per cent. of the pension) is paid in respect of a period of work of three or more years duration in one mine.

(The survivors' pension payable in respect of other categories of workers is a fraction of the deceased worker's basic wages varying with the number of survivors and his occupational category and length of employment. The amount payable to the survivors of a miner is higher than that payable to the survivors of a person who had been in another occupational category.)

FINANCIAL RESOURCES

Non-contributory pension schemes are financed from the general revenues of the State in Canada and the Union of South Africa. In Australia, the National Welfare Fund, a trust fund from which social security benefits are paid, derives its resources from a tax on contributory income. Hungary meets the cost of miners' pensions by a sales tax on the products of the mines paid by the purchaser. Most pension schemes obtain their resources from contributions in respect of the persons covered, these contributions being paid by the employees and/or the employers, and by State subsidies in one form or another.

Rate of Contribution

The cost of an insurance scheme depends on the range and extent of the benefits provided, and the rate of contribution required to finance it depends on the cost, the portion of the cost which is borne by the State and, where the rate is based on earnings, the portion of earnings taken into account in the computation. The Australian social security tax varies in rate with the amount of

contributory income from 3d. to 1s.6d. in the pound. In Hungary the rate of the sales tax used to finance miners' pensions is fixed annually; it cannot exceed 5 per cent. In the United Kingdom a single flat rate contribution covers all social security benefits. Social security contributions, however, are usually based on the earnings, or a portion of the earnings, of the insured person. Rates in respect of pensions applying to miners are given below.

Australia (New South Wales scheme for miners). The scheme is financed on an assessment basis. Each year a pensions tribunal estimates the amount required for the following year to pay the pensions and to provide the reserves.

Belgium. An amount equal to 9 per cent. of wages is allocated to old-age and survivors' insurance and an amount equal to 2 per cent. of wages to invalidity insurance. There is a State subsidy.

(Under the general scheme for wage earners, contributions amounting to 7 per cent. of wages, exclusive of any amount in excess of 4,000 francs per month, are allocated to old-age and survivors' insurance, and contributions of 6 per cent. to sickness, maternity and invalidity insurance, to cover benefits in cash and kind.)

Czechoslovakia. The pension scheme is financed by a contribution of 10 per cent. of the basic earnings of the insured persons and a State subsidy. The pension scheme includes not only old-age, invalidity and survivors' pensions, but also educational grants for the children of pensioners to replace family allowances, pensions to invalid and aged housewives, and marriage grants to insured persons.

(The contribution rate is the same in respect of miners and other insured persons.)

France. Twenty-four per cent. of the wages of each insured person, excluding any portion in excess of a specified amount (276,000 francs per year, April 1948) covers the cost of old-age, invalidity and survivors' pensions.

(Under the general scheme for workers in non-agricultural occupations, a single contribution of 16 per cent. of wages, excluding any portion in excess of a specified amount (228,000 francs per year, March 1948) covers sickness, maternity, invalidity, old-age and survivors' insurance and special grants to aged workers.)

Germany. The contributions amount to 20 per cent. of earnings, excluding any portion in excess of 600 marks per month. There is a State subsidy.

(In the British and United States zones, the general schemes are financed by a payroll tax at the rate of 5.6 per cent. and a State

subsidy; in the French zone, pensions are financed by a tax of 9 per cent. of wages or salaries and subsidies.)

U.S.S.R. The rates vary according to the branch of industry. In the mining industry, the rate of contribution to cover both long and short-term cash benefits was 9.5 per cent. of total wages in 1940.

(In the petroleum industry, the rate of contribution to cover the same benefits was 8.4 per cent. of wages and, in the building industry, 4.0 per cent. in 1940.)

Sharing of Contributions

In the Netherlands, miners and their employers pay similar contributions to the pension fund, and in the United States the social security tax is divided equally between employees and employers. Under the French social security scheme for miners, the employees, employers and the State each pay 8 per cent. of wages, excluding any portion in excess of a specified amount, for old-age invalidity and survivors' insurance. In Poland and the U.S.S.R., the employers (usually the State) are responsible for the entire social security contribution. Such will eventually be the case in Czechoslovakia, but at present the contribution is shared by the employees and employers. Under the Australian (New South Wales scheme for miners), Belgian and British schemes, the contributions are divided in unequal portions between employees and employers, and the funds so obtained are supplemented by the State. The sharing of contributions in these countries is as follows:

Australia (New South Wales scheme for miners). The State pays one quarter of the amount estimated to be necessary for the forthcoming year or £80,000, whichever is the less, and the balance is paid by the mineworkers and mine owners, who contribute in the ratio of one to 3½. At present the worker pays 4s. and the employer 14s. a week.

Belgium. The worker contributes 3.5 per cent. of wages and the employer 5.5 per cent. towards the cost of old-age and survivors' pensions; the worker contributes 3.5 per cent. of wages and the employer 2.5 per cent. towards the cost of sickness and invalidity insurance.

Germany. The employee pays 7 per cent. and the employer 13 per cent. of earnings, excluding any portion in excess of 600 marks per month.

United Kingdom. The social insurance contributions in respect of men are as follows: employed person, 4s.7d., employer, 3s.10d. This amount covers the contributions towards all benefits under the National Insurance Act, as well as a payment towards the national health services. The rate will be raised 4d. a week at the end of five years to meet in part the increase in expenditure in future years due to the rise in the cost of retirement pensions.

Subsidies by the Public Authorities

Australia (Commonwealth) and the United States do not make any contribution to the social insurance funds from their general revenues, and in the U.S.S.R. the State contributes only in its role as employer. A number of countries, however, grant subsidies to increase the capital of the social security funds and/or to meet a portion of their annual expenditure.

Australia (New South Wales scheme for miners). The State pays one quarter of the estimated cost of the pensions and the reserves to be set aside during the forthcoming year, or £80,000, whichever is the less.

Belgium. One third of the invalidity pensions and two thirds of the orphans' benefits are paid by the State. Its contribution towards the cost of old-age and widows' pensions is such as to bring the sum payable from the contributions to an amount fixed in accordance with the age, years and type of service and marital status of the insured person. The State meets the full cost of the pensions payable to miners who are under fifty-five years of age.

Czechoslovakia. The State contributes towards the provision and maintenance of a reserve fund equal to three times the annual expenditure on all benefits in 1949.

If, in the interest of the national economy, it is decided to supplement old-age pensions by special increments in respect of periods spent in arduous, hazardous or unpopular employment, the State will defray the additional cost.

France. The contributions are shared equally by the State, the insured person and his employer (8 per cent. of wages, excluding any portion in excess of a specified amount each.)

Germany. The Government contributes to each pension a sum equal to the basic amount of the corresponding pension under the general scheme; it also pays a subsidy to the miners' pension fund.

United Kingdom. The State contributes one fifth of the total

paid as contributions by the insured person and the employers and also a lump sum towards the cost of the scheme as a whole.

The contributions on behalf of each insured person cover the cost of benefits in the case of persons entering insurance at sixteen years of age. Since a number of persons over the age of sixteen years entered the scheme when it came into effect in July 1948 who will not pay the normal number of contributions for the benefits they receive, there will be a deficit for a number of years. This deficit will be met from the general revenues of the State.

BILATERAL TREATIES CONCERNING THE MAINTENANCE OF THE ACQUIRED PENSION RIGHTS OF MIGRANT WORKERS IN THE MINING INDUSTRY

With few exceptions, rights to old-age, invalidity and survivors' pensions depend on the completion of a minimum qualifying period with a minimum number of contributions paid or credited, and may also depend on the maintenance of insured status through the payment of a certain number of contributions within a fixed period immediately preceding the date when the risk occurs. Unless some provision to the contrary is made, a worker who, having completed a period of insurance in one country, migrates to another country, will lose his acquired rights or rights in the course of acquisition in the first country, and, even if he is compulsorily insured in the second country, will not be protected against old age, invalidity and death until he has fulfilled a fresh qualifying period.

Before the Second World War, a number of countries had made bilateral treaties concerning the inclusion in the social security scheme of one party of the nationals of the other party and the maintenance of the acquired pension rights or rights in the course of acquisition of workers migrating between the contracting countries. Some of these treaties, for example, those to which Germany was a partner, have not survived, while the reforms in social security legislation have rendered others inadequate. Thus, bilateral treaties providing reciprocal social security rights have recently been concluded between Belgium and France, Belgium and Italy, Belgium and the Netherlands, Czechoslovakia and Poland, France and Italy, and France and the United Kingdom, while in 1947 Poland made a series of agreements with Belgium and France to supplement earlier treaties.

These bilateral treaties are based on the principle of equality of

treatment in the matter of social security by one contracting party of the nationals of the other contracting party and establish the place of work of the insured person as the criterion in determining which national legislation applies in respect of the coverage in old-age, invalidity and survivors' pension schemes. Periods of insurance in each contracting country are totalised to establish rights to long-term benefits and to maintain rights in the course of acquisition. Where, as a result of totalising insurance periods, rights to an old-age or survivors' pension arise in one or both contracting countries, the competent institution or authority of one or each country is liable for the fraction of the pension for which it would have been liable if the total periods of insurance had been spent in its country. This fraction corresponds to the ratio of the period of insurance spent in the country concerned to the total periods of insurance spent in both countries. According to some of the treaties, responsibility for the payment of invalidity pension is shared by the competent bodies in the countries concerned, while others provide that it shall be borne by the institution in which the claimant was insured at the time of the occurrence of the event which gave rise to the invalidity.

Where miners are accorded special treatment, problems arise in respect of the maintenance of their acquired pension rights. Belgium and France and France and Poland have concluded separate treaties on this subject, while the general Belgo-Italian and Franco-Italian treaties contain special provisions referring to workers in the mining industry. An agreement is to be concluded between the competent authorities of Belgium and the Netherlands on the application of the principles of the general Belgo-Netherlands treaty to miners' pension schemes. The problems connected with the maintenance of miners' pension rights vary according as both (Belgium and France, France and Poland) or one (Belgium and France in the treaties with Italy) of the contracting parties grant special treatment to miners.

The Belgo-French and Franco-Polish treaties provide for the totalisation of successive periods of insurance in the special miners' scheme of the contracting parties to establish rights to old-age, invalidity and survivors' pensions. In principle, periods of underground work according to the special legislation of one of the contracting parties are deemed to be periods of underground work in respect of the legislation of the other contracting party. However, in totalising periods of underground work in Belgium and France to establish rights under the French scheme to an old-

age pension before reaching fifty-five years of age or to the allowances granted to persons who qualify for pension but continue to work in mines, periods of underground work in Belgian mines are reckoned as two thirds of their actual duration. French and Polish nationals pensioned for service in the mining industry of France and Poland alternately are entitled to any bonus for underground work granted by either country for the underground work they performed in that country.

According to the Belgo-Italian and Franco-Italian treaties, periods of insurance under the Italian general scheme are counted for the purpose of establishing the rights of Italians employed in Belgian or French mines to the special advantages in respect of old-age and survivors' insurance of the French miners' social security scheme, if the periods were spent in mining work of the same kind as is recognised by the French legislation for this purpose. The Belgo-French and Belgo-Italian treaties provide that a person qualifies for an old-age pension at a reduced age under the Belgian miners' pension scheme only on the basis of employment in the Belgian mines, and that a miner may draw a pension from the competent Belgian institution at the same time as he earns wages only if he works in Belgium. Similarly the Belgo-French and Franco-Polish agreements provide that the allowance paid in addition to wages under the French social security scheme for miners to a person who continues to work in the mines after he has become pensionable is awarded only to persons who work in French mines.

According to the treaty between Belgium and France, an invalidity pension is granted on the termination of sickness cash benefit under the legislation of the country in which the victim was working on the occurrence of the accident or illness giving rise to incapacity. If the totalisation of periods of insurance under the miners' schemes of both countries results in the fulfilment of the qualifying period for invalidity pension in each country, the claimant is entitled to a reduced pension from the competent institutions of each country, but if it results in the fulfilment of the qualifying period in only one country, the claimant is entitled to a pension from the competent institution of the country where the illness or accident giving rise to invalidity was certified.

For Italian workers employed in Belgian mines, periods of invalidity insurance under the Italian general scheme while they were employed in Italian mines are counted as periods of invalidity insurance under the Belgian miners' pension scheme. In the case

of Italian workers employed in French mines, all periods of invalidity insurance under the Italian general scheme are counted as periods of invalidity insurance under the French miners' social security scheme to establish rights to invalidity pension in France. Under both the Belgo-Italian and Franco-Italian treaties, invalidity benefit is payable in accordance with the legislation applying to the insured person at the date of the certification of the illness or accident giving rise to invalidity, and the sole liability for the benefit rests with the institution in which he was then insured, provided he had been insured therein for at least one year.

Belgian, Italian and Polish miners may qualify for an occupational invalidity pension in France, provided they were resident in that country when the event giving rise to invalidity occurred; payment of the pension is suspended if the recipient resumes work outside France.

An insured person may renounce his right to totalise periods of insurance in the contracting countries and instead may claim benefit under the legislation of each country, irrespective of periods of insurance in the other country, according to the Belgo-French, Belgo-Italian and Franco-Italian treaties.

II. A New Form of Social Insurance and Pensions: The Welfare and Retirement Fund of the United Mine Workers of America

In the present Chapter, which is devoted to a comparative study of invalidity and old-age pensions for miners, and pensions for their survivors, it was felt that the system recently established for the benefit of miners in the greatest coal-producing country, the United States, should be treated separately.

It would in fact have been difficult to consider the American system under Section I, for in terms of origin, economic background and prospects for the future, it bears little resemblance to the systems so far analysed.

In addition, the coming into force of this system of social insurance and pensions for miners may be regarded as one of the most outstanding social developments that have occurred in the coal mining industry in the interval between the Committee's sessions, and as such it is fully entitled to inclusion in the present General Report, together with an account of the circumstances that attended its coming into being, or rather its development, for in the General Report for the Second Session it was already stated that the agreement of 29 May 1946 which put an end to the miners'

strike of that spring contained provisions for the establishment of a welfare and retirement fund and of a fund to cover medical and hospital expenses of miners.¹

ORIGIN OF THE FUND

The miners' trade union, the United Mine Workers of America (U.M.W.A.), of which Mr. John L. Lewis is President, considers that the coal mining industry itself should be held responsible for the social insurance of its workers. They slave for it and help to ensure its prosperity; therefore it is no more entitled to disregard them when they fall on evil days or when they are worn out after long years of work, than to disregard the maintenance of its mining equipment. The U.M.W.A. feels that the nation could, and should, bear the responsibility for the social insurance of all citizens; but before all else the coal mining industry should look after its workers.

On the basis of this doctrine, provisions for the constitution of the aforesaid two Funds was made in the collective agreement of 29 May 1946, which was signed by Mr. Krug, Secretary of the Interior, on behalf of the Government which just then had taken over the mines, and by Mr. John L. Lewis, on behalf of the United Mine Workers of America.

When the Government released the mines, the new collective agreement which was signed on 8 July 1947, this time between the mine operators and Mr. John L. Lewis, included the following provisions concerning the two Funds: (1) the contribution for the financing of the Welfare Fund, which had been 5 cents per ton of coal produced, was raised to 10 cents; (2) the sums available for medical and hospital expenses were transferred to the other Fund (henceforward to be called "the Welfare and Retirement Fund"), while maintaining the miners' contributions; (3) three trustees were appointed to administer the Fund, one by the owners, one by the U.M.W.A. and one chosen by the other two. Finally, the credit balance of the Welfare Fund for 1946 was transferred to the Welfare and Retirement Fund.

This collective agreement was renewed on 25 June 1948²

¹ It will be remembered that anthracite mines in the United States form a separate section of the coal mining industry. The agreement of 29 May 1946 concerned workers in bituminous coal mines. An identical agreement was signed on 7 June 1946 for anthracite mines.

² It will be recalled that in the bituminous coal industry, as well as in the anthracite industry, collective agreements are valid for one year.

in circumstances which will be discussed below; the deduction per ton of coal produced, used for financing the Welfare Fund, was raised from 10 to 20 cents.

PURPOSE OF THE FUND

By the terms of the collective agreement, the purpose of the Welfare and Retirement Fund is to make the following payments from principal or income or both: (1) benefits to employees of the operators signing the agreement, and to their families and dependants, for medical care and hospital expenses, pensions on retirement or death of the employees, compensation for injuries or illness resulting from their occupational activity; or insurance to provide any of the foregoing, or life insurance, sickness and invalidity insurance, or accident insurance; (2) benefits with respect to loss of wages, when such loss is not compensated or only inadequately compensated by tax-supported agencies created by Federal or State laws; (3) benefits on account of sickness, temporary disability, permanent disability, death or retirement; (4) benefits for any and all other purposes which may be specified, provided for or permitted in Section 302 (c) of the Labor-Management Act, 1947, as agreed upon from time to time by the trustees of the Fund, including the making of any or all of the foregoing benefits applicable to the individual members of the United Mine Workers of America and their dependants; (5) benefits for all other related welfare purposes as may be determined by the trustees within the scope of the provisions of the aforesaid Labor-Management Act, 1947.

As may be seen from the foregoing, the risks covered by the Welfare and Retirement Funds are numerous. In practice, the Fund's first duty is to bring relief in all difficulties and distress that may befall the workers in the course of their career, as well as providing for their old age.

FINANCING AND ADMINISTRATION OF THE FUND

By the terms of the agreement signed on 25 June 1948¹ the Fund has been financed, since 1 July 1948, by a contribution of 20 cents per ton of coal produced "for use or for sale". But while one provision of the collective agreement records that "by agree-

¹ On 25 June 1948 for bituminous coal mines, and on 4 July 1948 for anthracite mines.

ment between the contracting parties this Fund is an irrevocable trust created pursuant to Section 302 (c) of the Labor-Management Act, 1947, and it shall endure as long as the purposes for its creation exist", another provision of the agreement lays down that the sum of 20 cents shall be paid into the Fund "during the life of the agreement" *i.e.*, for one year. This means that the financial source of the Fund has retained a flexibility which will doubtless permit of any adjustments that may be found necessary at a later date.

Payments are made by the operators to the Welfare and Retirement Fund on the 20th of each month. They are calculated on the basis of the production during the preceding month. Any failure on the part of an operator to make payment is regarded as a violation of the collective agreement, and may—legally speaking—justify a stoppage of work by his employees.

The collective agreement has laid down the principles and the outline of the Welfare and Retirement Fund, but it has left the three trustees full scope not merely for settling the proportion of the Fund's resources to be set aside for the payment of retirement pensions, but also to establish the methods of application of the system, *i.e.*, the conditions which applicants must fulfil, the order of priority of the benefits to be paid, the amount of those benefits, the investment of the Fund's moneys, and all other questions arising from the putting into operation of a new and complex institution, which involves the handling of large sums of money.

Without entering into too much detail, it may be noted that, as a matter of fact, some difficulties arose between the three trustees¹ during their first year of office in connection with the exercise of their full powers. Mr. Thomas E. Murray, the first neutral trustee, resigned in January 1948. The delay in appointing a successor gave rise to difficulties, and Mr. Van Horn, the employers' trustee, filed a lawsuit, requesting that the neutral trustee should be designated by the Court.

This controversy between administrators naturally resulted in a delay in the Fund's coming into operation and in the payment of the various benefits provided for. The workers, informed of the situation by their local branch unions—which had themselves received the information through a communication from Mr. John

¹ The three trustees now are: Mr. John L. Lewis, for the U.M.W.A.; Mr. Ezra Van Horn, for the operators and Senator Styles Bridges, neutral. By the terms of a provision of the agreement, the representative of the U.M.W.A. acts as Chairman of this committee of three.

L. Lewis, dated 12 March 1948—began to leave the pits. In view of this general action, a temporary restraining order was served on 3 April, at the request of the Department of Justice, on the United Mine Workers and on its President, Mr. John L. Lewis, enjoining them to put an end to this stoppage of work, for which they were held responsible.

In the meantime, the stoppage began to threaten the general economy of the country, and President Truman therefore set up a Board of Enquiry to ascertain the exact position of the parties involved, while at the same time attempts were made by various well-known personalities to effect a *rapprochement*. One of these attempts, made by Mr. W. Martin, Speaker of the House of Representatives, finally resulted in an agreement between Mr. John L. Lewis and Mr. Van Horn on the nomination of Senator Bridges as neutral trustee. On 12 April, Mr. John L. Lewis gave the miners an assurance that the dispute on the Welfare and Retirement Fund was settled, and urged them to return to work.

The dispute flared up again a few days later, when the trustee appointed by the operators contested the validity of the decisions taken "by a majority" i.e., by his two co-trustees. These decisions constituted a plan for the operation of the Fund, and dealt with the payment of retirement pensions before an actuarial examination could be made on the retirement age, the amount of the pension, and the right to a pension of workers who were eligible except in so far as they were not actually employed on 1 July 1947 by one of the operators signatories to the 1947 agreement.

Mr. Van Horn's objections led to another lawsuit before the U.S. District Court for the District of Columbia. In its verdict of 22 June 1948, this Court settled the argument between the trustees of the Fund.¹ As a result of this verdict, the collective agreement was renewed on 25 June, and a new dispute avoided. As has already been pointed out, on the occasion of this renewal of the collective agreement, the contribution paid into the Welfare and Retirement Fund was raised from 10 to 20 cents per ton.

These rulings enabled the Fund to begin operating normally,

¹ By the verdict of the Court, the questions at issue were settled as follows: (a) all decisions taken by a majority of the trustees shall be valid; (b) benefits paid by the Fund as provided by the collective agreement shall be paid to members of the United Mine Workers, signatories to the agreement, irrespective of the date of 1 July 1947, provided that they are otherwise eligible; (c) a preliminary actuarial examination is not essential, since such examinations have only a relative value, and since actuaries are liable to reach contradictory conclusions.

and to meet all its obligations. Thus, on 9 September 1948, the Fund began to make its first payments in respect of retirement pensions.

FIRST ACTIVITIES

As a result of the above-mentioned Court decisions, the rules governing the operation of the Fund and all the methods of application, determined in April by two trustees out of three¹, came into force immediately after the signature of the collective agreement, i.e., on 25 June 1948. The principal points are summarised below:

Out of the income accounted for by the terms of the 1947 agreement, a sum of five million dollars has been set aside for the payment of pensions and retirement annuities.

The pension was fixed at one hundred dollars a month, subject to revision at any time as experience might dictate.

Any member of the U.M.W.A. is eligible for a retirement pension if he was sixty-two years old on 29 May 1946²—or reached that age after the date in question—and has completed twenty years' service in the United States bituminous coal industry.³ All members of the United Mine Workers who ceased working after 28 May 1946, but who fulfil the stated conditions as to age and length of service, will receive their pension as from the day of their leaving the mine. Time spent in the Armed Forces is counted as service in the coal mining industry.

The Welfare and Retirement Fund for workers in bituminous coal mines made its first payment of retirement pensions on 9 September 1948, and the Fund for workers in anthracite mines on 15 September.

The extent of the assistance which these two Welfare and Retirement Funds are called upon to bring to mineworkers may

¹ All these rules and methods may be found in a document entitled the *Styles Bridges Resolution*, after the neutral trustee who submitted it to the trustees' meeting of 12 April 1948. It was published in the *National Coal Association Industry Bulletin*, No. 2539, 12 April 1948, and in the *Joint Report of the International Officers to the 40th Consecutive Convention of the United Mine Workers of America*, Cincinnati (Ohio), October 1948.

² The first collective agreement providing for the setting-up of a Welfare and Retirement Fund was signed on 29 May 1946, and therefore this date was chosen as a starting-point for the entry into force of the system.

³ It will be recalled that in this matter the collective agreement on anthracite mines is identical with that for bituminous mines, since it provides for the setting-up of a similar Fund, financed and administered in the same manner. The three trustees of the Welfare and Retirement Fund for the anthracite mines are: Mr. Thomas Kennedy, for the U.M.W.A.; Mr. Robert L. Birtley, for the operators, and Mr. Mart F. Brennan, neutral.

be judged by their early activities, from June 1946 to 31 July 1948, *i.e.*, during a period in which disputes between the trustees resulted not only in excluding retirement pensions from their sphere of action, but also in delaying the payment of other benefits owing to the fact that a part of the funds was immobilised.

By 31 July 1948 the position of the Welfare and Retirement Fund for bituminous coal mines was as follows :

Relief payments totalling \$21,311,858 were made to the following: 47,082 disabled members and 18,211 widows of deceased members.

Of those who received disablement allowances, 77.1 per cent. are permanently disabled. Of the 18,211 widows who received assistance, 2,614 lost their husbands in mining accidents.

Relief payments are made for varying periods of time : 61 per cent. of the payments mentioned above were granted for twelve months and 19 per cent. for six months.

The death benefit paid to widows or other next-of-kin of deceased members is fixed at one thousand dollars. Payments amounting to \$7,986,452 have been made—in respect of 8,063 deaths—to 22,173 persons : widows, orphans and dependants.

In the spring of 1948 special treatment in hospital was instituted in certain coalfields for miners suffering from paralysis of the lower limbs as a result of industrial accidents. The Fund is hoping to organise similar services in all the coalfields, gradually extending them to cover other classes of accidents, as well as the rehabilitation of the injured. The Fund's activities in that respect by 31 July 1948 had covered more than 200 members, and had cost \$85,079.

Thus, by 31 July 1948, the Welfare Fund (bituminous coal mines) had paid out a sum of \$29,383,390 in respect of benefits other than retirement pensions. It is estimated that more than 170,000 persons—miners and their families—have received benefits of one kind or another.¹

The benefits paid by the Welfare and Retirement Fund of the anthracite mines between 1 June 1946 and 31 July 1948 were as follows¹ :

Applications for relief were made in 9,267 cases; benefits were paid to 6,944 of the applicants. On 31 July, 617 applications were under consideration and 1,706 had been contested or rejected.

Death benefits were paid in 2,457 cases, to 1,953 widows, 259 orphans and 245 other next-of-kin. On 31 July, 512 appli-

¹ *Joint Report of the International Officers to the 40th Consecutive Convention of the United Mine Workers of America, op. cit.*

cations were under consideration, while 346 had been contested or rejected.

Workers in anthracite mines are especially liable to silicosis. Out of 2,457 deaths registered in the course of the period under consideration, 581 were due to silicosis and 169 to tuberculosis. The Fund has therefore opened a special section to finance research on silicosis, as well as the treatment of miners suffering from it. By 31 July 1948, following 464 applications, 303 members were hospitalised, 120 applications were under consideration, and 41 had been contested or rejected.

It will be extremely interesting to follow the development over the next few years of this experiment undertaken in the United States. It will certainly contain lessons in the most varied of fields : industrial relations, the development of a sense of responsibility, social hygiene, medical progress, and many others besides. But whatever its development may be, it may be stated that this new experiment has already secured for American miners considerable improvement in their living conditions, and that it places the coal mining industry in the United States in the vanguard of social progress.

CHAPTER III

BALANCE-SHEET FOR 1947-1948 AND PROSPECTS

I. The Coal Mining Industry throughout the World

Since the Second Session of the Committee, the position of the coalmining industry throughout the world has undoubtedly improved as a result of the various measures taken by the great coal-producing nations, as well as by those whose production is less extensive.

According to their particular situations and possibilities, the efforts of each country were chiefly directed towards a specific problem such as equipment, operating methods, financing, manpower or social reforms. From sheer necessity, or because they took a hopeful view of the future, they also tackled several of these problems at the same time, and sometimes, indeed, all of them.

As a result of this general effort, production today has risen by comparison with 1946. It is true that coal is not yet plentiful in all parts of the world, but the terrible shortage which, after the end of hostilities, was particularly severe in Europe, is now disappearing, and with it will also disappear the threat of paralysis to certain national economies. Internationally speaking, the coal industry is gradually beginning to emerge from the exceptional situation in which it found itself as a result of the war and its aftermath.

This return towards normality of one of the essential industries will not fail to be a cause for satisfaction to all nations. "Normality" should be understood as meaning not merely the 1937 levels, but rather such a level of production as can satisfy all the needs of a world in the throes of reconstruction or transformation. The 1937 production level can no longer suffice to meet the expressed, not to mention the latent demand, for it should not be overlooked that a certain number of factors have changed—or are in process of changing—which directly affect fuel consumption. The main factors to be pointed out in this connection are: the growth of the world population (by 9 per cent. since 1937); the industrial development of hitherto underdeveloped countries; the raised standard of

life of populations, which is a general tendency bringing in its train not only an increased domestic fuel consumption by such populations, but also an increased demand for manufactured goods and an increasingly extensive use of transport, for conveying men or goods; and lastly, the full employment policy which different countries are trying to put into practice, and because of which economic activity will have to reach an extremely high level.¹ It should, of course, remain understood that in this growing need of fuel the place of coal will depend to a large extent on the ability of the coal industry to offer its output at prices that the general economy can afford, thanks both to the extensive modernisation of the industry and to the improved productivity of its manpower.

It would, therefore, be of the utmost importance for the Committee to follow this process and see under what conditions it is accomplished. In the present Chapter an attempt has been made, for the Committee's benefit, to draw an outline of the development of the industry during the interval between the Committee's last session and the forthcoming one. It may be stated that this development is dominated by three factors, namely, increase of production, symptoms of a reverse in the commercial circuits of coal, and the efforts to modernise the industry in regard to production and marketing.

DEVELOPMENT OF PRODUCTION

During the year 1947 and the first half of 1948, the output of the coalfields of all the countries which are members of the Committee continued to improve. The rate of this improvement varied from country to country. Table VII gives some idea of the different rates of progress.

A comparison of production data shows that, during the first six months of 1948, the 1937 level was reached or exceeded by nine of the twelve countries which are members of the Committee: Turkey, Union of South Africa, United States, India, France, Australia, Czechoslovakia, Canada and Poland. Three member countries still remain below this level: the United Kingdom, Belgium and the Netherlands. To these should be added Western Germany (the bizone), the Saar, Italy and Japan.

¹ It is, of course, not easy to forecast future demand for fuel, in view of the factors set forth. In this connection, the study published by the Department of Economic Affairs of the United Nations: *Post-War Shortages of Food and Coal*, Part II, July 1948, might with advantage be referred to.

TABLE VII. DEVELOPMENT OF GROSS PRODUCTION OF HARD COAL IN COUNTRIES WHICH ARE MEMBERS OF THE COMMITTEE, AND IN WESTERN GERMANY, ITALY AND JAPAN ¹

(1937=100)

Country	1946	1947	1948 ^a
Turkey	166	172	200
Union of South Africa	153	151	170
United States :			
Bituminous	121	140	128 ³
Anthracite	116	110	120
India	118	121	125 ⁴
France	103	101	113
Australia	116	120	111 ⁴
Czechoslovakia	85	98	105
Canada	110	97	103 ⁴
Poland	72	90	100
United Kingdom	79	84	88
Saar	59	76	88
Belgium	76	82	87
Italy	80	86	86
Netherlands	58	70	77
Japan	45	61	73
Western Germany :			
British Zone	40	52	59
United States Zone	87	93	87

¹ The countries have been classified in order of their progress by the first half of 1948, compared with the 1937 level.

² Average January-June.

³ Drop in output due to strikes.

⁴ Average January-May.

Of the nine countries which exceeded the 1937 level, two—Poland and Czechoslovakia—were below this level in 1946. The extent of the progress can be even better assessed when it is remembered that in 1946 seven countries out of the sixteen included in table VII had not yet reached 80 per cent. of their 1937 production level and three countries had reached only 60 per cent., while by the first half of 1948 only two countries remained below 80 per cent.—the Netherlands and Japan—and only one—Germany (the Ruhr)—below 60 per cent. ¹

¹ In connection with Western Germany (the bizon and the Saar) it will be noted that there are certain discrepancies between the figures given in the present Section and those in Section II. These are due to the fact that in coal statistics there is an increasing tendency to regard the year 1937 as the reference year for the pre-war period, while the occupation authorities in Germany still use the year 1936 for purposes of comparison. For the sake of comparability, it was therefore necessary to refer to the year 1937 as an index in Section I and to 1936 in Section II. Since production in Germany was higher in 1937 than in 1936, it follows that the data vary according to the year against which they were calculated. It should also be pointed out that the figures in the present Section refer to hard coal or lignite, while those in table X refer to solid fuel as a whole.

While the comparative data in table VII have the merit of showing the rate of progress from year to year for each country, on the other hand they are inadequate to give an idea of the development of the international coal position. In fact, there is no common measure between a variation of one point, for example, in the case of Turkey, which has doubled its 1937 production figure, and a variation of one point for the United Kingdom, which still remains at 12 per cent. below its 1937 production figure. When the United Kingdom gains one point, this represents 2,430,000 tons; in the case of Turkey, one point means a difference in either direction of 23,000 tons. When the bituminous coalfields of the United States lose one point, or Italy gains one, the balance is not thereby re-established. In the former case, the market loses more than four million tons; in the latter it gains only 14,760 tons.

Production, then, should also be given in figures, and as much as possible, figures covering all parts of the globe, in order to gain a better idea of the demands of distribution, which make and unmake the commercial outlets of coal. Tables VIII and IX have been drawn up for this purpose. Some gaps will be noted, which unfortunately it has been impossible to fill, since precise and reliable information was not available.

A survey of hard coal production on the basis of table VIII shows that in 1946 Europe produced 167,000,000 tons less than in 1937. There was a slight improvement during 1947, when the deficit as compared with the 1937 figure was in the neighbourhood of 120,000,000 tons. In the absence of definitive data for 1948, it is not easy to state at what rate the ascending curve will pursue its course, but the balance-sheet for the first half of the year also indicates progress, although at a lesser rate than during 1947. Between 1946 and 1947, the coefficient rose from 71 to 79 (100 for 1937), registering a gain of eight points, whereas according to the production average for the first half of 1948 the gain over 1947 does not appear likely to exceed six points.

The fact remains that if average production during the latter half of 1948 was maintained at the level of that of the first half of that year, Europe in 1948 would have 83,441,000 tons more than in 1946. Nevertheless it would still be about 84,000,000 tons short by comparison with 1937, which is roughly accounted for by the fact that the United Kingdom (31,400,000 tons) and Western Germany (55,100,000 tons) are still lagging behind. The "coal" recovery of Europe is above all dependent on the recovery of these two countries, which are the chief producer nations of Europe.

TABLE VIII. EUROPE¹: PRODUCTION OF HARD COAL AND LIGNITE IN 1937, 1946, 1947 AND THE FIRST HALF OF 1948

(Thousands of metric tons)

Country	Hard coal				Lignite			
	1937	1946	1947	1st half 1948	1937	1946	1947	1st half 1948
Western Europe:								
Belgium	29,856	22,788	24,384	12,975	—	—	—	—
Spain	7,017*	10,692	10,476	5,137	304*	1,332	1,155	693
France	44,340	47,208	45,240	24,955	1,020	2,088	2,088	909
Saar	13,368	7,884	10,488	5,882	—	—	—	—
United Kingdom	243,555	192,625	203,022	106,061	—	—	—	—
Italy	1,476	1,176	1,224	563	876	1,548	1,872	518
Ireland	132	216	—	95	—	—	—	—
Netherlands . .	14,316	8,316	10,104	5,491	144	504	480	165
Portugal	259	380	372	181*	23	141	108	48*
Central Europe:								
Western Germany:								
British Zone .	137,580	53,964	71,124	40,573	60,948	47,328	55,068	28,957
United States								
Zone	1,512	1,320	1,404	657	4,788	3,360	3,924	1,959
Austria	230	104	178	87	3,238	2,400	2,832	1,623
Hungary	912	720	1,056	605	8,052	5,628	7,750	4,439
Poland	66,012*	47,292	59,136	33,341	—	—	4,764	2,399
Czechoslovakia .	16,776	14,160	16,308	8,952	17,892	19,452	22,380	11,836
Turkey	2,304	3,828	3,960	2,292	229	516	708	417
Northern Europe:								
Norway	296	92	342	254	—	—	—	—
Sweden	300*	300*	252*	132*	—	—	—	—
Total	580,241*	413,065	459,970	248,253	97,513*	84,297	103,129	53,962
Percentage of 1937 . .	100	71	79	85	100	86	106	112

Sources: Official national publications; European Coal Committee; Economic Commission for Europe (Coal Division); Monthly Statistical Bulletin of the United Nations; Records and Statistics, Supplement to The Economist.

* = no figures available.

¹ Without the U.S.S.R. * Figures for 1935. * Half-year calculated on the basis of production for the first five months. * Including the former basins of German Silesia, now forming part of Poland. * Lignite converted into an equivalent of hard coal. * In the absence of precise data for the years 1946, 1947, 1948, or because of their low rate of production, Bulgaria, Greece, Yugoslavia, Rumania and Switzerland are not included in this table. In 1937, the combined production of these countries amounted to 866,000 tons of hard coal and 8,377,000 tons of lignite. In the 1937 total lignite production does not appear for countries now forming the U.S.S.R. Zone in Germany (about 120,000,000 tons).

It should, incidentally, be noted that the United Kingdom and Germany both contributed to the improvement which occurred between 1946 and 1948. For 1948—provided that the second half of that year was as favourable as the first, and except in the case of France, because of the October-November strikes, there is no reason to suppose that production has slackened—the United Kingdom will have contributed to the progress achieved in Europe over the 1946 figures to the extent of 19,500,000 tons; Western Germany, 27,200,000 tons; Poland, 19,300,000 tons; the Saar, 3,800,000 tons; Belgium, 3,300,000 tons; Czechoslovakia, 3,000,000 tons; France, 2,800,000 tons; the Netherlands, 2,700,000 tons; Turkey, 800,000 tons, to quote only the largest contributions.

With regard to lignite, the position appears to be more favourable. It is true that it cannot replace coal in some of its most important uses, but its utilisation in power-stations, in the chemical and synthetic industries, and for domestic purposes is a considerable factor. Lignite consumption enables the countries which produce it either to reduce their coal import requirements, if they are normally forced to import, or, if they are exporter nations, to release some of their coal for export.

By 1947, lignite production had exceeded the 1937 level by some 5,500,000 tons. Progress continued during 1948.

In table VIII, the lignite production in Germany for 1937 does not include the production of the territories now in the Soviet occupation zone; it may thus be observed that in the bizonal production figure for 1948, calculated on the basis of the production for the first six months, should have reached 95 per cent. of the 1937 level. Still on the basis of the first half of 1948, it would appear that Czechoslovakia (134 per cent.), Hungary (110 per cent.), Austria (100 per cent.), Spain (456 per cent.), Italy (118 per cent.), the Netherlands (230 per cent.), Portugal (347 per cent.), Turkey (365 per cent.), and Poland have reached and sometimes greatly exceeded their lignite production figures for 1937.

Table IX summarises the coal situation in the other Continents.

From table IX it may be inferred that progress in regard to hard coal, by comparison with 1937, has been general except for Asia. On the basis of the first six months of 1948, Latin America during that year should have exceeded its 1937 production figure¹ by 1,650,000 tons; Africa, owing to the development of the coalfields in the Union of South Africa, will have shown an increase of nearly 11,000,000 tons; and Oceania will have advanced by 1,500,000 tons. But valuable though these results may be, it is the figures for North America, especially for the United States, that claim our attention. In the United States, during the period 1937-1947, hard coal production has risen from 449,910,000 tons to 613,132,000 tons, i.e., an increase of 163,222,000 tons. During the first half of 1948, production was affected by the strike that occurred early in the year, but it nevertheless amounted to 281,756,000 tons, and in all probability the production figure for the second half will help to raise production for 1948 to a figure around 585,000,000 tons.

¹ The Economic Commission for Latin America has recommended that study be made of the resources of that part of the world, and this will also cover fuel resources.

TABLE IX. THE WORLD EXCLUDING EUROPE¹: PRODUCTION OF HARD COAL AND LIGNITE IN 1937, 1946, 1947 AND THE FIRST HALF OF 1948

(Thousands of metric tons)

Country	Hard coal				Lignite			
	1937	1946	1947	1st half 1948	1937	1946	1947	1st half 1948
North America:								
United States:								
Bituminous coal ²	402,877	484,267	561,433	255,981	—	—	—	—
Anthracite	47,033	54,880	51,699	25,775	—	—	—	—
Canada	13,416	14,772	12,948	6,923 ³	960	1,380	1,428	851 ⁴
Total	463,326	553,919	626,080	288,679	960	1,380	1,428	851
Percentage of 1937	100	120	135	124	100	144	148	177
Latin America:								
Brazil	768	1,896	1,944	969	—	—	—	—
Chile	1,992	1,956	2,076	1,113	—	—	—	—
Mexico	912	983	1,039	579 ⁴	—	—	—	—
Total	3,672	4,835	5,059	2,661	—	—	—	—
Percentage of 1937	100	133	138	145	—	—	—	—
Africa:								
North Africa	120	432	468	261	—	96	84	37
Union of South Africa	15,168	23,280	22,968	12,874	—	—	—	—
Total	15,288	23,712	23,436	13,135	—	96	84	37
Percentage of 1937	100	154	153	172	—	—	—	—
Asia:								
China ⁵	22,520	15,000 ⁶	20,000 ⁶	*	—	—	—	—
India ⁷	22,692	26,796	27,348	14,010	—	—	—	—
Japan	45,264	20,376	27,240	16,479	120	2,352	2,820	1,490 ⁸
Total	90,476	62,172	74,588	30,489	120	2,352	2,820	1,490
Percentage of 1937	100	69	82	—	100	1,960	2,350	2,483
Oceania:								
Australia	12,264	14,112	14,664	6,853	3,444	5,796	6,240	3,106 ⁸
New Zealand	984	1,056	1,104	517	1,332	1,752	1,692	874
Total	13,248	15,168	15,768	7,370	4,776	7,548	7,932	4,070
Percentage of 1937	100	114	119	111	100	158	167	171

Sources: As for table VIII.

* = no figures available.

¹ No figures are given for low-production countries. ² Including small quantities of lignite converted into the equivalent of hard coal. ³ Calculated on the basis of production figures for the first five months. ⁴ Calculated on the basis of production figures for the first four months. ⁵ Excluding the output of Manchuria, Formosa and Kwantung. ⁶ Estimates. ⁷ Data referring to 90 per cent. of the country's output. From August 1947, exclusive of Pakistan.

In Asia, events in China have undeniably had a direct effect upon the working of the mines in that country, but information on production is inadequate. In India, production between 1937 and 1947 has increased by more than 4,600,000 tons. Finally, the Japanese coalfields are gradually coming to life again, and if the rate for the first half of 1948 were maintained during the second, their production figure for 1948 will amount to 73 per cent.

of that for 1937, with an increase of 12,600,000 tons over 1946.

The United Nations Economic Commission for Asia and the Far East has made a study of the fuel and power problem in that part of the world, and, when it was concluded, published a document¹ which shows that an acute coal shortage obtains in that area which may be ascribed partly to growing needs and partly to declining production, which is largely due to war devastation. This coal shortage naturally hinders the development of all the other industries, already severely handicapped by the uneconomic utilisation in those regions of the classes of coal available. China, India, Indochina, Indonesia, the Philippines and Japan are planning to increase their coal production within the next few years.

Table IX further shows that lignite is not produced to any great extent outside Europe. Australia, New Zealand, and Japan produce lignite, but only in extremely small quantities.

Europe and Asia are still below their 1937 production standards; while North America, Latin America, Africa and Oceania, have exceeded their figures for that year. Table X recapitulates the position and gives a general survey of the world coal industry, despite the absence of data concerning the U.S.S.R., the Soviet occupation zone in Germany, Manchuria and some other minor producer countries.

TABLE X. SUMMARY OF THE PRODUCTION OF HARD COAL AND LIGNITE BY CONTINENTS¹

(Thousands of metric tons)

Continent	Hard coal				Lignite			
	1937	1946	1947	1st half 1948	1937	1946	1947	1st half 1948
Europe	580,241	413,065	459,970	248,253	97,513	84,297	103,129	58,962
North America	463,326	553,919	626,080	288,679	960	1,380	1,428	851
Latin America	3,672	4,835	5,059	2,661	—	—	—	—
Africa	15,288	23,712	23,436	13,135	*	96	84	37
Asia	90,476	62,172	74,588	30,489 ²	120	2,352	2,820	1,490
Oceania	13,248	15,168	15,768	7,370	4,776	7,548	7,932	4,070
Total	1,166,251	1,072,871	1,204,901	590,587	103,369	95,673	115,393	58,416
Percentage of 1937	100	93	104	101	100	93	112	114

* = no figures available.

¹ Excluding the U.S.S.R., the Soviet occupation zone in Germany, and the countries not included in tables VIII and IX.

² China is not included in the figures for the first half of 1948.

¹ Report and Recommendations for Industrial Development, by the Industrial Development Working Party of ECAFE (E/CN.11/131), 31 Oct. 194

Thus it appears that world production as a whole—with the exception of countries not included in tables VIII and IX—in 1947 exceeded the 1937 production figure by 38,600,000 tons, and that the figure for 1948 will, in all probability, be at least equal to this.

THE COAL MARKET

If all the factors had remained constant, there would have been every justification for the idea that, since world production today is in excess of that in 1937, all that is now required to restore the balance disturbed by the war is simply to arrange for inter-continental equalisation, even though the cost of transport might be considerable. But the factors have not remained constant. Since 1937, under the influence of factors that vary according to Continents, national needs have either increased to such an extent as to absorb a large quantity of the surplus production, or else they have remained as they were while production has decreased. Thus, despite the increased quantity of coal available throughout the world, and attempts at inter-continental equalisation, there still remain areas where there is a shortage or insufficiency of coal.

The figures in table XI, which deal with four of the major producer countries, show to what extent consumption has increased or remained at its pre-war level in those which may justifiably be regarded as the main suppliers of coal to non-producer countries or to those whose production is insufficient.

TABLE XI. CONSUMPTION OF MAJOR COAL-PRODUCING COUNTRIES
FOR 1937, 1947 AND THE FIRST HALF OF 1948

(Thousands of metric tons)

Country	1937	1947	1st half 1948
United States ¹	438,152	543,223	263,937
United Kingdom	190,726	189,814	100,112
Western Germany ²	104,900 ³	82,688	*
Poland	24,812	31,856	17,121

Sources: Official national publications; Economic Commission for Europe (Coal Division); *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*.

* — no figures available.

¹ Apparent consumption of bituminous coal and anthracite, plus small quantities of lignite.

² The bizon and the Saar.

³ Figure for 1936.

Thus, while production in the United States increased by 163,200,000 tons between 1937 and 1948, consumption also increased by 105,000,000 tons. In the United Kingdom, although the 1947 production figure was below 39,500,000 tons, consumption was within a million tons of the figure for 1937, and, on the basis of the figures for the first half of 1948, it promises to be even higher than that by the end of that year, despite the fact that fuel for domestic use is still rationed.

For Western Germany, if consumption is below that for 1936, this is due to the fact that the fulfilling of requirements is regulated by the output of the German coalfields on the one hand, and limited by the proportion of this output which, by the terms of the revised Moscow Agreement ¹, must be reserved for export, on the other hand.

In Poland, where the structure of the country suffered as a result of frontier changes, consumption also increased between 1937 and 1948. On the basis of the figures for the first half of 1948, it will presumably reach 34,000,000 tons, *i.e.*, more than nine million in excess of the pre-war figure. However, as will be seen below, the frontier changes also resulted in greater coal production facilities.

* * *

Before the war, the United Kingdom was the main source of coal supply for those countries that had none or little themselves. The United Kingdom alone in 1937 provided 36.8 per cent. of world coal exports. Germany, which came next with 26.8 per cent. of world exports, was the second great source of coal supply. For different reasons, these two sources had dried up by the end of the Second World War. Thus, to meet the immediate and urgent needs of an economically dislocated world, new commercial circuits had to be established and the United States coal had to be substituted everywhere for the supplies that had failed, but which were, nevertheless, more than ever essential to the lives of the people. The traditional distribution currents throughout the world, then, have changed since 1944, not as a result of competition, of which past history contains many examples, but rather as a result of an appeal for American coal. Table XII shows to what extent the United States has responded to this appeal, and how the United States coal has assisted in the recovery of world economy.

¹ See Section II of this Chapter.

TABLE XII. UNITED STATES : DEVELOPMENT OF SOLID FUEL
EXPORTS ¹ (1937 TO FIRST HALF OF 1948)

(Short tons of 907 kilos)

Countries of destination	1937 ^a	1945	1946	1947	1st half 1948
<i>North and Central America :</i>					
Canada	14,430,002	26,441,916	27,431,757	31,142,197	11,791,402
Other countries	825,831	602,405	496,901	754,411	244,303
Total	15,255,833	27,044,321	27,928,658	31,996,608	12,035,705
<i>South America :</i>					
Argentina	19,617	316,168	487,289	1,183,189	684,718
Brazil	209,990	675,879	1,092,982	1,493,505	380,170
Other countries	39,885	112,835	161,768	300,964	40,419
Total	269,492	1,104,882	1,742,039	2,977,658	1,105,307
<i>Europe :</i>					
Azores	—	4,698	1,608	6,966	—
Austria	—	—	—	102,029	58,447
Belgium and Luxembourg	3,787	571,412	1,665,329	4,860,766	840,004
Denmark and the Faroe Islands	—	214,706	1,060,464	2,418,173	52,136
Fthland	—	—	265,370	637,271	2,406
France	2,582	669,369	5,850,831	13,958,133	5,417,564
Free Territory of Trieste	—	—	—	—	50,052
Germany	—	—	—	54,202	70,777
Gibraltar	—	144,603	9,330	156,884	—
Greece	—	37,350	91,676	34,056	62,830
Ireland	—	—	11	1,022,170	32
Italy	9,156	1,119,453	4,935,962	8,996,437	2,786,283
Netherlands	4,128	433,776	1,700,830	2,745,208	517,717
Norway	564	353,610	753,376	995,295	21,254
Portugal	—	356,142	464,251	849,402	121,544
Spain	—	112	—	—	—
Sweden	—	225,952	1,015,043	2,709,083	387,441
Switzerland	2,800	137,006	333,523	805,439	237,782
United Kingdom	1,034 ^a	—	—	675,057	—
Yugoslavia	—	—	59,906	—	—
Total	24,051	4,268,190	18,307,517 ^a	41,026,972 ^a	10,626,269
<i>Asia :</i>					
Various countries	23,810	161	207,040	353,116	164,454
<i>Australia and Oceania :</i>					
Various countries	—	4,476	37,487	107,553	3
<i>Africa :</i>					
French Morocco ^a	—	76,955	47,031	92,020	41,400
Algeria	11,193	561,830	551,350	1,062,419	311,510
French West Africa	—	67,229	40,505	244,766	60,971
Other countries	1,155	167,502	238,861	683,702	55,025
Total	12,348	873,516	877,747	2,082,907	468,906
Total exports	15,585,534	33,295,546	49,100,488	78,544,814	24,400,644

Source : Data supplied by the Bureau of Mines (Coal Economics Branch).

¹ Excluding bunker coal. ^a For 1937, briquettes, which were exported in small and limited quantities to North Africa, are not included. ^b Including Northern Ireland. ^c Including 7 tons of coke to Poland. ^d Including 392 tons to Malta, Gozo and Cyprus. ^e Including Tangier.

As may be observed from table XII, the United States before the war exported little coal, in comparison with their coal production—barely 3.5 per cent. Out of the 15,600,000 short tons which left the country, 14,400,000 went to Canada. Europe, throughout 1937, received in all only three cargoes—24,051 short

tons in all. These figures, compared with those for 1945, 1946 and 1947, clearly show the effort made by the United States as well as the extent of the crisis due to the absence from the international market of British, German and Polish coal. In 1947, not three, but more than five thousand cargoes of coal arrived in Europe, representing a total of 41,000,000 short tons of American coal.

Other Continents also received their share : exports of American coal to South America rose from 269,492 tons in 1937 to 2,977,658 in 1947. Africa, especially the French territories, received more than two million tons in 1947, as against 12,348 in 1937.

Thus, the various countries of the world received 78,500,000 short tons of American coal in 1947, i.e., nearly 63,000,000 more than in 1937. The figures for the first half of 1948 show a change in the situation. Total exports amount to 24,400,000 short tons, including 10,600,000 for Europe.

This drop in United States coal exports during the first half of 1948 may be interpreted as the effect of the process of rehabilitation in some of the national coal industries, especially in Europe. Parallel with the increased production noted in certain countries, therefore, the post-war export circuits tend to change. On the international market, American coal is no longer alone. There are others now to feed the world economic machine; Polish coal, as well as German and British, are finding their way into the market and are gradually assisting recovery in certain geographical areas.

How can this recovery be observed, and how fast is it proceeding? This should be examined. Table XIII indicates, as a first step, the increase in Polish coal exports.

The incorporation into Poland of the former German Silesian coal basins provides that country with an exportable surplus which makes it the greatest coal exporting nation of Europe today, with exports amounting to 23,000,000 tons in 1947 and probably to 28,000,000 tons in 1948. The Soviet occupation zone in Germany is the chief customer for the Silesian coal, which is quite natural, since before the war that country also received coal from these same Silesian coalfields; in 1947 the U.S.S.R. received 4,600,000 tons and probably received 5,400,000 tons by the end of 1948. The U.S.S.R. is a new and important customer on the European coal market; it bought 9,200,000 tons of hard coal in 1946, and certainly about the same amount in 1947; in 1948, exports to the U.S.S.R. will probably be found to have been less than during 1947, while they are higher for all the other countries mentioned in

TABLE XIII. POLAND: DEVELOPMENT OF SOLID FUEL EXPORTS
(1937 TO FIRST HALF OF 1948)

(Thousands of metric tons)

Countries of destination	1937	1946	1947	1st half 1948
Austria	843	149	858	685
Belgium	769	—	433	240
Bulgaria	—	— ¹	—	—
Dantzig (Free City) . .	366	—	—	—
France	1,542	585	536	883
Germany	13	574 ²	4,631 ³	2,700 ³
Greece	95	—	—	—
Hungary	18	151	—	159
Italy	1,636	60	425	230
Netherlands	327	3	294	141
Rumania	18	115	—	—
Switzerland	119	258	680	146
United Kingdom	— ¹	—	116	52
Czechoslovakia	49	118	1,025	1,057
U.S.S.R.	—	9,237	— ³	— ³
Yugoslavia	6	219	117	168
Denmark	303	700	1,040	1,011
Finland	297	62	649	559
Norway	438	355	637	589
Sweden	2,789	2,086	2,508	1,703
Algeria	124	—	—	—
Egypt	103	—	—	—
West Africa	107	—	—	—
Argentina	256	—	—	—
Brazil	20	—	—	—
Other countries	223	—	9,054 ³	3,674 ³
Total, exclusive of bunker coal	10,541	14,673	23,064	14,098
Bunker coal	1,195	323	406	283
Total, inclusive of bunker coal	11,736	14,996	27,470	14,381

Sources: Data supplied by *Coal Statistics (Poland)* of the European Coal Organisation, and by the Economic Commission for Europe (Coal Division).

¹ Less than 500 tons.

² Soviet Zone. For 1946, the export of 1,193,722 tons of lignite should be added. The figure for 1947 includes all solid fuel exports.

³ The Soviet Union is included among "Other countries" for 1947 and 1948.

table XIII, with the exception of the United Kingdom and Switzerland.

The Scandinavian countries already receive more Polish coal than before the war. On the European Continent, Greece still

remains outside the Polish market, Italy imports less than before, the purchases of Belgium and the Netherlands are roughly similar to those which they made during 1937, while the other countries have again reached the 1937 level, or indeed have exceeded it to a considerable extent, e.g., Czechoslovakia, Yugoslavia, Hungary and Austria. Of Poland's former customers, only South America and Africa have not begun to buy Polish coal again; it is true they never bought very much—barely 600,000 tons in all.

In Section II of the present Chapter will be found a detailed explanation of the position of the coal industry in Germany; but table XIV enables a comparison to be made between the German coal situation in relation to the international economy and the situation of the Polish and British coal industries.

TABLE XIV. WESTERN GERMANY (BRITISH AND FRENCH ZONES):
DEVELOPMENT OF SOLID FUEL EXPORTS
(1946 TO FIRST HALF OF 1948)

(Metric tons)

Countries of destination	1946		1947		1st half 1948	
	British zone	French zone	British zone	French zone	British zone	French zone
Austria	2,105,903	7,664	2,155,348	12,735	1,516,058	8,096
Belgium	1,527,515	—	888,442	—	629,554	—
Denmark	1,480,765	—	842,850	—	374,442	—
Finland	86,725	—	150,447	—	118,782 ¹	—
France	1,989,630	1,298,268	1,927,319 ²	1,113,249	1,894,193	198,489 ³
French North Africa	78,323	—	—	—	—	—
Greece	57,541	—	201,875	—	127,641 ⁴	—
Hungary	—	—	—	—	13,478 ⁵	—
Italy	596,211	1,000	963,369	29,088	705,271	8,457
Luxembourg	1,356,084	117,622	1,455,898	209,006	1,034,200	112,202
Netherlands	1,423,589	—	1,071,641	—	848,438	—
Norway	635,851	—	454,044	—	170,048 ⁶	—
Portugal	61,607	—	103,786	—	49,359	—
Sweden	156,925	—	178,134	—	354,935	—
Switzerland	61,069	8,107	156,085	12,622	196,815	49,351
Yugoslavia	47,386	—	1,143	—	—	—
Total, exclusive of bunker coal	11,665,124	1,427,661	10,550,381	1,376,700	8,033,204	376,595 ⁷
Bunker coal (foreign trade)	292,616	—	210,154	—	134,808	—
Total, inclusive of bunker coal	11,957,740	1,427,661	10,760,535	1,376,700	8,168,012	376,595

Sources: *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*; Economic Commission for Europe (Coal Division).

¹ For five months (February-June). ² Inclusive of exports to French North Africa. ³ January and February only. After the economic union of the Saar with France, consignments to France are no longer considered as exports. ⁴ For five months (nothing in May). ⁵ For one month (June). ⁶ For five months (nothing in May). ⁷ No coal sent from the Saar to the bizon or to the French zone is included, since these quantities free equivalent quantities which appear in the exports from the British zone.

As will be seen later, the revised Moscow Agreement, concluded between the United States, the United Kingdom and France, has established a sliding scale of exports, regulating them according to variations of the daily output of the Ruhr and Aix-la-Chapelle coalfields. On the basis of actual exports for the first half of 1948, solid fuel exports from Western Germany may be assessed at nearly seventeen million tons. It is true that most of the former

TABLE XV. UNITED KINGDOM: DEVELOPMENT OF EXPORTS OF HARD COAL, COKE AND PATENT FUEL, AND BUNKER COAL (1946 AND 1947, AND FIRST EIGHT MONTHS OF 1938, 1947 AND 1948)

(Long tons of 1,016 kilos)

Countries of destination	1946	1947	First eight months		
			1938	1947	1948
Ireland	1,284,152	508,652	1,651,220	357,254	1,015,961
Canada	85,965	47,898	752,156	26,031	103,654
Other British territories	537,211	278,990	870,540	176,637	476,560
Finland	43,639	—	759,780	—	249,033
Sweden	46,344	1,511	1,770,208	758	752,975
Norway	22,997	—	910,426	—	45,489
Iceland	68,564	397	82,516	997	16,012
Denmark	559,861	21,330	1,997,906	21,330	432,394
Germany	—	—	2,458,294	—	46,493
Netherlands	26,218	—	592,956	—	346,593
Belgium	89,100	791	438,604	791	60,832
France	748,591	2,002	4,103,640	2,002	438,257
Portugal	88,162	15,078	475,866	11,027	233,993
Spain	78,977	9,411	669,266	4,404	264,474
Italy	114,537	2,196	1,506,788	2,196	472,759
Algeria	252,938	9,716	591,214	9,716	18,341
Tunisia	65,740	6,426	123,298	6,426	4,997
French West and French Equatorial Africa	67,752	—	87,368	—	9,441
Egypt	22,967	1,815	1,051,122	1,815	209,441
Morocco	51,537	6,593	34,828	6,593	22,066
Brazil	12,061	—	354,210	—	81,802
Uruguay	5,343	—	190,144	—	54,336
Argentina	2,940	—	1,853,004	—	469,302
Other countries	178,901	54,217	1,078,216	33,174	244,996
Total, hard coal	4,454,497	1,056,933	23,904,151	640,461	6,070,701
Coke and patent fuel	497,006	72,380	1,326,000 ¹	48,253 ¹	425,295
Total hard coal, coke and patent fuel, exclusive of bunker coal	4,951,503	1,129,313	25,230,151	688,714	6,495,996
Bunker coal shipped for the use of steamers, etc., engaged in the foreign trade (including trawlers but excluding coastwise bunkers)	4,719,234	4,888,656	6,992,632	2,912,742	3,609,953
General total (hard coal, coke and patent fuel, and bunker coal)	9,670,737	5,517,969	32,222,783	3,601,456	10,105,949

Sources: Data published by: *Accounts relating to Trade and Navigation of the United Kingdom; Coal and Colliery News*; Economic Commission for Europe (Coal Division).
¹ Average calculated over the twelve months of the year.

customers for German coal do not as yet by any means receive their pre-war quotas, but the position during the early months of 1948 compares favourably with that during 1947.

As may be seen from table XV, British coal is also reappearing on the international market. To the export figures of 1946 and 1947 has been added, for purposes of comparison, a statement of the exports for the first eight months of 1938, 1947 and 1948, in order to enable a more exact appraisal to be made of the rate of progress during 1948.

The increase in British solid fuel exports was particularly notable for the first eight months of 1948, when compared with the corresponding period of 1947—6,495,996 long tons, as against 688,714. It largely counterbalances the regression in 1947 by comparison with the results for 1946. But the export figures for 1938 are as yet far from being reached; the present figures barely amount to 34.4 per cent. of those for 1938, even including bunker coal, and 25.7 per cent, without bunker coal.

It is nevertheless interesting to stress the point that in 1948 British coal was sent—sometimes in quite considerable quantities—to all the countries which before the war had been in the habit of receiving it, while during 1947 no exports at all of British coal were registered to such countries as Finland, Norway, Germany¹, the Netherlands, French West and French Equatorial Africa, Brazil, Uruguay and Argentina, and only very small quantities to Canada, Sweden and Belgium.

* * *

The progress made by British, Polish and German coal on the international market has just been discussed. It may now be of interest also to consider what position each occupies by comparison with the others in relation to American coal. In drawing up table XVI for this purpose, comparable elements have been reverted to, at any rate as far as possible, between countries and periods. Exports from the United States and the United Kingdom have been transposed into metric tons; 1937 is used as reference year for all four of the countries; finally, for the United Kingdom, as for the other countries, the data are confined to the first half of 1948.

The figures in table XVI give rise to a number of observations. First, in 1947 the combined volume of exports of these four coun-

¹ By sending coal to Germany, especially to Northern Germany, it has been possible to free certain quantities of German fuel for export to other European countries.

TABLE XVI. EXPORTS OF SOLID FUEL FROM THE FOUR PRINCIPAL EXPORTING COUNTRIES IN 1937, 1946, 1947 AND THE FIRST HALF OF 1948¹

(Thousands of metric tons)

Country	1937		1946		1947		1st half 1948	
	Actual figures	%	Actual figures	%	Actual figures	%	Actual figures	%
United Kingdom . . .	44,160	41.6	5,031	6.5	1,147	1.1	3,965	8.2
Western Germany ² . .	37,500	35.1	13,093	16.9	11,927	11.1	8,410 ³	17.3
United States	14,136	13.4	44,534	57.6	71,240	66.3	22,131	45.5
Poland . . .	10,541 ⁴	9.9	14,673	19	23,064	21.5	14,098	29
Total . .	106,337	100	77,331	100	107,378	100	48,604	100

¹ Exclusive of bunker coal.

² The bizon and the Saar.

³ Including coal sent to France in January and February, exclusive of coal sent to the three Western occupation zones.

⁴ Pre-war frontier.

tries exceeded by one million tons the figure for 1937. Secondly, the United Kingdom, during 1947, was practically absent from the market, while in 1937 it took the lead. Thirdly, for the first time since the war, the three European countries, during the first half of 1948, exported between them more than the United States, their export figures being 54.5 per cent., as against 42.4 per cent. in 1946 and 33.7 per cent. in 1947. Finally, while during the first half of 1948 the British position showed improvement, Poland has nevertheless been since 1946 the greatest of these three European sources of supply.

The question will doubtless arise, what may be the respective importance in the future of European sources of supply on the international coal market. This question as yet remains exceedingly complex, and not only the exporting countries—large and small—are involved, but also the importing countries, whose needs may vary, as regards both quantity and quality, as a result either of their own efforts at production, or of different methods of using coal, or of their financial situation. Numerous factors, widely differing in character, will affect the subsequent development of the international coal market and the place which the various national coal industries will take in it.

The production factor naturally remains foremost in importance, but it takes on an increasingly precise form, *i.e.*, in addition to the quantity to be produced, which during the years 1945-1947 was the only consideration that counted, attention must now be paid to the economic conditions under which the coal is produced. This holds good for all the coalfields, irrespective of their form of ownership.

The factor of qualities and types of fuel is once more gaining in importance as coal becomes more plentiful. Only recently the consumers, forced thereto by circumstance, would burn any kind of fuel, even if it was ineffective in the use to which it was put, or even if it were altogether too expensive for the use to which it was put. The main consideration was to get fuel at all. Today, the consumer is beginning to demand the type and quality of coal which he really needs. The price factor, together with the factor of means of payment, which had been relegated to the background while the shortage was acute, once more plays a part in international transactions. And on the solutions that are found to these various problems will depend the future development of the international coal market.

INTERNATIONAL CO-OPERATION

There was no doubt that once the coal famine which has been torturing the world in recent years was, at any rate partly, assuaged, adjustments between national coal economies would become necessary to avoid a relapse into the distressing situation that obtained during the inter-war period, with its disastrous social corollary. The Coal Mines Committee discussed this matter during its Second Session, "having considered that the social advantages . . . will be endangered so long as the economic balance of the coal mining industry is not itself ensured against risk of disturbance by economic measures tending to stabilise production and distribution".¹ And the Committee recommended that the Governing Body should draw the attention of the Governments concerned and the competent international bodies to these considerations, in order that in the rational use of coal resources the factors of economic balance should be taken into account, and that the

¹ Cf. International Labour Organisation, Coal Mines Committee: *Record of the Second Session* (Geneva, April 1947), Resolution concerning Appropriate Measures for Safeguarding the Economic Balance of the Coal Industry with a View to the Protection of the Social Rights of Mine Workers (Geneva, 1948), p. 196.

social rights acquired by the miners under the principles recommended by the Coal Mines Committee should be observed. At the same time the Committee recommended that close contact should be maintained between the competent international bodies and the International Labour Office.

Contact has been maintained between the International Labour Office (Industrial Committees Section—Mines) and the European Coal Organisation, first of all, and subsequently the Coal Committee of the Economic Commission for Europe and its Coal Division, after the activities of the European Coal Organisation were transferred to the E.C.E.

In the General Report prepared for the Second Session of the Committee an explanation was given of the functions and work of the European Coal Organisation, and the practical results which it achieved.¹ The Economic Commission for Europe set up by the United Nations and having its headquarters at Geneva, decided to set up a number of committees to deal with specific branches of industry, including one on coal; and on 1 January 1948, the European Coal Organisation was officially merged with this.

The main functions of the European Coal Organisation, then, have been taken over by the Coal Committee of the Economic Commission for Europe (E.C.E.), and this is the body now responsible for facilitating the supply and equitable allocation of coal, as well as of equipment and supplies for the European mines. The internal organisation of the Coal Committee, for which the Coal Division of the E.C.E. is responsible, has, by and large, remained as it was during the days of the European Coal Organisation, with its two main branches, the Allocation Subcommittee and the Production Subcommittee, each of which has its own working parties: the former, an allocations working party, a briquetting pitch working party, and utilisation working party; the latter, a mining equipment working party, a pitwood working party and a statistical working party. The very character of these working parties indicates the variety of the work done by the Coal Committee, in addition to that previously mentioned—pitwood supplies for mines, allocation of pitch, finding the best utilisation of solid fuel, standardised classification of the various types of solid fuel, etc.

The Coal Committee has continued the publication of the *Weekly Statistical Report*, the *Monthly Statistical Summary* and the

¹ International Labour Organisation, Coal Mines Committee, Second Session, Geneva, 1947: *General Report* (Geneva, 1947), p. 18 et seq.

Monthly Bulletin of Coal Statistics, and it continues with the same respect for methodical classification. Finally, within the framework of the E.C.E., very valuable co-operation has been established between the Coal Committee and other committees such as those on transport, power, raw materials (steel, timber, fertilisers), co-operation which has enabled practical solutions to be found to specific problems (allocations of metallurgical coke to iron and steel producing countries in order to increase their steel output, of domestic coke to free stocks of pitwood, etc.).

Since the Coal Committee has taken over the methods of allocation applied by the European Coal Organisation, it is unnecessary to refer to the mechanism of Pools A and B, which was described in detail in the General Report for the Second Session of the Committee, but mention should be made of two important facts which occurred in the course of 1948. One of these is an agreement unanimously reached by the Committee on the methods to be employed in organising the European coal market, and the other on the substitution of a system of allocations of coal by quality for the original system of allocation of total quantities without any special reference to quality. This change of system arises from the putting into practice of the principles enunciated in that agreement.

With regard to the organisation of the European market, the Coal Committee had before it a proposal made by Poland. After a detailed study of the various aspects of this complex—and sometimes delicate—question, the Committee, during its 4th Session (August 1948), unanimously agreed on an amended and adapted text, the importance of which is such that it deserves to be communicated to the Coal Mines Committee in full.

The Coal Committee :

Recognises :

1. That one of its chief tasks in the coming years is the attainment, as in the past, of European self-sufficiency in regard to solid fuels.
2. That this objective is to be attained by
 - (a) a gradual increase in European coal production,
 - (b) appropriate action to facilitate the most efficient distribution of the maximum quantities of European coal, taking into account all technical and economic factors,
 - (c) an allocations policy aimed at assisting importing countries to meet their requirements in coal of various qualities from European sources.

Resolves :

1. In regard to the necessary increase in production, that efforts hitherto made in this direction should be continued and intensified,

and that the attention of Governments and international organisations where appropriate should be drawn to the need for :

- (a) increasing the export availabilities of mining equipment, taking into account the legitimate home requirements of the exporting countries;
- (b) adequate funds being provided for the purchase of mining equipment;
- (c) facilitating the flow of mining supplies.

2. In regard to the other above-mentioned measures for achieving European self-sufficiency, that the following procedure should be the basis on which the Allocations Subcommittee will in future recommend allocations :

- (i) European importing countries will notify the Secretariat of their quarterly import requirements by qualities. European countries which are both importers and exporters of solid fuel will notify both their quarterly import requirements and their quarterly export availabilities by qualities on the same form.
- (ii) European exporting countries will notify the Secretariat by letter of their quarterly export availabilities by the same qualities.
- (iii) When the export availabilities in Europe are sufficient to satisfy the import requirements of all countries, the Allocations Subcommittee will recommend, on the basis of concluded trade agreements and declared fluid availabilities, allocations to satisfy requirements in full, due regard being paid to normal sources of supply, post-war changes, transport facilities and all other existing technical and economic conditions.
- (iv) When the European export availabilities are not sufficient to satisfy import requirements fully, the Allocations Subcommittee will recommend, on the basis of concluded trade agreements and declared fluid availabilities, allocations designed to provide countries with equitable satisfaction of their import requirements out of European availabilities, taking into account normal sources of supply, post-war changes and with due regard to transport facilities and all other existing technical and economic conditions.
- (v) Suggested allocations of metallurgical coke and foundry coke will take into account the recommendations of the Steel Committee, and therefore will be excluded from the general treatment described above.
- (vi) After allocations of European export availabilities have been recommended in this way, the deficits will represent the apparent European demand upon extra-European sources of supply.
- (vii) All European countries shall be encouraged to exert every effort to rationalise policies and practices influencing the consumption and distribution of coal to the end that the whole of the European availability will be absorbed. Remaining deficits will, as far as possible, be made up by the importation of coal from extra-European sources of supply.
- (viii) If importing countries cannot purchase their allocated quantities they will notify the Coal Committee of the tonnages they have been unable to obtain. European exporting countries will notify the Coal Committee of the tonnages they have been unable to dispose of. The Coal Committee will then make recommendations to facilitate the disposal of unsold quantities to countries whose requirements are unfulfilled.

- (ix) In cases where the extra-European sources cannot fully satisfy the remaining deficits, importing countries will take up only their proportionate share of the available supplies.

3. That no further bilateral agreements will be concluded for the supply of coal under Pool B, provisionally established according to ECO/APC/133. Bilateral agreements already concluded on that basis will be gradually terminated, account being taken of provisions contained in those bilateral agreements.

Recommends :

- 1. That in view of the facilities for the distribution of European coal provided for above, exporting and importing countries alike should do all in their power to assist the Coal Committee to attain as speedily as possible full European self-sufficiency in regard to coal.¹

It has not been considered necessary to comment at length on the above text, which sets the Coal Committee of the E.C.E. a definite object and a programme to carry out. However, some additional explanation will help to show its full value. Among those countries which unanimously adopted this resolution were the following European countries : Austria, Belgium, Czechoslovakia, Denmark, France, Greece, Italy, Luxembourg, Netherlands, Norway, Poland, Portugal, Sweden, Switzerland, the United Kingdom. The United States also adopted the resolution. Finally, it is of the greatest importance that, apart from Germany, all the coal-producing countries at the present time should have agreed that Europe must strive to become self-sufficient, as it was in the past. The representative of the United States informed the Committee most explicitly that his country did not regard Europe as a natural market for American coal, and all countries sincerely admitted that American coal had come to Europe only in response to an urgent appeal to that country to help Europe to rebuild its ruins. It can, moreover, be observed from the figures published in the foregoing pages that the withdrawal of American coal from the European market took place simultaneously with the increase of supplies from German, British and Polish sources.

By the terms of this agreement, European exporting and importing countries alike are given safeguards, though these differ in character. The former group are assured that they will not one day have to fight American competition, which assurance will enable them to develop their coal production to the full without fear on that score. The importing countries, on the other hand, gain the desired protection against any inclination to establish a kind of coal autarchy in Europe, which, in the present position

¹ Doc. E/ECE/Coal/16. Rev. 2, 31 August 1948.

of European sources of supply towards one another, would certainly in the long run bring them the necessary quotas of fuel, but would force these supplies upon them without regard to their specific needs, and, economically speaking, on extremely harsh terms. This protection is afforded partly by means of a new procedure for the allocation by the Coal Committee of the European coal available, a procedure which, in the future, will be based on import needs in terms of quality and no longer in terms of total quantity; and partly by the assurance that, in its recommendation for the allocation of European coal, the Coal Committee will take into account all the technical and economic factors of the present time, *i.e.*, *inter alia*, the possibilities of payment for the purchases effected.

This, then, is the programme of the Coal Committee of the E.C.E., established by the countries concerned in a most perfect and laudable spirit of co-operation. Thus, at a time when the Coal Committee is about to put it into effect, the Coal Mines Committee of the International Labour Organisation might with advantage concentrate for a moment on two aspects of the present *de facto* situation, namely, the different qualities of coal and the difficulties in regard to payment.

In December 1948, the Coal Committee drew up a plan for the allocation of coal for the first quarter of 1949, covering seventeen

TABLE XVII. EUROPEAN EXPORT AVAILABILITIES AND IMPORT DEFICITS OF COAL BY QUALITIES FOR SEVENTEEN EUROPEAN COUNTRIES FOR THE FIRST QUARTER OF 1949 ¹

(Thousands of metric tons)

Quality	European export availabilities	Deficit by comparison with stated import requirements
Steam coal	6,141.64	1,792.36
Gas coal	1,055.50	758.50
Coking fines	833.80	1,531.40
Metallurgical coke (+ 80 m/m).	2,512.00	110.00
Coke-oven coke (mainly nuts II)	740.50	172.00
Gas coke	285.00	22.00
Anthracite—graded	301.60	395.50
Anthracites—duffs and fines . .	110.00	329.00
Lignite briquettes	150.00	220.50
Patent fuel, hard coal.	153.00	—
Foundry coke	93.00	—
Total	12,375.84	5,331.26

¹ Distribution plan of the Coal Committee of the E.C.E.

European countries. Table XVII shows, by qualities of coal, what European coal is available for export and the deficits arising from the stated import needs of these seventeen countries.

Coal for export available in Europe as laid down for the first quarter of 1949, then, is estimated at 12,375,840 tons, of which Poland is to supply 4,363,500 tons ¹, Western Germany (bizone) 3,844,240 tons, the United Kingdom 2,210,000 tons, Belgium 1,119,000 tons, and Czechoslovakia, France, the Netherlands, the Saar, Italy and North Africa varying quantities, though on the whole relatively small. Poland thus stands out as the main source of supply, with Western Germany and the United Kingdom coming next. But what should be underlined is that, despite a total deficit of 5,331,000 tons, to be covered by the United States, there is available in the European market, for that period, an amount of 778,500 tons, which could not be allocated either because the qualities do not conform to the buyers' requirements, or because the users are experiencing difficulty in regard to payment.²

For export purposes, Poland has almost exclusively steam coal available, while the United Kingdom and Germany offer the importer a wider range of qualities. This is an aspect of the question which should not be lost sight of in connection with the ultimate restoration of the European market. It is true that on the basis of figures for the first quarter for 1949 there is a considerable deficit in regard to steam coal, in fact, it is 1,792,000 tons, and is the largest. This might lead to the belief that Polish surpluses for years to come still have a comfortable margin for supplying the European market. But there is one difficulty which makes this uncertain, namely the insufficient means of payment of would-be importers.

Since within the scope of the present report it would be impossible to examine in detail the question of payment in connection with international exchange, remarks on this subject must necessarily be confined to noting here those of the rules now in force which are directly related to the necessity for the Committee to know the factors liable to facilitate or hinder the development of a given sector of the world coal industry.

¹ Not including planned deliveries to Austria (400,000 tons), or to Eastern Germany (1,090,000 tons).

² The following remained unallocated for the first quarter of 1949: 400,000 tons of Polish smalls and fines, 100,000 tons of coke screenings; 100,000 tons of Italian gas coke; Italy has had to refuse 156,000 tons of Polish steam coal on grounds of quality, while Switzerland has refused 22,000 tons of steam coal for financial reasons.

In the matter of coal, international co-operation was established in 1945 through the European Coal Organisation set up in London.¹ It now continues through the Coal Committee of the United Nations Economic Commission for Europe, and most efficiently, as we have seen. When in the future its work is considered in retrospect, the extent of its success in a field where all attempts made during the inter-war period failed dismally will be a matter for astonishment. Nevertheless, for reasons which need not be discussed here, one of the fundamental factors of the general economic rehabilitation of Europe—not only in regard to mines—namely, the financial aspect, had devolved upon a body for international co-operation of which Poland is not a member. This is the Organisation for European Economic Co-operation, set up to put into effect the economic reconstruction plan for Europe (Marshall Plan) and of which nineteen European countries are members.²

Despite every effort to facilitate exchanges with Poland³, nevertheless, because the United Kingdom and Western Germany⁴—both of whom are European sources of coal supply—are members of the economic system so constituted, the European coal importers find it easier to meet their financial obligations by means of triangular or multilateral arrangements within this network of intra-European exchanges, than with Poland, which has remained aloof and whose own general import needs cannot necessarily be met from countries likely to be purchasers of its coal.

The inadequate supplies of currency from which coal importing countries in Europe are suffering has been overcome, in regard to American coal supplies, by the financial aid provided under the Marshall Plan to those countries which are members of O.E.E.C. As for British and German coal, the nineteen countries which are members of O.E.E.C. have concluded an agreement for intra-

¹ See *General Report, op. cit.*

² The member countries of O.E.E.C. are: Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Sweden, Switzerland, Turkey, United Kingdom and the American, British and French occupation zones in Germany.

³ The United States Department of Commerce on 25 June 1948 announced that it had authorised the shipment of railway equipment to a value of twelve million dollars to Poland to enable that country to send larger coal deliveries to countries which are members of O.E.E.C. This equipment will be financed by a forty million dollar loan, which was granted to Poland in 1947 by the United States Export-Import Bank, but which had been blocked since 1 March 1948, when exports to countries under Soviet influence were suspended in respect of the goods that "might contribute to their war potential" (*New York Times*).

⁴ To which the United States must of course be added, for while that country is not a member of O.E.E.C., it supplies it with the necessary aid to enable it to function.

European payments relating to all their reciprocal exchanges which will greatly facilitate equalisation operations. This agreement, which came into force on 1 October 1948, will first be valid for one year. By the terms of this agreement, each of the nineteen member countries has made available certain drawing rights to the other members. To a certain extent this constitutes an opening of credits, but although these are nominally attributed to a given country, nevertheless, as will be seen, in view of the triangular or multilateral agreements they are for the use of all the members. The gross total of the grants made by the nineteen countries amounts to \$810,400,000, but, as the countries are contributors and beneficiaries at the same time, the net total at the disposal of the system amounts to \$564,700,000, which is handled by the Bank of International Settlements.

Summarised very briefly, the machinery for these intra-European payments is as follows: distinction is made between first-category and second-category equalisation. When a given country, France for example, utilises the drawing rights granted to it by the United Kingdom for the import of the products of a third member, say Belgium, and if the latter is already commercially a debtor of the United Kingdom, then the transaction is considered as a first-category equalisation and is automatically settled by the Bank of International Settlements. But if France carries out the same transaction, not with a country which is commercially a debtor of the United Kingdom but with a country which is a creditor of the United Kingdom, then France must obtain the authorisation of the United Kingdom and of the third country before proceeding with the transaction, in which case the transaction is regarded as second-category equalisation. The distinction between the two types of operations may be easily understood, for in the former case France's purchases result in a reduction of Belgium's debit balance with the United Kingdom without harm to the latter, whereas in the latter case, the purchase made by France would increase the United Kingdom's debit balance with the third nation, which would be a poor reward to the United Kingdom¹ for granting drawing rights to one of the co-participants of O.E.E.C., since to the United Kingdom such rights would entail an aggravation of its own economic position.

There is no doubt that some of the difficulties encountered

¹ For the sake of clarity we have here mentioned countries by name, but the names of France, the United Kingdom and Belgium might have been replaced by any other countries which are members of O.E.E.C.

by coal-importing countries¹ which are members of O.E.E.C. in regard to their purchases from Britain and Germany will be considerably lessened. If, together with this improvement in the regulations governing payment for such purchases, British and German coal should become more abundant on the European market—and this appears reasonably likely—it may be assumed that in the near future they will again take an important place on this market, where the variety of their qualities makes them particularly sought-after, provided always that their prices remain within the limits of the financial possibilities of the importing countries once the aid now provided by the Marshall Plan is no longer forthcoming.

THE MODERNISATION EFFORT

The development of the modernisation of the mines has continued throughout the past two years. More material has become available, although there is still not sufficient to meet all the needs, and financial difficulties still prevent the coal industries of numerous countries from making fundamental changes in their working methods. Extensive programmes have been prepared, and a beginning has been made with some. Each of these is worthy of close study, but the present Report has had to confine itself to noting a number of facts which will enable the Committee, or at any rate so it is hoped, to form an idea of the progress accomplished and to ascertain the general trend of development in the coal mining industry throughout the world.

In Australia, the Joint Coal Board has made available a credit of ten million dollars for the purchase of mining equipment from the United States and the United Kingdom, mostly for the mechanisation of the New South Wales mines. It is hoped that this equipment will begin to arrive early in 1949. It includes mobile loading machines, mechanical coal cutters, shuttle trucks, conveyors, locomotives and cars, electric motors and transformers. For some years, mechanical loading has been developing; 27 per cent. of the total production in New South Wales has been loaded mechanically since 1947.

For Australia, it should further be pointed out that the working of the open-cast lignite reserves in the State of Victoria (27,000

¹ During the year 1948, France at one moment was compelled to stop its coal imports from Britain because it had no means of payment available. Exchanges with Belgium have suffered for the same reason. To varying degrees, countries other than France have met with similar difficulties.

million tons) also holds out great possibilities. High-power excavators which can reach up to a height of about 28 feet above the rails and down to about 22 feet below, have been put into operation.

In Belgium, a re-equipment fund has been opened to enable the coalfields to modernise their equipment. In certain coalfields, special hewing and clearing machines—devised in Belgium itself or imported from the United States or the United Kingdom—are in service. By way of a trial in certain mines the coal plough has been introduced, as well as different types of coal cutting machines, conveyors and cutting material suitable to the natural conditions in Belgian mines. General use is now made of locomotives; there were 90 in 1930, and this number had increased to 262 in 1946 and has increased still more since. In the Campine, all the haulage is done by locomotives. Most of the locomotives have Diesel engines; compressed-air locotracors are now disappearing, while in certain Campine mines trolley locomotives are being tried out. The unit power of the locomotives is increasing, and in the Campine there are fifteen locomotives of over 90 h.p.

In the province of Nova Scotia, in Canada, mechanisation is being developed in the mines where the long-wall system is in force as well as in those where room and pillar working is used.

The French coal mining industry is being reorganised and modernised on a large scale, and once this process is complete it is anticipated that from 1950 onwards the industry will produce sixty-five millions tons of coal annually. In the past two years, underground electrification has been speeded up, especially in the Lorraine coalfield, as well as the mechanisation of underground transport. The use of mechanical coal cutters and loaders has been increased, and as far as possible metal pit props have been put into use. Work has begun on the sinking of new shafts, as planned, while at the same time the winding gear in a number of existing ones has been improved, and the modernisation of factories for the mechanical preparation of coal has likewise begun.

French builders are making a great contribution to this reorganisation, but nevertheless it was necessary to appeal to the United States and the United Kingdom for material, while some had also to be purchased in Belgium, Switzerland and some other countries, to eke out the temporary shortage of French materials. In the course of 1947, the French mines received, mostly from the United States and the United Kingdom, the following equipment: forty-two coal cutting machines, fifteen loading machines, 111

conveyors with scrapers, seven duckbills, twenty-five sets of equipments for high-power perforators (jumbo), three sets of electric perforators, thirty hoisting engines, sixty welding engines, eight compressors, and some thousands of head-lamps with the necessary maintenance equipment.

An effort is being made gradually to replace the low capacity cars, which seem definitely condemned, by cars with a capacity of three to five tons. The public authorities have made the regulations governing the use of Diesel locomotives more flexible¹; such locomotives are found more and more frequently in transport underground, and they are becoming increasingly powerful.

Present production capacity is inadequate to meet the demands of increased production as planned. Therefore the French mines are in turn beginning to favour the installation of skips. A certain number are now provided for, and their average capacity will be 12 cubic metres.

Finally, in the course of 1947 the shaftsinking which had been planned was carried out in four pits out of seven and was begun in ten pits out of fourteen, while preparatory work was undertaken in three others.

To carry out this plan, considerable sums have already been invested, and in the programme submitted by the French Government to the Organisation for European Economic Co-operation provision is made, for the period 1949-1953, for investments totalling some 260,000 million francs, irrespective of investments for maintenance and current renewals.

In India, the modernisation problem has somewhat special characteristics. The Indian Coalfields Committee considered the possibility of mechanising the mines, but reached the conclusion that the existing mines did not lend themselves to the introduction on any considerable scale of modern mechanical equipment, and that only the new mines, or those awaiting development, could be usefully so equipped.

In the Netherlands, the mines still have the advantage of having been fairly recently developed. By comparison with the coalfields elsewhere, their installation and equipment are reasonably up-to-date from a technical point of view. No far-reaching changes are, therefore, needed. Nevertheless, the essential replacements of equipment are made with an eye to progress in mining technique.

¹ General derogation, for a limited period of time, of Article 101 of the General Regulations on Coal Mines (Diesel locomotives), dated 15 June 1946.

Dutch engineers have made study trips to the United States, and the coalfields are now experimenting with various types of underground machinery.

In Poland, a constant effort is being made to improve underground transport and winding by skips. The Central Coal Board has set up a standardisation committee which is engaged on the study of two types of cars (two and five tons) and of three sizes of railway gauge (600, 785 and 1,050 mm.) to replace the forty types of cars now in existence, the capacity of which varies between 450 and 3,500 kg., and the twenty-one sizes of railway gauge which are found in the Polish coalfields.

Twenty-two coalfields now functioning are equipped with skips, while fifty-six others possess cages. The skips are semi-automatic; ten have anti-break devices, and all but thirteen of them, which are used only for coal, can also be used for carrying persons. Here again attempts are being made to standardise capacity, and to reduce the skips to three types: 5, 7.5 and 10 tons, in order to establish a simple connection between the capacity of the standard cars and that of the skips.

Out of the 70,000 million zlotys which the Polish State proposed to devote to the re-equipment of the country in 1948, the Polish coal industry was to receive 13,300 million for the renewal and development of its existing installation.

For Poland, the modernisation of the coal industry means not only the re-equipment of the mines, but also that of the railway system and port installations, for otherwise the coal—intended very largely for export—would accumulate unnecessarily at the pit-head. Very great progress has been made in this field. With regard to railways, importers of Polish coal now no longer have to supply trucks for the entire tonnage they import, as was the case in 1945 and 1946. This is an undeniable indication of a certain improvement in rolling stock. One of the improvements planned is the construction of a new railway system to connect the Centre area with those of the South-East and the North-East, which will greatly facilitate the work of the coalfields in those areas (Dra-boyskie, Union and Opole Mines). This system will also serve to transport sand from the banks of the Przemsza and the Klodnicki Canal to the coalfields, to be used for preventing landslides.

Transport by water has certainly relieved pressure on the railways. In March 1948, for the first time since the end of the war, more coal was transported by sea than by rail. This was the result of repairs and enlargements carried out in Polish ports. The

Government planned to give its three great Baltic ports—Gdansk (Dantzig), Gdynia and Szczecin (Stettin)—an annual loading capacity of twenty million tons. This capacity in 1948 reached about 18,500,000 tons, 15,500,000 of which applied to Gdansk and Gdynia.¹ Although these two ports will be further developed, in the future the Government will concentrate mostly on Szczecin.

A large proportion of Poland's mechanical equipment, such as cranes and belt-conveyors, has been made in the country, but cranes have been ordered from Italy and Czechoslovakia and belt-conveyors from the United States and the United Kingdom.

The utilisation of the full capacity of the port of Szczecin depends to a large extent on the development of shipping on the Oder. There is an extensive programme of work to be carried out here, such as making certain stretches of the river navigable, rebuilding destroyed bridges and building-up a river fleet adequate to meet the demand.

In the United Kingdom, the National Coal Board, in taking over the coal industry, set itself the task of reorganising and modernising the coalfields. It was working on two types of plan—short-term and long-term. During 1947, 550 short-term plans were put into effect and about 340 were completed. In every case, more mechanical equipment had to be brought to the coal face and haulage improved by the substitution of conveyors and locomotives for the old system of hauling by circular cable. At the coal face, most of the newly installed cutting machines are still of the standard type, with conveyors requiring loading by shovel. Nevertheless, a number of mechanical loaders and combined cutting and loading machines have been put into operation. Thirty Meco-Moore machines of British manufacture, for combined cutting and loading, were in use underground by the end of 1947, but since it appeared that their effectiveness was confined entirely to thick seams, in 1948 a new type was put into operation—the Meco-Moore A.B., specially built for work on thin seams.

By the end of 1947 there were 10,028 mechanical cutters in the British mines, as against 9,691 in 1946 and 8,292 in 1945. They are mostly operated by electricity—5,926 in 1945, 7,087 in 1946 and 7,479 in 1947. The others are operated by compressed air. In 1945, the proportion of mechanically-hewed coal amounted to 72 per cent. of the total production in underground mines; for 1947 the proportion was 75 per cent.

¹ In 1938, the joint loading capacity of Gdansk and Gdynia was sixteen million tons. In 1945, following war destructions, it dropped to 700,000 tons.

During 1947, 1,500 new conveyors were installed, which brought the total number to 14,245 as against 11,030 in 1945, and 32 additional locomotives were put into operation underground.

With regard to underground transport, technical progress relating to efficiency and safety led the British public authorities to propose that the regulations governing the use of Diesel engines underground should be made more elastic¹, as had already been done by the French. The National Coal Board has furthermore placed an order for 152 Diesel locomotives, which number is made up of 66 ten-ton engines of 65 h.p., with a speed of 9 miles per hour; 48 ten-ton engines of 70 h.p., with a speed of 15 m.p.h.; and 38 fifteen-ton engines of 100 h.p., with a speed of 15 m.p.h. These last are the most powerful Diesel engines ever utilised underground; they have a traction power of 400 tons.

In the four-year plan which it has submitted to the O.E.E.C. the aim of the British Government for the period 1949-1953 is to produce sufficient coal and coke to meet all requirements at home and to ensure that Europe's fuel needs are satisfied from European—largely British—sources, since the Government expects that by 1953 British exports will amount to 40,700,000 tons. This programme is based on the view that during the year July 1949-July 1950 the country's general output can be improved only by an improvement of individual output, for it is probable that there will be a decrease in the total labour force, and that this increased productivity can be achieved only by increased investments and mechanisation. Thus, for 1948-1949 the Government provided for investments to a figure of £25,000,000 within the framework of the Marshall Plan, for the modernisation of the coal industry, one-fifth of these investments to be devoted to replacing the present installations by up-to-date equipment, one-fifth to preparation plants and washeries, one-fifth to the sinking of new shafts and the rest to increasing production and reducing cost prices by underground mechanisation, the reorganisation of underground transport and the extension of drift mining. For 1949-1950, also within the framework of the Marshall Plan, provision has been made for investments of the order of £34,000,000 for the same purposes. The National Coal Board anticipates that by December 1952, some £150,000,000 will have been invested for developments and replacements.

In Turkey, the coal mining industry is regulated by a ten-

¹ U.K., MINISTRY OF FUEL AND POWER: Document No. 165, 1 Dec. 1948.

year modernisation plan, at the end of which time production should be double the present figure. The expenditure involved in this plan is estimated at \$125,000,000. No details are as yet available as to the new material which is to be introduced into the mines, but it is known that three new shafts will be sunk, at Kozlu, Karadon and Asma respectively, and that factories for the mechanical preparation of coal will be set up round these shafts. It is also known that the plan provides for the building of a power station at Catalagzi, to supply current for the Songuedak coalfield.

In the Union of South Africa, new shafts are now being sunk to meet the increasing demands of the home market, particularly that for metallurgical coking coal. Thus, for example, the Amalgamated Collieries Group announces that it has undertaken the sinking of a new shaft to supply coking coal for the South African Iron and Steel Industrial Corporation (I.S.C.O.R.), which is one of the largest steel works. This mine will probably come into operation early in 1950. Attention is also devoted to the replacement of mines which will be exhausted within the next five years. To replace the Springfield Mine, a shaft will be sunk near the Grootvlei railway station, 22 miles south of Balfour. It is expected that this new mine will yield some 2,750,000 short tons of coal annually. To replace the Schoon-Gezicht Mine, which is being closed, a new shaft will be opened in the Witbank coalfield.

In the United States, mechanisation of cutting has long reached such a point that any discussion could only bear on the purely technical modifications which must constantly be made to the types of machines in operation; but this does not of course come within the scope of the present Report. On the other hand, it is easier and more interesting to follow the development of underground transport, which considerably increases the efficiency of American mines.

There are still various different methods of underground transport. It cannot be said that any single one has succeeded in eliminating the others; it would rather appear that all the methods are constantly being improved and renewed by the introduction of more powerful, faster and increasingly resistant material.

In 1947, the number of locomotives of all types in use was estimated¹ at sixteen thousand; these were mostly electrical. The manufacturers mostly concentrate on types of fifteen tons and over; new locomotives of less than six tons are scarce. It is

¹ *Mechanisation*, Aug. 1948.

considered that 40 to 50 per cent. of the locomotives now being built are of ten tons or more. Power lines are being extended, and the use of the trolley reduces the number of storage battery locomotives. The use of tandem locomotives is also being extended; it is pointed out that the most powerful tandem now in use is composed of two trolley locomotives of twenty-five tons each, equipped with six 120 h.p. engines. The brakes are compressed-air or hydraulic.

The American mines possess at least 500,000 cars, and perhaps many more. Progress does not consist in the number, but rather in the capacity. The cars now being used are of twenty-five to thirty tons. There are a large number of eight, ten and twenty-ton cars, and the average capacity varies between 3.5 and five tons. The new cars are made of high-resistance alloy steel, with a minimum weight to the cubic yard of capacity and corrosion-resisting. They are generally mounted on eight cast-steel wheels, and on anti-friction bearings with automatic greasing. They have compartments and drop-bottoms, and automatic coupling.

The use of shuttle cars has also been developed. Between 1940 and 1947, manufacturers have supplied 2,275 of different types, either with hydraulic control or with storage batteries or trolley. In areas where this means of transport is used, and according to geological conditions, the production per man-shift varies between ten and forty tons. Furthermore, mobile loaders, of the Duckbill type, are being increasingly used wherever conditions allow. As for belt conveyors, they are being used more and more extensively, especially as new improvements have been made in the manufacture of the conveyor belts. Steel threads have been substituted for cotton threads in the structure of the belt. The advantages of this change are considerable; higher resistance to traction permits a reduction of the rotation speed, and this ensures more regular loading; the belt has a longer life and so have the rollers; there is a possibility of extending its range, which reduces the number of intermediate loading points and consequently the risk of the coal's crumbling.

Finally, considerable progress has been made in regard to open-cast mining, the output from which has been far from negligible; in 1947 it amounted to 122,400,000 metric tons for bituminous coal and 14,500,000 for anthracite. Here may be found the strongest and most powerful engines that the American engineering industry can produce. Only one of these will be described, which outstrips all its predecessors in power and which was put

into operation during 1948 at the Chieftain Mine of the Maumee Collieries Company. It is a walking drag line made by the Bucyrus Erie Company. The drag rests on a circular base 50 feet in diameter and weighs 2,470,000 lb. It has a boom 215 feet long, which is fixed at an angle of 42 degrees. It is self-contained and moves in seven-foot steps by means of two parallel shoes 9 feet wide and 54 feet long, moved by means of two cams which, when the crane is in working position, are lifted off the ground. The bucket can dig 120 feet below ground level and dump about 60 feet above. When fully loaded the bucket weighs 130,000 lb. and the load can be dumped 360 feet from the digging point.

It may be easily understood that with such equipment open-cast bituminous coal mining during 1947 should have registered an increase of 345 per cent. over the average production level of the years 1935-1939.

* * *

From the above survey it may be deduced that in all the coal-producing countries engineers and technicians at all levels have shown indefatigable energy and ingenuity in discovering new mechanical methods or else in adapting material which had given good results elsewhere for use in their own countries. It would seem that the coal mining industry has rarely known a period of such intensive technical curiosity as that which set in after the end of hostilities and is still continuing. It may be accounted for partly by the need for more coal, and partly by the fact that, since most national industries are making important investments of new capital, each one intends to derive the maximum benefit from the latest technical improvements in mining in connection with its new installations. It must be admitted that the American mines are to a large extent responsible for this general trend, for they act as an immense testing ground to the world coal mining industry. Even when certain countries cannot possibly apply American methods or use American equipment, they nevertheless remain an example of what should be done as well as of what should not be done. They constitute an example that is in a perpetual state of flux, and which benefits to an astounding degree by the inventive and enterprising spirit of American manufacturers of mining equipment, whose association with the owners appears to be conditioned by three principles—to hew faster, to load faster and to mine coal at a minimum price and always under conditions of maximum safety.

There is no doubt that, if in a number of countries the mining engineers were able to stop all work in the coalfields for a certain period, they could renew a large proportion of their installations. But they do not possess that power, and it will always be denied them, in view of the demands of present-day life. They must therefore draw on all their personal resourcefulness, and appeal to the fundamental qualities and the genius of their respective countries—which enables those countries to continue to produce coal with the means at their disposal—while at the same time bringing technical progress to section after section of the mines.

This advance by stages upon which mining engineers and technicians are now engaged is itself held up by a series of obstacles, chief among which is and has been the impossibility for American manufacturers, first and foremost, but also for those in Britain, Germany, France, Switzerland and Belgium, to deal simultaneously and immediately with all the requests for current equipment, or equipment specially adapted to the peculiar circumstances of those in need of it. In a large number of cases it has been necessary to wait and, while doing so, to fall back on working methods other than those which it was earnestly desired to adopt. In the past two years, the situation has improved. The manufacturers of mining equipment can now meet the requirements—if not completely, at any rate to a considerable extent. The main obstacle appears to have shifted and at the moment it appears to be a lack of funds much more than a lack of sources of supply for equipment.

To illustrate to what extent more equipment has become available since 1945, the United Kingdom may be taken as an example; in that country, the manufacturers had to provide, by order of priority and on a large scale, for their country's own requirements. In 1945, the monthly average of production was as follows: 54 coal cutting machines (including nine for export); eight mechanical loaders (including one for export)¹; 132 conveyors (including eight for export). At that time no conveyor belt replacements were made, no locomotives, no cars. By July 1948, the position was somewhat different. Production figures for that month were as follows: 127 coal cutting machines (including 39 for export), 14 mechanical loaders¹ (including two for export), 313 conveyors (including 49 for export), 935,000 feet of conveyor

¹ The Meco-Moore A.B. cutter-loader is included among these.

belt, eight locomotives, and cars with a total capacity of 4,520 long tons. Exports of mining equipment of all kinds from the United Kingdom have risen steadily and for the first seven months of 1948 reached a figure of 11,592 long tons (as against 7,873 long tons for the corresponding period of 1947), representing 78 per cent. of the average volume of exports for seven months of 1938.

In Poland, the coal mining industry has set up a Union of Manufacturers of Mining Machinery and Tools. During 1948, this organisation's output was expected to reach the figure of 24,330 tons of equipment, including, *inter alia*, 8,000 cars, 600 pumps, 210 cutting machines, 2,400 rock-drills and 2,200 hammer-hewers.

The output of manufacturers in Germany, France, Belgium, the Netherlands, Czechoslovakia, Austria, Sweden, Switzerland, Italy and Luxembourg have also gone to swell the quantity of equipment available. As in the case of the United Kingdom, a part of this equipment is absorbed by the national coalfields.

A margin of surplus equipment nevertheless remains available for the international market; and this surplus, if rationally utilised, can contribute to the recovery or modernisation of some of the national coal industries.

Leaving aside the difficulties arising from inadequate means of payment¹, exchanges concerned with equipment still feel the impact of the overthrow of existing commercial circuits as a result of the war and its after-effects. Take, for example, the case of a French mining firm which before the war was accustomed to order definite types of machinery from a firm of British manufacturers. Immediately relations were re-established between the two countries, *i.e.*, early in 1945, the owner approached the manufacturers for this equipment, of which he stood in urgent need. Since at that moment the manufacturer could not meet his request, at any rate within a foreseeable time and under definite conditions, the owner applied to another country, *i.e.*, to the United States, which at that time was the only country which could give the owner a definite affirmative reply. He certainly had to wait a long time for the equipment, and the price was heavy, but the owner accepted these drawbacks because he had a positive reply as to delivery date and the price he would have to pay. At the present

¹ In this connection, what was stated in the preceding Section concerning payment for coal imports also holds good in regard to payment for equipment.

time, the British manufacturer or any one of his colleagues is in a position to meet any request such as the one made in 1945 by the French owner or any one of his colleagues, but the connection is broken. As between one country to another, neither all the resources of the manufacturers nor all the needs of the owners, are as yet known. This reasoning may apply equally to Belgian, Dutch, Polish and Czech owners, as well as to manufacturers of all nationalities other than British.

To improve matters, the Coal Committee of the Economic Commission for Europe has taken a step from which the persons concerned are entitled to expect positive results. The Committee has drawn up a table showing the import requirements of all its members in regard to mining equipment for the years 1948-1949.¹ These requirements, classified according to types of equipment, are expressed in terms of units or of volume, or of the two combined, with the corresponding value in dollars. The members indicate the various countries from which they hope to receive the desired equipment.

Once this table of import requirements had been drawn up, the members were requested to state first, what articles they had been unable to order, and secondly, those delivery of which had been delayed or postponed. Countries exporting equipment, on the other hand, communicated estimates of the quantities of equipment they expected to have available for export, classified in the same way as the import requirements. It is hoped that in this way, with comprehensive knowledge of requirements and available supplies, natural and rational adjustments of the commercial circuits for mining equipment may be achieved.

There are two advantages inherent in this action by the Coal Committee of the E.C.E.; it draws the attention of manufacturers to the types of equipment which are most needed on the market; and it informs owners of the fact that equipment may be available in unsuspected quarters, with which they could improve the output of their mines. The latter advantage is of some considerable importance when it is realised that the manufacturers have exercised their utmost ingenuity, and are still continuing to do so, with unflagging persistence in order to offer the mine owners a more and more extensive range of machinery and equipment capable of suiting the different types of working conditions.

¹ The Coal Commission expects to repeat the operation for the years 1950, 1951 and 1952.

II. The Coal Mining Industry in Germany

The importance of the German coal industry, and the place which it occupied on the international market before the war, are well known. Immediately after the cessation of hostilities it became apparent that German coal constituted a vital factor in the reconstruction of Europe; hence the efforts made by the Allies to restore the German coalfields to working order. It was felt that the time had come to draw a picture of the situation, at any rate in outline. Instead of doing this within the framework of the general analysis made above, which would have disturbed the balance and scope of that analysis, it was felt that a special section might with advantage be devoted to the German coal industry in the present Chapter, which constitutes a balance-sheet and deals with the prospects of the coal industry throughout the world. For tomorrow, just as yesterday, German coal will have a part to play in world economy.

DEVELOPMENT OF THE COAL POLICY OF THE OCCUPYING POWERS

The years 1947 and 1948 saw a rise in production, slow but progressive, in the three Western occupation zones. These two years, however, were mainly notable for a series of arrangements and agreements between the occupying Powers, dealing with such matters as the organisation, administration and supervision of the German coalfields, and with the distribution of the coal won in them.

As a result of these arrangements, the situation has changed considerably as compared with the situation at the end of 1946. It would therefore be well for the Committee to review the successive phases of the coal policy pursued by the occupying Powers. These phases were not always very clear-cut; it would have been amazing indeed if they had been, because all the negotiations on the allocation of coal had a political background, and, in addition to the question of coal, a number of exceedingly complex problems never failed to confront the partners in question, such as the rehabilitation of German industry before that of the countries which had been victims of German aggression, safeguards for the future, etc. It is therefore not surprising that the successive, and not always concordant, ideas of the Allies on the subject of safeguards to be established, the future of the German economy, or the nature and extent of the reparations to be demanded of

Germany, should have directly affected negotiations on questions such as the control and administration of the Ruhr Mines, the integration of the Saar coalfield in the French economy, the determination of the quantities of German coal to be exported, or its distribution among countries suffering from a shortage of that fuel, which is such a valuable factor in their recovery.

First Difficulties between the Allies

At the time of the Committee's Second Session, in April 1947, difficulties had already arisen among the Allies in connection with German coal. At the end of July 1946, the Council of Four¹ decided to appoint a Committee of Experts, consisting of representatives of the four occupying Powers, to consider the German coal situation, from the production as well as the distribution point of view. This Committee was to submit its conclusions to the Allied Control Council at Berlin. But when in September 1946 the Committee of Experts submitted not one report, but several, owing to the fundamental divergency of views which had become apparent in regard to the problem with which it had to deal, considered as a whole, the Allied Control Council was forced to refrain from taking a decision the nature of which exceeded its powers. It therefore referred the matter back to the Council of Four, and at this level it was merged with the large questions of general policy that awaited discussion by the Four. During its session at New York, from 3 November to 12 December 1946, the Council of Four did not have time to consider the conclusions of the Committee of Experts, but placed the question, together with a French proposal for the internationalisation of the Ruhr, on the agenda of its next session, which was to be held at Moscow.

The fact that the occupying Powers failed to reach an agreement on coal was due to the fact that each had its own particular ideas regarding the organisation of Germany. By virtue of the earliest agreements concluded between the four Powers, all solid fuel in Germany was to be pooled and then allocated by the Allied Control Council at Berlin between military, civilian and export requirements. But while this allocation was made by a body composed of representatives of the four Powers, and for the benefit of all the four zones, the Pool was supplied only from the output of the British, French and American zones.

¹ Composed of the Ministers for Foreign Affairs of France, U.S.S.R., the United Kingdom and the United States.

The system worked in this way until the middle of 1946. When invited also to contribute the output of their zone to the Pool, the Soviet authorities made such action conditional on the drawing-up of a plan for coal production. In other words, the Soviet authorities showed themselves willing to contribute the output of their zone to the Pool, provided that they were associated with production in the coalfields in the other three zones, the most important of which, the Ruhr, is in the British zone.

The British were not averse to the planning of production, and their previous proposal for economic fusion—supported by the United States—had been directed towards this very object. Nevertheless, while they were willing, together with the other three occupying Powers, to organise the planning of production, they considered that this planning should not be confined to coal only, but should extend to all the industries for the whole of Germany, in conformity with the principles enunciated in the Potsdam Agreement, in order to give Germany a balanced economy.

Mr. Ernest Bevin further defined the British attitude when the question arose of placing the Ruhr under four-power control:

I regard this claim as untenable so long as there is not complete and genuine economic unity in Germany. When such a unity has been achieved, we are willing that the production and allocation of the resources of the Ruhr, in common with those of all Germany, should be dealt with under four-power control, under the authority of the Control Council.¹

The Moscow Agreement

When the Four met at Moscow from 10 March to 24 April 1947, they were no more able to achieve agreement on the economic organisation of Germany than they had been on previous occasions. Since this is not an appropriate place for a detailed consideration of the theories put forward on this general problem, mention will be made only of the Conference's decision on coal, referred to as the Moscow Agreement. It is a tripartite and not a quadripartite agreement. It was negotiated by the representatives of the United States, Great Britain and France, and signed by them on 19 April. It was valid for six months from 1 July 1947.

For the first time there was a relationship between the quantities of solid fuel to be exported and the joint production of the

¹ Debate on the Foreign Policy of the Government. House of Commons, 15 and 16 May 1947.

Ruhr, Aachen and Saar coalfields. The purpose of the Moscow Agreement, in fact, was to determine what proportion of the total production of saleable coal in the three zones should be set aside for export, in accordance with a sliding scale of percentages varying according to the daily output of the above-mentioned coalfields. The starting-point of the scale fixes the export figure at 21 per cent. of the net production of saleable coal when in the aforesaid coalfields the daily production reaches 280,000 tons. According to the rate of progress indicated in table XVIII, the percentage rises to 25 per cent. when production has reached 370,000 tons per day.

TABLE XVIII. WESTERN GERMANY : SCALE OF EXPORTS OF SOLID FUEL ESTABLISHED BY THE MOSCOW AGREEMENT (APRIL 1947)

(Thousands of metric tons)

Daily net production of the Ruhr, Aachen and the Saar	Percentage of available saleable production reserved for export	Estimate of saleable production available (monthly averages) ¹	
		Export tonnage	Tonnage for home consumption
280	21.0	1,187	4,465
290	21.5	1,262	4,608
300	21.5	1,309	4,778
310	22.0	1,387	4,917
320	22.5	1,467	5,055
330	22.5	1,516	5,223
340	23.0	1,602	5,365
350	23.5	1,691	5,505
360	24.0	1,782	5,642
370	25.0	1,913	5,739

¹ For months of twenty-five working days.

The Moscow Agreement brought about two important changes in the situation as it then was. The first is a proportionality between export and production to replace the rule previously in force whereby German coal was allocated according to priority of requirements. The second change is the explicit admission of a possible economic integration of the Saar with France.

The order of priority of requirements was always difficult to establish, for the minimum requirements of the Germans were liable to be variously assessed by the different partners, and in this connection it is known that there was a growing anxiety, often expressed, on the part of war-devastated countries or countries plundered of their economic substance by the German occupation, lest Germany should recover economically while they themselves

were in the throes of insurmountable difficulties occasioned by lack of coal. One of these countries was France—itself an occupying Power—which was specially anxious that any increase in production of the German coalfields should be offset by an increase of exports to countries suffering from a shortage of solid fuel. France therefore never lost an opportunity of insisting, in discussions with its co-partners of the Western zones, that, in the absence of a general agreement on the economic unity of Germany, France, as well as other importing countries should be given certain guarantees with regard to Ruhr coal. In drawing up the sliding scale of percentages, the United States, United Kingdom and French experts took due note, on the one hand, of the reconstruction needs of the liberated European countries which had always depended upon imports of German coal, and, on the other hand, of the essential requirements, industrial and general, of the German economy. From this point of view, the Moscow Agreement seems to have somewhat reassured the countries concerned.

France received an additional assurance by the terms of the Moscow Agreement, namely, the implicit recognition by the United States and the United Kingdom of the economic integration of the Saar with France. For the Moscow Agreement included a clause providing that, when this integration became effective, the coal availabilities and requirements of France and the Saar should be submitted to the European Coal Organisation as one unit, and that the Organisation, in its calculations for the allocation of coal, should take due note of the new position.

In practice, the Moscow Agreement did not come into force until October 1947, for, contrary to all expectations, the daily output until then did not reach the anticipated figure of 280,000 tons which would allow the minimum export percentage of 21 per cent.

Adjustment of the Moscow Scale

The changes in the Saar régime which occurred a little later, called for an adjustment of the Moscow scale, for its validity had in the meantime been extended to cover the whole of 1948.

Since the economic integration of the Saar with France, which move was decided upon in November 1947 and definitively confirmed on 1 April 1948, France has no longer to turn over the Saar coal output to the Pool, since the total output of its zone remains at its disposal. The daily output by which the export percentages were fixed was therefore reduced to the sum total of the Ruhr and

Aachen production, and export quotas came entirely from the coal availabilities in the British and American zones.

On 20 February 1948, the three occupying Powers concluded an agreement based upon these changes. By the terms of this agreement, on 1 April 1948 a new sliding scale was devised in place of the Moscow one of 19 April 1947. The main characteristics of the new scale are shown in table XIX.

TABLE XIX. WESTERN GERMANY : REVISED SCALE OF EXPORTS OF SOLID FUEL AFTER THE ECONOMIC INTEGRATION OF THE SAAR WITH FRANCE

(Thousands of metric tons)

Average daily net production of the Ruhr and Aachen	Percentage of available saleable production reserved for export	Estimate of saleable availabilities (annually)	Exports corresponding to $\frac{c \times b}{100}$ (annually)
(a)	(b)	(c)	(d)
250	14.51	64,990	9,428
255	15.17	66,241	10,049
260	15.29	67,492	10,321
265	15.39	68,955	10,613
270	15.49	70,417	10,907
275	16.22	71,882	11,659
280	16.41	73,346	12,034
285	17.08	74,795	12,775
290	17.21	76,244	13,122
295	17.34	77,795	13,492
300	17.47	79,346	13,864
305	18.12	80,825	14,650
310	18.25	82,304	15,016
315	18.90	83,835	15,842
320	19.01	85,366	16,232
325	19.66	86,925	17,086
330	20.81	88,484	18,417

Source : Economic Commission for Europe (Coal Division). (Based on data in Document ASC/13/Add. 1.)

In column (a), which gives the daily output, it will be observed that the gradation advances 5,000 tons at a time, thus giving the revised scale of corresponding percentages in column (b) a greater sensitiveness than did the Moscow scale. In columns (c) and (d), hard coal, coke, bituminous and sub-bituminous coal are all included, as well as lignite and briquettes in equivalent of hard coal. Finally, the estimates in column (c) cover the solid fuel production of the entire bizone; they are naturally subject to variation, since they are based on production forecasts, on an

average weekly delivery of 300,000 tons of hard coal to the coking plants and on 300 working days annually.

Until 1 April 1949, there should be added to the export figures in column (d), expressed in terms of the factors in columns (a) and (b), certain amounts from the Saar. The United States, British and French Governments wished to arrange for a transition period between the two systems—before and after the economic integration of the Saar with France—lest the change should affect the interests of other countries which are buyers of German coal. The Saar has accordingly undertaken to supply to Western Germany the following amounts: during the second quarter of 1948, 825,250 tons; during the third quarter of 1948, 577,750 tons; during the fourth quarter of 1948, 330,250 tons; during the first quarter of 1949, 82,500 tons; during the second quarter of 1949, nil.

These deliveries of Saar coal will enable the bizone to release equivalent amounts for export to other countries, and these amounts will thus be added to the export figures in column (d) of the above table.

The question of exports involved another aspect which, in December 1947, was also settled by agreement between the three Governments which were signatories to the Moscow Agreement—that of the different qualities of coal, and particularly of coke. As a result of criticisms expressed by France in August, when the production level of steel was under review, and following the promise of the United States and the United Kingdom to take into account the position of France, the bizonal (Anglo-American) authorities undertook to export coke at the request of importing countries on the following terms: for a daily hard coal production of 300,000 tons in the Ruhr-Aachen coalfield, coke exports will reach 7,600,000 tons a year; when production reaches 330,000 tons daily, coke exports will be increased to 8,400,000 tons. For a hard coal production exceeding 330,000 tons daily, it is considered that coke exports can be so increased as to satisfy all the requirements submitted.

Fusion of the Anglo-American Zones

On 2 December 1946 an agreement between the United States and the United Kingdom was signed at Washington for the economic fusion of the American and British zones. This agreement came into force on 1 January 1947, but no joint administrative bodies were established until June, following the signature at

Berlin, between the same parties, of a second agreement dated 29 May 1947. Finally, on 17 December 1947, a further financial agreement was concluded between the two parties, at Washington, whereby the United Kingdom's share in the expenditure of the bizone was reduced, while at the same time the measure of American control was increased.

According to explanations given by Mr. Ernest Bevin in the House of Commons¹, the United States and the United Kingdom decided to merge their zones because the Potsdam Agreement had failed to function as intended, or at least as anticipated. The economic fusion of the four zones proved to be an impossibility. The U.S.S.R. attached to it the twofold condition of a simultaneous coming into force of political unity and a centralised constitutional régime for Germany, and the internationalisation of the Ruhr with a watching brief for the Soviet Government. France, on the other hand, at any rate during the early stages of the negotiations, made the fusion conditional upon the internationalisation of the Ruhr, the separation of the Rhineland and the economic integration of the Saar with its own territory.

In the Commons debate mentioned above, Mr. Bevin also stated: "The restoration of the economy of Germany, of France and of other liberated countries depends on coal, but we cannot get the coal, steel and other production needed unless the workers are fed." The economic division of Germany makes this task difficult. But in the absence of the complete economic unity of Germany, the economic fusion of the American and British zones represented a considerable advance. It constituted a factor of economic balance, at any rate within the confines of the bizone, by holding out prospects of increasing production and exports, and of diminishing certain costly imports.

The fusion of the two zones naturally involved changes in connection with coal. Discussions between United States and British representatives took place at Washington from 12 August to 10 September 1947, and a programme was drawn up covering the administration, running and output of the mines. This programme will be discussed in detail below.

Determination of an Industrial Production Level for Germany and Plans of 26 March 1946 and 29 August 1947

At the Potsdam Conference (July-August 1945), the three

¹ Debates of 15 and 16 May 1947.

Great Powers¹ laid down the general outline of Allied policy towards conquered Germany. Only those points which are related, directly or indirectly, to the coal mining industry will be discussed here. The general doctrine was based upon two principles: the expiation of Germany and the safeguarding of other countries against a possible revival of the aggressive force of Germany. In practice, these principles meant reparations to be demanded of Germany and the limitation of its industrial potential. To determine the amount of reparations to be paid and arrange for their receipt, and to enforce the limitation of Germany's industrial potential, co-operation between the Powers in charge of the four occupation zones was essential.

Accordingly, the Potsdam Agreement provided that during the occupation period Germany should be treated as a single economic unit, and that to this end common policies should be established covering a certain number of fields. Reference will be made here only to the production and allocation of mining and industrial output, wages, prices, rationing, import and export programmes for Germany as a whole, transport and communications.

From these general data, the economic experts of the Allied Control Council drew up a plan laying down industrial production levels which Germany must not exceed.

This Allied plan for the level of post-war German industry in accordance with the Potsdam Agreement was approved by the Control Council on 26 March 1946. It was valid until the end of 1949, and open to revision should the Council observe changes in its basic provisions.

In accordance with this plan, German industry was divided into four groups. The mines were classified among the group of branches of industry which for the time being the Allies were leaving intact, *i.e.*, they were not intending to remove parts of the equipment on the score of reparations. It was provided that, by the end of 1949, solid fuel production should reach a figure of 155,000,000 tons per annum (in hard coal equivalent) for all the four zones combined, including at least 45,000,000 tons for export. This, according to the estimates, meant a production equivalent to 75 per cent. of the pre-war figure. It should be noted that the industrial production level as a whole, as provided by the plan,

¹ The United States, the United Kingdom and U.S.S.R. France was not invited to this Conference, although it had been assigned an occupation zone on German territory.

corresponded—again according to estimates—to about 50 to 55 per cent. of the 1938 level (building and building materials excepted).¹

This plan, in fact, never came into operation. It was based essentially upon the principle of the economic unity of Germany, and was therefore, of course, affected by the disagreements between the Allies which became steadily worse and made such economic unity impossible.

This fact led the United States and the United Kingdom to draw up a new plan, confined to their two occupation zones, which were already merged. The revised Anglo-American plan establishing an industrial level for the bizon was published on 29 August 1947. It was preceded by consultations in London between the United States, British and French Governments, during which the French Government expressed its concern at the plans for the re-establishment of the industrial level of Germany at approximately the level of 1936.

A plan covering the bizon alone could not, of course, have the same aspect as one covering the whole of Germany. The economic structure of the bizon—which is particularly highly industrialised—involved radical changes in comparison with the standards laid down by the plan of 26 March 1946, the more so because, by reason of numerous factors, the population of the bizon was six million above the 1936 figure, while a further increase, estimated at between two and four million, was forecast for the period between 1947 and 1952.

Industrial levels, in this revised plan, were determined on the basis of the production capacity for steel, which was considerably increased as compared with the previous plan, as it has been altered from 7,500,000 tons for the four zones to 11,500,000 tons for the bizon alone.

Among industries in which production was limited and controlled, the percentage of production increase permitted in the bizon by the terms of the revised plan is larger by comparison with that of March 1946: 135 per cent. for steel; 42 per cent. for mechanical equipment (heavy machinery, 52 per cent.; average machinery, 24 per cent.; machine tools, 224 per cent.); for motor

¹ The establishment of a production level for steel led to serious disagreements between the Allies. The United Kingdom proposed 11,000,000 tons a year; the United States 8,000,000; France 6,000,000 and the U.S.S.R. 3,000,000. Finally, agreement was reached on a figure of 7,500,000 tons for production capacity, the annual output not to exceed 5,800,000 tons without authorisation of the Allied Control Council.

vehicles and tractors—passenger cars, 300 per cent.; commercial vehicles, 62 per cent.; tractors, 56 per cent.; cement, 43 per cent.; chemical industries, 42 per cent.

No change has been made with regard to the mines. As in the plan of March 1946, there is no limitation of production; indeed it will have to be considerably higher to enable the levels fixed for other branches of industry to be reached, and through them to permit the bizonal area to attain such a degree of economic balance as will enable it to become self-sufficient and to be no longer a heavy burden for the United States and the United Kingdom. When the revised plan was made public, on 29 August 1947, the signatories, Sir Sholto Douglas and General Clay, during a Press conference at Berlin, stressed the fact that it would need about three years to reach the new steel production level¹ and that to do so the coal output would have to be between 380,000 and 400,000 tons per day.²

In other words, the success of the revised plan depends upon the coal output. Clearly it is a problem of production, but in view of the present international situation it is complicated by a problem of allocation which must necessarily alarm the importing nations, especially France, Belgium and Luxembourg. In the absence of a surplus margin, more coal for the German economy meant less for the other countries which need it badly, not to mention the revival of a potential danger of rearmament.

During the consultations which took place in London, prior to the publication of the revised plan, between representatives of the United States, the United Kingdom and France, the last-named country reverted to the thesis which she had already defended during the Four-Power Conference at Moscow in March-April 1947, namely, that it would be well to concentrate the steel production of Western Europe round the great iron ore deposits in Lorraine, Belgium and Luxembourg, and that, instead of sending it to the Ruhr, it would be much better to send Ruhr coal to the industrial area of Lorraine, where as much steel could be made as the economic position of Europe required, while also ensuring the industrial recovery of war-devastated countries, as well as the necessary supervision of Germany's revival.

This French proposal for transferring the steel industry to

¹ The production capacity was fixed at 11,500,000 tons, but the actual production permitted at only 10,700,000 tons per annum. It should be noted that the actual steel production in the bizonal area was at the rate of about 2,600,000 tons per annum at the time of the publication of the revised plan.

² At that time the daily coal output averaged 240,000 tons.

Lorraine and leaving the processing industries in the bizonal area was not taken up by the British or the Americans for the following practical and technical reasons; Europe is in immediate need of its industrial resources; but it would take France some years at least to set up an important steel centre in Lorraine. If the possibility of a transfer of the metallurgical installations from the Ruhr to Lorraine were considered, such installations, to be of use, would have to undergo technical modifications involving long delays as well as considerable capital outlay. Finally, the Ruhr, deprived of its steel industry, would also lose a considerable proportion of its combustion gas which is a by-product and is essential to its processing industries. To replace this gas, according to certain estimates, at least five million tons of coal a year would be necessary.

While the Anglo-American and the French theses¹ on the industrial organisation of Germany could not be sufficiently reconciled to enable a programme for joint action to be drawn up, it should nevertheless be noted that there was a certain *rapprochement* which led to measures which paid due attention to the legitimate interests concerned in the allocation of coal and coke.

With regard to coal, as a result of the raising of the levels of industrial production which was authorised by the revised plan, it is easier to appraise the importance of the Moscow Agreement, which established a relationship between the export and the production of German coal. The danger of a German economy developing at the expense of the coal requirements of other European countries is no longer present, at any rate until the highest point of the Moscow scale is reached, i.e., a daily output of 370,000 tons of coal², which carries a guarantee for the export of 25 per cent. of the net saleable output. The question naturally arises again when the daily output exceeds this amount. But the extension of the sliding scale has already been discussed by the three Allies, and, while at the time it was realised that nothing could be gained by a definitive settlement of the question in view of the existing state of affairs, it nevertheless remains true that when daily output exceeds the Moscow scale, or at the latest by the end of 1948, the extension of the scale will have to be examined. It should be added that

¹ Most of the negotiations of this type on Germany take place between the occupying Powers. France as such takes part in them, but very often its attitude on industrial questions is also that of the Benelux countries.

² 370,000 tons for the Ruhr, Aachen and the Saar; 330,000 tons without the Saar.

the British and American representatives have given assurance that they would participate in this examination with full sympathy for the needs of the democratic countries of Europe and with a view to establishing export allocations at not lower than the percentage obtaining at the top of the present sliding scale. With a daily production of 440,000 tons in the Ruhr-Aachen area, every effort will be made to achieve a target of 30 per cent. for export established on the same basis as the 25 per cent. at the top of the present sliding scale.¹

With regard to coke, there was a further problem, in view of the contemplated increase in steel production. At the request of France, this question was carefully considered, and arrangements have been made which have already been examined in detail above, in the section on the adjustment of the Moscow scale.

*Recommendations of the Bipartite Meeting at Washington
(August-September 1947)*

In connection with the revised plan discussed above, talks took place at Washington from 12 August to 10 September 1947 between the United States and British representatives concerning coal production in the Ruhr. At the conclusion of these talks, the parties reached an understanding whereby the Germans should henceforth again be made responsible for the coal production in the bizon, through a Coal Management placed under the control of the United States and British Military Governments, and responsible to them. The methods for carrying out this transfer of responsibility are laid down in a series of recommendations to the United States and British Governments, recommendations which also outline the new coal policy to be pursued as a result of the transfer. In connection with the administration and control of the mines, mention will be made later of the position which arose from this Anglo-American decision. It should merely be noted here that it was to come into force immediately after the discussions on the recommendations as a whole, between the United States and the United Kingdom, on the one hand, and France, Belgium and Luxembourg, on the other, were at an end. In a joint note, France, Belgium and the Netherlands protested against the Anglo-American scheme. They feared that too great a measure of autonomy for the Germans in this

¹ Announcement concerning the tripartite discussions in Berlin on German coal and coke, agreed in London between the United States, British and French representatives and issued on 23 December 1947.

field might conceivably lead to a revival of the German industrial power and thus constitute a menace to the safety of Western Europe. Despite their protest, the responsibility for coal production was transferred to the German Coal Management on 19 November 1947.

German Coal in the London Agreements (June 1948)

The announcement published at the end of the Six-Power Conference¹ (23 February-6 March and 20 April-1 June 1948), generally referred to as the London Agreements, is well known. In view of the fact that the Council of Foreign Ministers² had hitherto failed to achieve a quadripartite agreement on Germany, this Six-Power Conference examined the position of Western Germany and finally framed a number of recommendations which have since been ratified by the Governments concerned.

Generally, the Six Powers agreed that for the political and economic well-being of Western Europe and of a democratic Germany, there must be a close association of their economic life. This close association, which will enable Germany to contribute to and participate in European recovery, was ensured by the inclusion, on 16 April 1948, of the bizon and the French zone in the Organisation for European Economic Co-operation.³

With regard to the Ruhr, and consequently to coal, the London Agreements constitute an advance on the earlier position.⁴ For the first time, in fact, the Six acknowledge the principle of a control over the Ruhr exercised jointly through an international authority in which all of the Six Powers should take part, as well as Germany.

This control in no way implies a political separation of the Ruhr territory from Germany; but it does mean control of the allocation of Ruhr coal, coke and steel in such a way that on the one

¹ The six Powers were: United States, United Kingdom, France, Belgium, Netherlands and Luxembourg.

² United States, France, United Kingdom and U.S.S.R.

³ Set up in connection with the Marshall Plan.

⁴ While there is undeniable progress, this particular point of the London Agreements nevertheless gave rise to strong objection in France when it was discussed in Parliament. Two specific points will be stressed here: the first is that the allocation of coal alone, not its production, or the administration of the mines, will be subject to control; the second is that even this degree of control is illusory, since the United States and the United Kingdom command a majority in the international authority to be set up, so that their views on Germany, which frequently differ from those held in France, are bound always to be accepted.

hand the industries concentrated in the Ruhr basin are prevented from ever becoming an instrument of aggression again, and that on the other hand all the countries taking part in the programme for European co-operation shall have the benefit of the activities of those industries.

In an annex to the Agreements, the composition and functions of the international authority are specified. It is to be set up in the Ruhr, and will begin its work on a date to be determined by the contracting parties, but in any case prior to the constitution of a provisional German Government. Its decisions will be taken by a majority vote, the United States, the United Kingdom, France and Germany having three votes each, and Belgium, the Netherlands and Luxembourg one each. In present circumstances, and so long as the contracting parties do not decide otherwise, the representatives of Germany on the international authority will be appointed by the Powers that share the responsibility for the economic administration of the area which includes the Ruhr, and the right to vote will be exercised, not by Germany, but by those Powers, that is, the United States and the United Kingdom, since the Ruhr is in the bizone.

The functions of the international authority will be to allocate the coal, coke and steel from the Ruhr between German requirements and exports. This will have to be done in conformity with the international or intergovernmental arrangements and agreements previously concluded, and with the programmes of the Organisation for European Economic Co-operation.

The Arrangement concerning the Control of the Coalfields

On 11 November 1948 a Six-Power Conference met in London for the special purpose of considering problems connected with the Ruhr, and to define exactly the terms of reference of the international authority provided for in the London Agreements. On the previous day, 10 November, the Military Governors of the bizone had issued an Order (No. 75) concerning the reorganisation of the coal and steel industries, and this elicited a very strong protest from France.

The French Government, in fact, did not protest against the reorganisation of the industries in question, but more specifically against one of the provisions contained in the preamble to the Order laying down that the question of the ultimate ownership of these industries should be left to the discretion of a represent-

ative German Government freely elected¹, immediately such a Government had been set up. The French Government further protested against the authority which the Military Governments had arrogated to themselves to decide as to the ownership of the coal and steel industries, when France regards this question of ownership as one of a whole set of problems which the Governments concerned cannot attempt to solve until such time as a peace treaty with Germany is concluded.

This is not the appropriate place for a detailed analysis of the development of this matter. Only those factors which bear on the coal industry will be dealt with here.

In connection with the ownership of the coalfields, France feels that to give a German Government such extensive powers as that of the ownership of the heavy industries in the Ruhr would amount to giving it rights which the Reich itself never had in the past. By doing so, there is a risk of "its being given such power as might lead to the most dangerous developments".² It is therefore, above all, the security question which is raised by France.

On the British and American side, where it was held that certain safeguards—of which more will be said later—should calm France's fears, the decision concerning the final ownership was prompted by a desire to put an end to the state of uncertainty as a result of which all development in the industries in question was paralysed, or at any rate seriously impeded. It was considered that the practical scope of the rules for reorganisation laid down in Order No. 75 would have been extremely limited had not the Allied authorities in the bizone, at any rate to a certain extent, taken steps to dissipate the prevailing state of uncertainty as to the ultimate fate of these industries. On the assumption that their participation in the reconstruction of Europe is an essential factor, they must be made to produce to capacity and must be established on a sound economical and financial footing. The uncertainty that had prevailed hitherto made it quite impossible for these industries to obtain loans for their own reconstruction; in a number of cases they had been running at a loss and the United States had indirectly had to bear the brunt of these losses.³

¹ In the absence of an agreement between the four occupying Powers, "Government" in this connection should be understood as meaning a Government of Western Germany only.

² Memorandum sent by France to the Governments of the United States and the United Kingdom.

³ Statement made to the Press by Mr. Marshall, 25 November 1948.

According to the United Kingdom and the United States, the future proprietary rights will be exercised under such conditions as will in themselves constitute adequate safeguards against the danger which France dreads to see again one day. They point out, in fact, that the public announcement accompanying Order No. 75 clearly states that the German Government would have to make a choice as to the final form of ownership of the industries, "within the limits of Military Government policy already expressed". This would prevent the German Government from taking any steps that would encroach upon the exercise of the powers which will be the special attribute of the occupation authorities in the Occupation Statute now in preparation. Nor would the German Government have power to oppose any present or future controls, nor the terms of any future peace treaty.

While the matter as a whole had not yet been solved while this Chapter was being written¹, at any rate the Governments of the United States and the United Kingdom have offered to France, and France has accepted, membership of the Essen Committee, *i.e.*, the Anglo-American Coal Control Group.

By the terms of this arrangement between the Western Allies, the representatives of France will be associated in the implementation of Order No. 75, *i.e.*, in the reorganisation of the coal mining industry.

Thus the development of the German coal industry will continue along general lines which may be summed up as follows: (a) coal "combines" will be broken up and replaced by smaller mining undertakings; (b) deeds of ownership will be transferred to German administrators, appointed by the Military Government (three to five administrators will be appointed to hold the shares of the former owners, though the latter will have no power over the administrators, who will be solely responsible to the Military Government. Although these administrators will act as owners,

¹ At the time of going to press, it is learned, from a communiqué dated 28 December 1948, that the Six-Power Conference has reached an agreement on the Ruhr. The closing communiqué of the Conference announces: (1) the setting-up of an international control authority of the Ruhr industries whose main task will be to effect a distribution of coal, coke and steel between Germany and the other countries (the Moscow scale will remain in force and the activities of the authority will be co-ordinated with those of the Organisation for European Economic Co-operation); (2) the setting-up of a Military Security Office; (3) the control of the administration of Ruhr industries exercised by the Essen Committee will in due course be transferred to the Ruhr authority; (4) the issue of the eventual ownership is not prejudged; (5) the occupation authorities will represent Germany in the Ruhr authority until such time as a German Government is established.

they will not be entitled to distribute dividends nor to dispose of the shares without Allied approval); (c) the German Coal Management, while retaining its functions and remaining under the supervision of the "Essen Committee", will be transformed into a limited liability company with representatives of the mining administrators on its Board of Directors; (d) Allied sequestration will be lifted in regard to the German mines of which more than 50 per cent. of the deeds of ownership belonged to nationals of countries which are Members of the United Nations¹ (these owners will have the right to be represented on the Board of Directors of the above company, and will have to submit to Allied control); (e) lastly, no excessive concentration of undertakings will be permitted, and the industrials who in the past were associated with the Nazi régime will not be eligible for any administrative post.

DEVELOPMENT OF THE ADMINISTRATION AND CONTROL OF THE COALFIELDS BY THE OCCUPYING POWERS

It would appear to be of interest now to examine how, within the framework of general, economic or political decisions, the coalfields have been organised, administered and controlled in view of a fresh start after the collapse of the Third Reich, and how they are gradually reverting to a level of production that is not yet normal, perhaps, but is at any rate sufficient to serve as a basis on which plans for German as well as European reconstruction may be made. In the four occupation zones, control of the coalfields situated within the respective territorial borders of each has passed into the hands of the occupying Power. The coalfields are somewhat unevenly spread over the four zones. The largest are in the British zone, with the Ruhr and Aachen for hard coal, and Cologne and Brunswick for lignite. In the French zone there was the Saar—which has since, as described above, been integrated with France—and very little lignite. The coalfields of Saxony and Lower Saxony and the extensive lignite deposits in Central Germany and the East are within the boundaries of the Soviet zone.² Lastly, in the American zone, there is the Lower Bavarian coalfield, though hard coal is fairly scarce

¹ This measure involves some undertakings in the Aachen area, the owners of which are French or Belgian.

² It should be recalled that as a result of frontier changes the rich coalfields in Upper and Lower Silesia are now in Polish territory.

ere, and lignite deposits at Kassel and Amberg¹, which are, however, not particularly rich.

The Ruhr

First Period : the North German Coal Control

When the Allied armies arrived in the Ruhr and Aachen coalfields, an Anglo-American body took over the mines. This body was the G. 4 Solid Fuels Section of S.H.A.E.F., the head of which was Colonel Robert Koenig, and which for months had been preparing for this task. In July 1945, the responsibility for the Ruhr and Aachen coalfields—the largest in Western Germany—was transferred to a purely British body, the North German Coal Control. On 22 December of that year, following an announcement by the British occupation authorities, the ownership of the coalfields and all their assets were sequestered and entrusted to the North German Coal Control.

The functions of the North German Coal Control (N.G.C.C.) were extensive and somewhat complex for foreign coalfields. They were carried out in the midst of recent ruins, among a population inclined to be mistrustful rather than friendly. By and large, the N.G.C.C. was faced with the task of increasing production, which by December 1945 had slumped to the index figure 41 (1935-1938=100), and to do so had to draw up directives, give instructions and—most difficult of all—see that they were carried out.

Although the N.G.C.C. was well prepared for its task, it could not, numerically speaking, replace all the men, down to the minor officials, throughout the industry. It therefore confined itself to dismissing the higher administrative officials, but left the technical and commercial staff at their posts, placing them under its own direct supervision. It transmitted its instructions to them and demanded that chapter and verse should be supplied of their having been carried out.

The N.G.C.C. set up its headquarters at Essen, in the heart of the Ruhr coalfield, where the Krupp family lived. It consisted of three branches : one in charge of production, one of allocations and one of financial matters.

The Production Branch had a fully worked-out programme to carry out. It had been outlined by the Commander-in-Chief;

¹ See map of Germany at the end of the volume.

coal production was to be raised to its highest possible level, and to this end the mines should have priority for all the necessary equipment. The programme was clear enough, but its implementation was fraught with difficulties. The Production Branch selected those of the damaged mines that could be put into working order at once and in them made a selection of the seams to be worked. It transferred manpower from the provisionally abandoned mines to the more productive ones; in the mine itself, it placed the available manpower in sections where immediate output could be achieved.

At that time, not much manpower was available for use in the mines; equipment, too, was scarce, and the distribution of it was sometimes extremely difficult. A body that had existed in pre-war days, the *Bergbau Verein*, which in the past had done extremely useful work, was revived in the form of the German Mines Supply Organisation, and in this new guise appears to have acquitted itself of its task with great efficiency. This task consisted of the co-ordination of supply needs, the allocation of supplies available, the study of technical developments and the centralisation of statistics.

The Allocations Branch was responsible for the allocation of the output in accordance with the allocations fixed at Berlin, by the higher occupation authorities, first on a quadripartite basis, then, from October 1946 on a tripartite basis, for the reasons already indicated.

The Finance Branch was organised after the announcement of 22 December 1945, which has been referred to above, and as a result of which the financial control of the coalfields passed into the hands of the occupation authorities.

The Ruhr and Aachen in the Bizone

Second Period : The German Coal Management

The fusion of the American and British zones came into force officially on 1 January 1947, in conformity with the agreement of 2 December 1946. From that moment onwards, experts of both countries considered the steps to be taken for the transference to a German body of the responsibility for the administration of the coalfields of the bizone, while leaving them subject to Anglo-American control.

In pursuance of the recommendations set forth by the terms of the Washington talks of 12 August to 18 September 1947,

British Military Government Order No. 112 and United States Military Government Order No. 19 laid down how this important change in the administration of the coalfields was to be brought about.

On 19 November 1947, the administration of the Ruhr and Aachen mines was transferred to a German body, the German Coal Management (*Deutsche Kohlenbergbau-Leitung*). Simultaneously, the N.G.C.C. was replaced by an Anglo-American body, the UK/US Coal Control Group, which was made responsible for the German Coal Management.

The Director-General of the German Coal Management, Mr. Heinrich Kost, an experienced mining engineer, has six assistants, also Germans, in charge respectively of production, distribution and sales, supplies, miners' housing and welfare services, industrial relations, and finance, accounts and statistics.

The Director-General and his assistants are appointed by the UK/US Coal Control Group and are responsible to it for the smooth working of the industry in accordance with the directives and orders of the Military Government and those of the Bizonal Economic Council at Frankfurt¹, after they have been approved by the Military Government. An advisory council, composed of six representatives of workers' organisations, has been set up within the German Coal Management to advise it on questions requiring consultation with such bodies.

Within the limitations laid down by Military Government directives and Orders, and with that body's approval, the German Coal Management has set up its own internal organisation and has defined its functions. The central directorate is responsible for defining and dealing with problems relating exclusively to "major policy" in the industry, while refraining from interfering in any way with current matters. The private companies retain their own status, and continue to function under their present management. For administrative reasons, the coalfields have been divided into nine districts, each headed by a responsible official, who is generally a director of a group of collieries and maintains liaison with the central organisation.

Above the German Coal Management, as stated, is the UK/US Coal Control Group, which is a bipartite body with two chairmen,

¹ By the terms of a decision of the Military Government, the Bizonal Economic Council has powers to exercise Government functions of an economic character, and may issue orders concerning certain definite questions relating to the coal mining industry.

one British—Mr. H. E. Collins, a former chief of the North German Coal Control and an experienced technician—and one American—Mr. R. H. Estill, Vice-President of the Frick Coke Company, of Pittsburgh. It is in direct control of the German Coal Management, the control previously exercised at the mine itself having disappeared. The former district organisations have been disbanded, except in places where special conditions warrant their existence, e.g., at Aachen and Halmstedt. The staff of the UK/US Coal Control Group is Anglo-American, and is fairly restricted in numbers. It is composed of engineers attached to the headquarters¹ as inspectors. The general policy consists in delegating the maximum amount of responsibility to the German body, and ensuring that it abides by the decisions of the Military Government of the bizone.²

Plans for the Future

As has been shown, the German Coal Management is responsible for the administration of the industry. When it was set up, it was clearly understood that it should make no move to change the present nature of the ownership of the mines. The legal status of the industry, under the rule of the German Coal Management, remains as it was before, under the rule of the North German Coal Control—that is, sequestered, in conformity with the announcement of the British authorities of 22 December 1945.

But sequestration in itself is not a status. It implies a period of waiting; it is a transition. And the announcement, in explaining the motives which justified the sequestration of the coalfields and of their assets³ itself laid down at least the principle of the future status when it declared that "the German owners are to be finally dispossessed and will receive no compensation".

The Rhineland-Westphalian Diet, in the case of the coalfields in its territory—and this concerns the Ruhr Basin as well—has made preparations for the stage that will follow upon sequestration.

¹ Essen remains the headquarters of the German Coal Management, as distinct from that of the UK/US Coal Control Group, which has remained at the Villa Hügel, near Essen.

² In the preceding Section it has been explained how the industry was to be reorganised by the terms of Order No. 75. It is too early as yet to give details concerning this reorganisation. It should merely be added that as a result of an agreement between the three occupying Powers in Western Germany, the Coal Control Group now includes French representatives.

³ The announcement was based on Section III of the Potsdam Agreement, which provides that production of all items necessary to war economy shall be rigidly controlled and that German economy shall be decentralised for the purpose of eliminating excessive concentration of economic power.

By an Act passed on 6 October 1948, the Diet has decided upon the nationalisation of the hard coal and lignite mines, to come into force on the day when the Military Governments lift the sequestration.

The point at issue now is whether this decision of the Rhineland-Westphalian Diet is valid or whether its application will be subject to the approval of a central German Parliament which has not yet been set up. In authorised circles among the occupying Powers, it is observed in this connection that the mines are a national heritage, and that any change in the nature of their ownership or management which concerns the nation as a whole must be deferred, pending the time when a Government representing the entire nation will be in a position to give a decision concerning this change. Whatever may be the final outcome, in view of the fact that this Act has been passed by the Parliament of one of the most important *Länder* of Western Germany, its contents are of sufficient interest to be briefly summarised here.

By the terms of this Act, the *Land* Rhineland-Westphalia—pending subsequent legislation by a body representing the whole of Germany—becomes the sole owner of the hard coal and lignite deposits, of the mines as well as the ancillary establishments, branches, equipment and prospecting installations, washeries, power stations, patents of inventions, plans, etc. An autonomous coal administration would be set up to run and administer the industry on behalf of the country. The executive body of this administration would be a Coal Board composed of thirty-three members, ten representing the Diet, ten the trade unions, five the Mines Management, two the local authorities, three all the other industries, and three the research laboratories and the vocational training services. The members of the Board would be appointed for three years by the Diet itself, after consultation with the groups concerned. Fifteen members of the Board must have had at least five years' mining experience.

Lastly, provision is made for compensation to the former owners of the mines, subject to certain conditions, chiefly that they must not have been active members of the Nazi party or war criminals.

The Saar

Unlike the Ruhr mines, those in the Saar before the war were the property of the German Government. They were sequestered by France after an announcement—issued by the French authori-

ties on 25 December 1945—similar to the British announcement concerning the Ruhr, and made three days previously. A French engineer, with the title of Director-General of the Saar mines, was then entrusted with the supervision of the mines.

As a result of the economic integration of the Saar with France, on 1 January 1948 a Saar Mines Administration was established, under the authority of the French Ministry of Industrial Production. The questions of ownership and of operating rights, however, are not yet settled. A French Director-General is responsible for the administration of the mines, assisted by an Administrative Board composed of representatives of the French Government and of the French High Commissioner in the Saar. This administrative body is supplemented by the Higher Council for the Saar Mines, which is a consultative body. It is composed of the French High Commissioner in the Saar, and of thirty members appointed by various French Ministries, economic interests in the Saar, and French and Saar workers' organisations.

The Soviet Zone

In the absence of detailed official documentation, it is not easy to give an exact picture of the administration of the coal-fields in the Soviet zone. What may be stated with some degree of certainty is that very considerable modifications in the administrative structure have been carried out.

At the end of May 1947, the Diets of Thuringia and Saxe-Anhalt decided that the deposits should be nationalised, as well as the mines, installations, factories connected with the industry and by-products. While the nationalisation Act passed by the Diet of Saxe-Anhalt provides for compensation for such of the owners as cannot be accused of having been "active Nazis" or war criminals, the Act passed by the Diet of Thuringia does not appear to provide for compensation for anyone at all. According to a Press release dated early July 1948, Mr. Selbamm, Vice-Chairman of the Central Economic Commission, is said to have stated that at that time 99 per cent. of the coal output was "in the hands of the people", in other words, nationalised.

It would seem that the industrial organisation is highly centralised, first of all in the hands of the German Central Economic Commission, and then in those of the Economic Division of the Soviet Military Administration, which is placed above and controls the former body.

In February 1948, the Central Economic Commission was reorganised. The various existing administrations were merged into sixteen new divisions, each of which was responsible for a given section of the national economy. An executive committee was set up to control the divisions, known as the Secretariat and composed of nine members; its Chairman is also Chairman of the Central Economic Commission. The latter body is composed of thirty-three members in all—the nine members of the Secretariat, the heads of the sixteen divisions, two representatives of the trade union organisations, one representative of the agricultural co-operatives and five representatives of the *Länder*.

It appears that one of these divisions is responsible for fuel and power, with special reference to production, distribution of manpower and the allocation of mining equipment with a view to the implementation of production programmes drawn up at a higher level.

GENERAL SURVEY

To appraise the difficulties encountered in regard to the revival of the German coal mining industry, note should be taken of the state of the coal mines when the victorious Allied armies reached the coalfields, and when the specialised labour forces that followed the armies set to work.

In the Ruhr, the normal daily production, which had formerly exceeded 400,000 tons, had fallen to 30,000 tons. The entire coalfield had been seriously damaged by air attack and land fighting. Some mines, representing 10 per cent. of the total output, had been so badly damaged that even three years after the end of hostilities they were not reconditioned. Of those now in working order, 25 per cent. were seriously damaged and not one was intact.¹ In the Saar Basin, a similar situation obtained, 20 to 25 per cent. of the surface installations having sustained damage as a result of war operations.² As for installations and equipment spared by the war, these were either worn out or inadequate. In this connection, it will be recalled that during the final phase of the war Speer, the German Armaments Minister, demanded a huge effort of the mines, with almost complete disregard for their

¹ *Report on the Anglo-American Talks on Ruhr Coal Production*, 10 September 1947.

² MINISTÈRE DE L'ÉCONOMIE NATIONALE, INSTITUT DE LA STATISTIQUE ET DES ÉTUDES ÉCONOMIQUES : *L'économie de la Sarre* (Paris).

equipment, which thus had to stand up to a good deal, without maintenance or hope of replacement.

The stocks of mining supplies were completely exhausted. A particularly serious feature of the situation was the absence of supplies of pit props, a large number of which had gone up in flames. Those factories making mining equipment which still remained were practically paralysed by the prevailing shortages of raw material.

Finally, the absence of transport, by rail and water alike, further aggravated the entire coal situation; the coal produced piled up at the pit-heads, while the urgently needed supplies, even in small quantities, could not reach the mines.

Refitting and Rebuilding of Stocks

The production of coal, which was so urgently needed, was conditioned above all by the immediate and simultaneous solution of a large number of problems, and it meant repairing and rebuilding as well. Repairs, re-equipment, the rebuilding of stocks were all carried out simultaneously with the production of coal. In the general programme for the reconstruction of the German economy, special allocations and priorities were granted, both for raw materials and transport, either directly to the coal industry, or to branches of industry working for it. Special credits were allotted to expedite the rebuilding of the coalfields, sometimes at the expense of considerable difficulties for the occupying Powers. The report on the Anglo-American talks in September 1947, already referred to, recommended, *inter alia*, the import during the half-year that followed of large quantities of steel and other materials essential to the coal industry in the Ruhr and Aachen coalfields, to an approximative value of 25,000,000 dollars. In the Saar, modern American machinery worth six million dollars was introduced into the mines by the French authorities.

As a result of these various measures, the output of the German factories making mining equipment has risen considerably. For the bizone, it rose from 1,665 tons in August 1947, to 4,748 tons in December of that year. During the first five months of 1948, this output was maintained at a monthly average of four thousand tons.¹

According to the estimates contained in the report of the

¹ *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*.

Anglo-American experts¹ the production capacity of the Ruhr-Aachen coalfields by September 1947, with the manpower then available and with the existing surface installations, mining equipment and transport, had reached 350,000 tons per day. Between production capacity and actual output there remains a margin, since the latter still fluctuates between 270,000 and 300,000 tons; but, according to the same source, any attempt to increase the production capacity to a figure exceeding 350,000 tons per day would require considerable repairs and new equipment. To restore the pre-war output of the Ruhr-Aachen coalfields would require some one and a half to two million tons of steel, not to mention other raw materials.

Supplies of pitwood are no longer five to six months ahead of requirements; but at any rate there is now a certain safety margin. In the bizonal this margin has been built up more especially since January 1948, as may be seen from table XX.

TABLE XX. GERMANY (BIZONE): PITWOOD (SUPPLIES, CONSUMPTION AND STOCKS)
(Cubic metres)

Period	Supplies	Consumption	End of the month stocks ¹
1946: December . .	72,616	78,865	144,144
1947: December . .	213,684	223,764	149,715
1948: January . . .	211,711	222,077	139,604
February	321,121	216,016	234,168
March	401,065	242,116	377,315
April	366,193	239,846	490,316
May	309,774	206,541	583,167
June	281,578	251,981	610,375
July	310,523	264,641	652,270
August	276,330	246,673	679,981
September ² . .	219,000	254,000	650,100

Sources: Data published by the European Coal Organisation, the Economic Commission for Europe and the *Monthly Progress Report, Deutsche Kohlenbergbau-Leitung* (Essen).

¹ A 10 per cent. deduction is made on all figures to allow for unserviceable woods.

² Provisional figures.

In the Saar, the position was much the same at the time of its integration with France. By the end of April 1948, supplies amounted to 87,767 cubic metres, and consumption for the same month to 38,473 cubic metres, which represents a good two months' safety margin.

Progress in regard to Output

In all probability, the acute coal famine from which Europe has suffered for the past three years has given rise to a feeling that results were slow to materialise. In addition, insufficient account has perhaps been taken of the work of the modest and often obscure fighters in this struggle against chaos waged by engineers, technicians, administrators and workers of all categories and of different nationalities: British, American and French, as well as people of the Saar and Germans, who, day by day, have

TABLE XXI. WESTERN GERMANY: MONTHLY OUTPUT OF SOLID FUEL IN THE BIZONE AND THE FRENCH ZONE

(Thousands of metric tons)

Period	Bizone ¹			French zone (Saar) ²		
	Net production ³	Net production index	Available saleable production ⁴	Net production ³	Net production index	Available saleable production ⁴
1936: Monthly average . .	11,297	100	9,078	967	100	*
1945: Average July-Dec. .	3,985	35	2,818	414	43	303
1946: Monthly average . .	5,886	52	4,111	657	68	477
1947: Monthly average . .	7,526	67	5,371	874	90	667
1948: Jan.	8,384	74	5,883	1,010	104	855
Feb.	8,039	71	5,702	912	93	767
Mar.	9,025	80	6,434	943	96	796
Apr.	8,712	77	6,332	1,015	104	867
May	7,453	66	6,269	897	93	769
June	9,097	80	6,820	1,064	110	910
July	9,482	84	7,275	1,150	119	994
Aug.	9,194	81	6,992	1,110	114	967
Sept.	9,380	83	6,982	1,061	110	908

Sources: *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)* (Berlin); *Monthly Progress Report, Deutsche Kohlenbergbau-Leitung* (Essen); Economic Commission for Europe (Coal Division); Mining Documentation Office.

* -- no figures available.

¹ As a result of the economic merger of the British and American zones, the data concerning the bizonal have been grouped together. The bizonal includes the Ruhr and Aachen coalfields for hard coal, the Munich region for bituminous and sub-bituminous coal, and Cologne-Brunswick, Kassel and Amberg for lignite.

² Since 1 April 1948, the hard coal output of the Saar is no longer classified as forming part of the German economy, but comes under the French. Nevertheless, data for the Saar are given up to September 1948, to give a better picture of the development in the three zones.

³ Production calculated in hard coal equivalent (hard coal, 100; bituminous and semi-bituminous, 68; lignite, 31).

⁴ Net production minus consumption of the mines, coking plants, patent fuel plants, and quantities distributed to miners, plus the net production of the coking plants and patent fuel

helped to bring to life again these coalfields that are so essential to the economic survival of Europe. But today there are results to show, in the form of an ascending production curve, which stands out all the more because the background described above was so gloomy. The upward trend of the production curve may be traced in table XXI.

Thus, in the Saar coalfield, the 1936 level was exceeded by January 1948, the net production index rising to 104, as against 100. For the bizon as a whole, in September 1948, the production index rose to 83, as against 100 in 1936. Progress was less rapid than in the Saar, but here it should be remembered that the total production of the bizon is normally about ten times that of the Saar, and that it includes the Ruhr and Aachen coalfields where, because of their extent, the problems to be solved are more complex than anywhere else.

No detailed or regular information is available for the Soviet zone. According, however, to the data collected by the UK/US Coal Control Group and published in the *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*, it is possible to follow the development of the coal production in that zone. Table XXII shows the trend up to January 1948.

TABLE XXII. EASTERN GERMANY : HARD COAL AND LIGNITE PRODUCTION IN THE SOVIET ZONE

(Thousands of metric tons)

Period	Hard coal	Lignite	Total ¹	Production index
1936 : Monthly average . .	293	8,648	2,973	100
1945 : Average July-Dec. .	166	6,590	2,209	74
1946 : Monthly average . .	210	9,055	3,017	101
1947 : Monthly average . .	230	8,483	2,860	96
1948 : January ²	240	9,255	3,109	105

Source : *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)* (Berlin).

¹ Equivalent to hard coal.

² Latest data available.

It will be observed that hard coal production in the Soviet zone is inconsiderable, and that in January 1948 it was still below the monthly average for 1936, while lignite, on the other hand, had attained the 1936 level by 1946, so that by January 1948 the index which covers both hard coal and the lignite equivalent of hard coal was five points above the 1936 index.

Exports

The improvement in production during 1948 had immediate repercussions on the European coal market in the form of a corresponding increase in exports. The Moscow Agreement, with its sliding scale establishing a relationship between output and export, operated on the whole to the advantage of the importing countries. Despite the pressing needs of the German economy, no difficulty has so far arisen in connection with the rules governing the proportional allocation of coal between German requirements and exports.

In August 1948, export figures for the bizon amounted to 1,834,000 tons, that is, they were more than twice the monthly average for 1947, while the export figures for the first nine months of 1948 show an increase of nearly 62 per cent. by comparison with the monthly average for 1947. Table XXIII shows the rise in the export figures, and also the way in which the exports were distributed as between the various countries.

TABLE XXIII. WESTERN GERMANY : SOLID FUEL EXPORTS FROM THE BIZONE AND COUNTRIES OF DESTINATION OF EXPORTS

(Thousands of metric tons)

Country of destination	1946	1947	1948 ¹								
	Monthly average	Monthly average	Jan.	Feb.	Mar. ²	April	May	June ³	July	Aug. ⁴	Sept.
Austria	176	180	229	284	309	211	183	327	289	307	245
Belgium ⁵	135	78	72	92	162	78	71	159	120	69	135
Denmark	124	70	84	83	136	80	1	—	9	49	84
Finland	7	12	—	—	—	35	35	44	30	36	22
France and French North Africa . .	172	161	123	251	395	277	314	492	480	582	436
Greece	5	17	13	29	48	23	1	11	10	1	23
Hungary	—	—	—	—	—	—	—	12	8	14	10
Italy	50	30	54	138	166	131	87	115	75	206	164
Luxembourg ⁶	113	121	136	152	198	157	159	224	222	277	199
Netherlands ⁷	136	103	59	144	221	146	132	223	178	173	195
Norway	53	38	84	64	73	2	—	4	12	18	9
Portugal	5	9	10	14	18	4	1	6	—	—	7
Sweden	13	15	36	32	49	75	51	107	63	69	35
Switzerland	5	13	17	20	32	21	57	48	33	33	37
Total monthly averages ⁸ . .	997	897	917	1,267	1,807	1,240	1,092	1,782	1,529	1,834	1,601

Source : *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)* (Berlin).

¹ Four-week month except where otherwise stated. ² Five-week month. ³ Inclusive of bunker coal. ⁴ Since the figures are rounded off to the thousand, the totals in some cases show a slight difference—1946 : absolute total, 11,969,000 tons, including 46,000 tons for Yugoslavia. 1947 : absolute total, 10,764,000 tons, including 1,000 tons for Yugoslavia.

The traditional large-scale importers of German coal, such as Belgium, France, Italy, Luxembourg and the Netherlands, have not yet found it possible to obtain all the supplies they now require; but from the figures in table XXIII it is clear that there has been a definite improvement during 1948. The Germans themselves reap the benefit of this, since the entire value of their exports, in dollars, is placed at their disposal to enable them to import raw materials and other essential commodities, with the exception, however, of foodstuffs.

SOCIAL ASPECTS OF THE GERMAN COAL POSITION

In such a complex general situation, the extent of the social problems that confronted the occupying Powers may be readily imagined. From the social standpoint, as well as from the economic and technical, all these problems had to be solved simultaneously. Since each was linked with all the others, a single careless action or omission would have been sufficient to endanger the entire task of reviving the coal mining industry. The problems were: manpower, its recruitment and to a large extent its training; housing; food; output and incentives; wages; hours of work; relations with the workers and denazification.

In the pages which follow, an attempt has been made to set forth, as clearly as possible, the steps taken and the results attained so far, in order to enable the Committee to appraise the work done in this field since the collapse of Nazi Germany.

Manpower

When the British and French authorities took over the mines in the Ruhr, Aachen and Saar coalfields, they did not, of course, find a normal situation in regard to manpower. The policy pursued by the German Government during the closing stages of the war led, after the collapse of Germany, to a complete disorganisation of the mining labour force.

Germany, under pressure of military needs, had in fact removed from the mines all the younger men, who were often the most highly trained, to satisfy the insatiable needs of its armies. To replace them, the Government brought in tens of thousands of men from countries which Germany had conquered and occupied, to do forced labour in the mines. It may be readily understood that, once Germany was conquered, these slaves of modern times

returned to their own countries. In addition to this liberation of forced labour, the few remaining German workers were dispersed as the Allied armies advanced and as a result of the bombing of the industrial centres. The number of shifts worked daily (underground and surface) fell to 100,000, while normally it amounted to 400,000.¹

In the Ruhr, production, which at one time had exceeded 400,000 tons per day, had fallen to 30,000 tons. This drop was naturally due to a combination of several factors, but there is one which should be noted here, namely, the change in the structure of the manpower, which is clearly apparent from table XXIV.

TABLE XXIV. WESTERN GERMANY: DISTRIBUTION OF MANPOWER IN THE RUHR COALFIELD BY AGE GROUPS AND PERCENTAGE OF TOTAL LABOUR FORCE

Age groups	1936	1943	1946
Up to 19 years	10.9	5.2	4.8
20 - 29 „	32.1	15.9	10.3
30 - 39 „	32.1	34.7	24.9
40 - 49 „	14.9	30.9	36.7
Over 50 „	10.0	13.0	23.3

Source: German Press, *Etudes et Conjonctures, Economie mondiale*, Feb.-March-April 1948.

It was, therefore, of the utmost urgency that fresh manpower should be found for the mines. Judging by the results achieved, it would seem that the recruitment policy has borne fruit, since the manpower figures are now almost equal to those for 1937. Table XXV shows how the position has developed.

In the Saar, the position righted itself more quickly than in the Ruhr. In July 1945, manpower figures (underground and surface) were down to 18,400. Early in 1948, they had reverted to their 1937 level, and the increase continued during the months that followed.

In the American zone, also, the position has improved at a satisfactory rate. In the Munich coalfield (bituminous and sub-bituminous) and in the lignite mines, manpower figures during

¹ Report on the Anglo-American Talks on Ruhr Coal Production, *op. cit.*

1937 returned to their 1937 level. It is true that this is a less important section of the industry, and the problems which it has to face are unlike those that arise in connection with the Ruhr and Aachen coalfields, both of which are situated in the British zone.

In the British zone, manpower figures now greatly exceed the 1937 level in the case of the lignite mines; for hard coal, on the contrary, recovery has been slower, and in September 1948 the index figure was still only 96 in comparison with 1937.

TABLE XXV. WESTERN GERMANY: MINING LABOUR FORCE IN THE BRITISH, AMERICAN AND FRENCH ZONES¹

Period	Bizone							Saar		
	British zone				American zone			French zone ¹		
	Hard coal			Lignite (d)	Bitu- minous and sub-bl- tumin. (e)	Lignite (f)	Total c, d, e, f	Under- ground	Surface	Total
	Under- ground (a)	Surface (b)	Total (c)							
Monthly average										
1937	226,875	83,617	310,292	16,794	*	*	*			
1946	150,499	54,552	205,051	21,096	6,724	5,344	238,215	32,200	11,550	43,750
1947	193,867	57,384	251,251	23,496	7,000	6,703	288,450	22,477	8,192	30,669
1948 ²								29,597	10,039	39,636
January	215,179	67,284	282,463	24,613	7,724	7,700	322,500	31,283	10,548	41,831
February	220,025	69,430	289,455	25,460	7,590	7,649	330,154	37,376	20,315	57,691
March	224,328	70,739	295,067	25,572	7,625	7,771	336,035	37,905	20,626	58,531
April	217,108	72,943	290,051	26,004	7,490	7,944	331,489	38,452	20,751	59,203
May	216,489	74,872	291,361	29,594	7,410	7,917	336,282	38,864	20,562	59,426
June	221,929	71,857	293,786	28,781	7,391	8,450	341,900	39,691	20,426	60,117
July	226,564	72,177	298,741	28,136	7,189	7,834	339,922	40,208	21,080	61,288
August	225,762	71,259	297,021	28,273	6,857	7,771	339,922	40,031	21,248	61,279
September	226,162	70,067	296,229	27,354	6,854	7,966	338,403			

Sources: Monthly Statistical Bulletin of the Control Commission for Germany (British Element) (Berlin), and Economic Commission for Europe (Coal Division).

* = no figures available.

¹ Based on the average daily shift.

² There was an actual increase in manpower in the bizone between 1947 and 1948. It should, however, be remembered that the standardisation from November 1947 onwards of personnel lists for all mines resulted in slightly higher figures than for the preceding period.

The recruitment policy applied in the bizone may be divided into two stages. The first, which lasted from the taking-over of the mines to November 1946, is characterised by the "search for the miner". The British authorities prospected among the prisoners of war in their zone, and found 35,000 miners among them, who were freed and returned to the mines. Recruitment of manpower for the coal mining industry was granted a No. 1 priority, and German employment offices, under the direction of the

Manpower Division of the Control Commission, resumed their former activities. All men between eighteen and thirty-five years of age who were not engaged in essential work were directed into the mines. This process met with numerous difficulties, and a large number of desertions were recorded, for this "compulsory recruitment" was particularly unpopular in rural districts—the main source of manpower—where men had never met housing or food difficulties and were not prepared to go to work in the devastated and inadequately supplied Ruhr. By the end of 1946, however, as may be seen from the above table XXV, more than 200,000 shifts per day were being worked in the hard coal mines.

The second stage, which dates from November 1946 onwards, is characterised by the "appeal to the miner". Once the possibilities of the main prospecting areas were exhausted—prisoners of war camps and rural districts—the British authorities decided, in the general chaos of a region where devastation was particularly severe, to make the miner's calling more attractive. Whereas wages in the other industries were frozen, those of the miners were raised by 20 per cent. from November 1946 onwards, placing the miner at the summit of the wages hierarchy. On 16 January 1947, a special miners' "points" scheme was introduced, and their food supplies were thereby greatly improved by comparison with the rest of the population. This will be referred to again later.

These two decisions served to increase the rate of voluntary recruitment, and as a result it was possible to abandon compulsory recruitment. It is noteworthy that the new recruits who reported for work in the mines hailed not only from the Ruhr area; there was a large number also from the southern part of the bizone.

It may be said that from mid-1948 onwards, the manpower problem, quantitatively speaking, no longer existed, in this sense, that, taking into account other factors connected with reconstruction in the coal mining industry, the labour force no longer constituted a major obstacle to increased output. Yet while numerically speaking, the problem had lost some of its original acuteness, it retained all its importance from the standpoint of the quality of manpower recruited, since such a large proportion of the workers were new to mining.

Along with their recruitment policy, the responsible authorities therefore instituted a methodical policy of vocational training. In July 1948, 21,391 trainees were working at the four types of training establishments for miners in the bizone, namely: 19,376

at vocational schools, 1,157 at preparatory schools, 788 at mining schools and 70 at high schools.

A similar attempt has been made in the Saar, in proportion to the number of workers.

Miners' Housing

One of the most serious problems confronting the Allied authorities was that of housing the miners. In the British zone alone, out of 250,000 miners' houses, 66,000 were completely destroyed, while 130,000 suffered damage of various kinds.¹ Great efforts have been made, but, despite remarkable results the housing situation remains extremely grave.

Since it is impossible to build new houses the utmost possible efforts have been made to repair such buildings as are repairable. This was an arduous task, in view of the almost total lack of essential materials, but the miners themselves—in most cases—undertook to do it. By the middle of 1946, 95,000 dwellings in the Ruhr had been repaired; and, with the assistance of the responsible authorities, hostel accommodation was provided in the neighbourhood of most mines. Similarly, two thousand huts were erected by the British army for the provisional accommodation of miners.

Early in 1946, a five-year building plan was undertaken in the Ruhr, in which miners' housing was granted priority over housing for the rest of the population. All these measures nevertheless proved to be inadequate, or too slow, and an accelerated programme for miners, to be completed in two years, was launched towards the second quarter of 1947 and has already made it possible to lodge a number of new recruits.²

A new building programme for miners' housing was in preparation in the *Land* of North Rhineland-Westphalia, to be launched on 1 October 1948. This programme provides for the repairing of 143,000 dwellings, the rebuilding of a further 21,000, as well as the building of 28,000 new ones. It will necessitate 45,000 workers, i.e., 10,000 more than were at work by mid-1948. It is to be financed to a large extent from the public funds of the *Land*, and the cost is assessed at 1,700 million Deutsch Marks.

¹ Statement by Mr. H. E. Collins, former head of the North German Coal Control and now one of the Chairmen of the UK/US Coal Control Group, during a lecture at Doncaster on 6 May 1948 (*Colliery Guardian*, 16 and 23 July 1948).

² Mr. H. E. Collins, lecture quoted above.

The *Land*, however, does not appear to be in a position to undertake this expenditure without assistance, and it has been stressed that North Rhineland-Westphalia is not the only *Land* concerned in Ruhr coal production. It also affects other *Länder* and it seems likely that they will be approached for a contribution. Any increase in the price of coal with a view to constituting a special fund appears to have been rejected as impossible; on the other hand, the setting aside of a part of the profit margin recently created by the raising of the export price of coal, is now under active consideration. Pending a decision, the *Land's* Exchequer has granted advances for the implementation of the programme.³

Food Rations for Miners and their Effect on Output

Among the problems affecting the human factor in the rebuilding of the coal mining industry, that of food for the miners, even more than housing, has never ceased to engage the attention of the occupation authorities. In this field considerable fluctuations have been observed since the collapse of Germany, each one reflecting the general difficulties which the Allied authorities have had to face.

In the midst of all these difficulties, an effort has nevertheless been made to maintain, in some way or other, the system whereby miners are privileged by comparison with the population in general. In the British zone, for example, even early in 1945, when the daily ration of the general population represented only 1,100 calories, mine canteens made special distributions bringing up the mineworkers' rations to 2,800 calories daily. In the middle of 1945, the ration was raised to 1,555 calories for the general population and to 3,400 for miners, and when the first food crisis occurred, in March 1946, and the general ration had to be reduced to 1,014 calories, the miners nevertheless received rations representing 2,900 calories daily.

In table XXVI an attempt has been made to show, by selecting a few periods during the years 1946-1947 and 1948, how the food position for miners compared with that of the general population, of very heavy workers and of heavy workers in other industries, who also receive additional rations.

It should be stated that, at any rate for the British, American and French zones, the workers in the ancillary factories are classi-

³ *Iron and Coal Trades Review*, 24 Sept. 1948.

TABLE XXVI. GERMANY: DAILY FOOD RATIONS ALLOTTED TO THE GENERAL POPULATION AND TO THE MINERS
IN THE BRITISH, AMERICAN, FRENCH AND SOVIET ZONES
(Calories)

Period	General population												Miners					
	Normal consumers						Very heavy workers						Heavy workers			Very heavy workers		
	American zone			French zone ¹			British zone			Soviet zone ²			American zone			French zone		
	British zone	American zone	French zone ¹	Soviet zone ²	British zone	American zone	French zone ¹	Soviet zone ²	British zone	American zone	French zone ¹	Soviet zone ²	British zone	American zone	French zone	Soviet zone	French zone	Soviet zone
1946:																		
4 Feb.-3 March .	1,555	—	—	—	2,260	—	—	—	2,819	—	—	—	2,819	—	—	3,400	—	—
27 May-23 June .	1,050	1,275	926	—	1,780	2,125	1,102	—	2,337	2,475	1,489	—	2,327	—	—	2,864	—	3,227
10 Oct.-10 Nov. .	1,550	1,550	1,286	—	2,506	2,505	2,105	—	2,876	2,850	2,500	—	3,205	3,400	2,933	4,007	4,000	4,042
1947:																		
31 March-27 April	1,547	1,549	1,347	1,403	2,503	2,506	1,918	1,932	2,873	2,850	2,506	2,194	3,264	3,410	2,994	3,956	4,000	3,872
10 Nov.-6 Dec. .	1,553	1,558	1,387	—	2,698	2,703	2,406	—	3,273	3,278	2,856	—	3,364	3,324	2,992	4,060	4,019	3,955
1948:																		
5 Jan.-1 Feb. . .	1,509	1,509	1,387	1,336	2,654	2,654	2,406	2,614	3,229	3,229	2,856	2,649	3,364	3,364	2,993	3,019	4,060	4,019
July	1,980	1,980	—	—	2,915	2,915	—	—	3,420	3,420	—	—	3,805	3,805	—	—	4,485	4,485
August	1,825	1,825	—	—	—	—	—	—	—	—	—	—	3,505	3,505	—	—	4,185	4,185
Sept.	1,845	1,845	1,411	1,617	2,590	2,590	2,437	2,614	3,090	3,090	2,958	2,649	3,547	3,547	—	3,001	4,250	4,250

Sources: Monthly Report of the Control Commission for Germany (British Element) and Monthly Statistical Bulletin of the Control Commission for Germany (British Element).
1 For cities of more than 20,000 inhabitants, and exclusive of the Saar. 2 For large cities (rations are lower in smaller cities).

fied with the miners. In June 1948, 335,300 workers in the British and American bizon were receiving the ration for heavy workers and 233,500 the ration for very heavy workers.

A comparison between quantities of foodstuffs may perhaps give a clearer idea than a comparison between rations expressed in terms of calories. Table XXVII contains a list of essential foods in the miner's diet, with the quantities allocated in the bizon for July 1948 to ordinary consumers and to miners.

TABLE XXVII. WESTERN GERMANY, BIZONE: ALLOCATIONS OF CERTAIN FOODSTUFFS TO THE GENERAL POPULATION AND TO THE MINERS IN JULY 1948

(Kilograms)

Foodstuffs	Rations for general population	Supplements for miners			
		Very heavy workers		Heavy workers	
		British zone	American zone	British zone	American zone
Bread	10.00	8.69	9.00	14.34	14.80
Coffee (substitute) .	0.13	—	—	0.26	0.26
Potatoes	20.00	13.07	6.75	13.07	13.50
Meat	0.30	3.11	3.27	4.30	4.50
Fats	0.70	1.40	1.80	2.04	2.10
Cheese	0.13	0.17	0.28	0.35	0.28
Sugar	1.50	0.10	0.11	0.10	0.11

Source: Monthly Statistical Bulletin of the Control Commission for Germany (British Element) (Berlin).

The figures in tables XXVI and XXVII for the population in general as well as for the miners, refer to the rations officially allocated to each person by the food authorities. In view of general conditions, however, and owing to the absence of a balanced economy in all the four occupation zones, and also, in some cases, to the failure on the part of the Germans themselves to take up the quotas allotted from home sources, the rations actually distributed frequently fell short of those allotted. In particular there were three extremely critical periods—March 1946, April 1947 and December 1947.

For example, in April 1947 the ration assigned to the general population was 1,550 calories per day, while the amount actually distributed represented barely 900 calories. Thereafter there was a slow but gradual increase, until it reached 1,500 calories in September-October, though it dropped again to 1,280 in December. In April 1948 it rose again to the neighbourhood of 1,420 calories, and in May to 1,480 calories.

Although the miners received supplementary rations, they nevertheless suffered from the unfortunate effects of the fluctuations in the basic rations distributed to the population as a whole. They therefore took part in the protest strikes which broke out in the zones of Western Germany.

Such an atmosphere was naturally not conducive to the recovery of the coal mining industry, which was further delayed by another factor—the supplementary rations given to the miners to keep them sufficiently fit physically for an effort to raise the output in the mines, failed in their purpose. The rations distributed to the population in general had dropped below the minimum standard necessary to maintain physical fitness; and therefore the miners, more than ever before, were inclined to share their extra rations with their families. As a result, it became difficult to continue to regard the miner as an individual unit, when in reality he formed part of a family unit.

This state of affairs, in addition to the fact that, on a market deprived of goods, the miners could not make use of the additional purchasing power arising from the 20 per cent. increase in their wages granted in November 1946, led the bizonal authorities to devise a policy of successive and different incentives to production.

The first of these incentives was introduced in January 1947, independently of the food rations described above, in the form of a "special points scheme" for miners, which consisted of a monthly allocation of a number of points and coupons entitling their holder to purchase certain scarce commodities that were inaccessible to the population in general. This system includes seven categories, the respective value of which in terms of points and coupons varies according to the occupational category of the miners. Points and coupons are reduced whenever the miner fails to work a shift during the month, and are completely suppressed when a miner is voluntarily absent for three or more shifts during any one month.

What was the effect on output of this scheme and of the other incentives introduced subsequently? It is difficult to assess it on the basis of output per man-shift alone; nor can the percent-

TABLE XXVIII. WESTERN GERMANY, BRITISH ZONE: AVERAGE GROSS DAILY OUTPUT OF HARD COAL; AVERAGE NUMBER OF SHIFTS WORKED PER DAY; OUTPUT PER MAN-SHIFT; ABSENTEEISM.

Periods and number of days worked (a)	Average gross daily output of hard coal (thousands of tons) (b)	Average number of shifts worked per day		Output per man-shift (tons)		Absenteeism (percentage) ¹ (g)
		Under-ground (c)	Under-ground and surface (d)	Under-ground (e)	Under-ground and surface (f)	
1936 : Average	384.4	226,675 ^a	310,292 ^a	2.07 ^a	1.62 ^a	—
1938 : Average	448.2					
1945 : Average						
July-Dec. . .	126.8	145,489	206,894 ^a	1.14 ^a	0.80 ^a	16.2 ^a
1946 : Average	177.8	150,499	205,051	1.19	0.86	20.8
1947 : Average	234.7	193,867	251,251	1.20	0.93	15.3
1947 :						
Jan. (26) ^a . .	211.3	168,291	216,821	1.23	0.96	17.3
Feb. (24) . .	227.3	181,538	232,338	1.24	0.97	15.1
Mar. (26) . .	233.8	188,057	241,697	1.24	0.97	13.3
Apr. (24) . .	219.0	177,112	231,642	1.18	0.91	15.0
May (24) . .	215.8	185,415	242,575	1.17	0.90	15.5
June (25) . .	218.4	186,062	243,172	1.17	0.90	16.1
July (27) ^a . .	224.3	189,663	247,213	1.19	0.91	16.5
Aug. (26) . .	237.1	195,433	252,815	1.21	0.93	17.1
Sept. (26) . .	240.9	198,108	255,337	1.22	0.94	18.0
Oct. (27) ^a . .	246.6	205,717	265,643	1.19	0.92	16.2
Nov. (24) . .	279.8	233,039	301,691 ^a	1.20	0.93	9.6
Dec. (25) . .	262.3	219,156	287,093	1.20	0.91	14.2
1948 :						
Jan. (26) ^a . .	254.8	215,179	282,463	1.18	0.90	15.0
Feb. (24) . .	267.6	220,025	289,455	1.22	0.92	14.0
Mar. (25) . .	288.1	224,328	295,067	1.18	0.93	13.5
Apr. (26) . .	268.5	217,108	290,051	1.24	0.93	15.3
May (22) . .	265.8	216,489	291,361	1.23	0.91	16.0
June (26) . .	285.1	221,929	293,786	1.28	0.97	15.3
July (27) . .	287.4	226,564	298,741	1.27	0.96	14.1
Aug. (26) . .	286.8	225,762	297,021	1.27	0.97	15.7
Sept. (26) . .	291.0	226,162	296,229	1.29	0.97	15.5

Sources : *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)*.

¹ Percentage of shifts lost (all reasons) compared with number of shifts possible. ^a 1937 average. ^b Average, 1935-1938. ^c Average for December 1945. ^d Introduction of miners' points scheme. ^e First care parcel. ^f Second care parcel. ^g From Nov. 1947, standardisation of personnel lists, resulting in an apparently larger number of shifts worked. ^h Third care parcel.

ages of absenteeism, instructive though they may be, provide an accurate picture. Therefore, to enable the Committee the better to evaluate the effect of these measures, in table XXVIII a juxtaposition has been attempted which covers the British zone, (i.e., the Ruhr and Aachen coalfields), and provides figures dealing

with the average output of hard coal brought to the surface daily, the number of shifts worked daily, output per man-shift, and the percentage of absenteeism.

For column (g), it may be necessary to point out that the largest number of shifts are lost owing to illness. For example, in May 1948, the figures for absenteeism (16 per cent.) break down as follows: illness, 6.3 per cent.; accidents, 3.10 per cent.; holidays, 3.8 per cent.; authorised absenteeism, 1.8 per cent.; unauthorised absenteeism, 1 per cent.

Over the first six months of 1947, it may be observed that not merely is there practically no improvement expressed in terms of individual output—barely 10 kg. per shift for February, an improvement which is maintained in March—but indeed a loss of 60 kg. between January and June. On the other hand, the number of shifts worked shows an increase of 10.5 per cent. underground and 12.1 per cent. underground and surface combined. This increase argues a very considerable rise in the manpower figures, higher even than the percentage figures given, since these represent a net gain to the industry, after deduction of the outflow for the period concerned, for reasons of retirement, death, serious accidents, or permanent disablement. If account is taken of the fact that this new intake consists of untrained workers, it must be supposed that the individual output of the workers already employed in January must have increased a good deal, for otherwise the average output per man-shift for June would have fallen off by more than 4.8 per cent.¹ It may, therefore, be said that the miners' points scheme has borne its fruit, from the point of view of recruitment and also of output per man-shift.

Nevertheless, these results were considered insufficient, for the British and American authorities proceeded to add a further incentive to the miners' points scheme, consisting of three "stages", the first applicable only to underground workers in hard coal mines, the second and third to all miners, including those employed in lignite mines. Here is a brief description of the system:

Stage I: A "production target" is fixed for each pit, and this target must be reached and maintained for four consecutive weeks during a period between 28 July and 15 November 1947. This production target is based on the highest level reached during

¹ Approximate calculations lead to the conclusion that the average output per man-shift for June of workers employed in January amounted to 1,035 kg. for underground and surface.

any four weeks between May 1945 and July 1947. All the underground workers in a mine which reaches the target are given, free of charge, a 40,000 calorie "Care parcel" from American army stocks.

Stage II: The full caloric value of the food rations is guaranteed, irrespective of shortages, to all mineworkers who reach, maintain and exceed the production target.

Stage III: Establishment of a special fund in dollars financed by a 5 per cent. rebate on the value of German coal exported immediately the daily output reaches 285,000 tons. This fund is intended for the purchase abroad of food or any other articles the miners may wish. They may buy such articles with the points and coupons provided by the miners' points scheme.

Six weeks after the introduction of this incentive, 130 mines out of the 158 concerned had reached the production target and all were in that position before the end of the period fixed. All the underground workers therefore received the first Care parcel as provided by stage I. The experiment was repeated twice more during periods beginning 11 October 1947 and 5 January 1948 respectively. Since the end of the third period, the system has become a quasi-permanent institution, the production levels to be achieved by each mine being raised from one period to another. It should also be noted that the distribution of the Care parcels has been extended to certain classes of surface workers.

The provisions of stage II, once the conditions were complied with, came into force on 22 September 1947, on which date the first ration guarantee card was issued. Stage III came into force each time the production level was reached, but, as a result of the favourable effects of the monetary reform which took place in June 1948, the authorities decided to abolish it after 1 September 1948.¹

It will be observed in columns (c) and (d) of table XXVIII that this policy of incentives has yielded good results in regard to recruitment. In July 1948, the total labour force figures amounted to 95 per cent. of those for 1936. The average output per man-shift tends to grow as the new manpower becomes assimilated and acquires experience. This is proved by the figures, since between January and June 1948 the average output per man-shift rose from 1,180 kg. to 1,280 kg. for underground workers, and from 900 kg.

¹ By decision of the Bipartite Board, 30 July 1948, at its 32nd meeting. (*Monthly Report of the Military Governor, U.S., July 1948, No. 37*).

to 970 kg. for underground and surface workers combined. Finally, it should be pointed out that for two days during March 1948 production reached 300,000 tons, while on 28 June it rose to 308,768 tons. It may, therefore, be said that in this connection the position is developing satisfactorily.

Wages and Social Insurance

In the wages hierarchy, the miners in former days ranked among the highest-paid workers. During the war years, other industries in which the workers were difficult to replace by labour recruited haphazard in occupied countries outstripped the coal mining industry, and when Germany surrendered, the miners were ninth in the list of industrial wages.

This position was adjusted by decision of the authorities of the four occupying Powers, when in November 1946 miners' wages were "unfrozen" and increased by 20 per cent. Once again, the miners occupy the highest place in the scale of

TABLE XXIX. WESTERN GERMANY, BRITISH ZONE: AVERAGE EARNINGS OF RUHR MINERS PER SHIFT AND PER MONTH

(Reichsmarks)

Period	Gross pay per shift				Gross monthly earnings ¹			
	Underground		Surface ²	All categories ³	Underground		Surface ²	All categories ³
	At coal face	Other work			At coal face	Other work		
1938: Monthly average	8.45	7.75	5.63	7.24	211	194	146	184
1946: Monthly average	9.42	8.30	6.41	7.64	203	178	156	172
1947: Monthly average	11.33	9.81	7.24	8.96	264	226	185	214
1948: Jan.	11.25	9.78	7.24	8.85	273	234	193	220
April	11.43	9.86	7.15	8.84	268	228	187	214
June	13.04	11.29	8.17	10.14	311	265	213	247

Source: *Monthly Statistical Bulletin of the Control Commission for Germany (British Element)* (Berlin).

¹ Inclusive of the value of the coal allotted to miners.

² Exclusive of workers in ancillary factories including young persons and women engaged in manual labour.

³ Inclusive of workers in ancillary factories.

industrial wages. Table XXIX shows the changes which have occurred since 1938 in regard to wages for the different categories of mineworkers.

With regard to social insurance, the miners before the war occupied a privileged position by comparison with workers in other industries.¹ In 1945 and 1946, however, in view of the internal financial difficulties confronting the industry, benefits in the bizon were reduced, which led to a certain amount of discontent, especially among veteran miners; this might well have had an adverse effect on output. Early in 1947, therefore, full pre-war benefits were restored.

In the Saar, all sections of social insurance have been grouped into one single body. Similar centralisation has been applied in each of the five *Länder* constituting the Soviet zone.

Denazification

In an industry such as coal mining, the importance of good relations between supervisory staff and workers is well known. After the collapse of the Nazi régime and the taking-over of the mines by the occupying Powers, these relations were somewhat strained. When denazification began, for some months a sense of insecurity prevailed among the supervisory staff. A general atmosphere of suspicion arose, and everyone felt himself under threat of denunciation, whether justified or not. Needless to state, such a situation could only hinder the recovery of the industry.

In the bizon, a special German committee, fully representative of the various elements in the industry, was set up in August 1946 to complete the work of clearing the atmosphere. The committee acquitted itself creditably of this task, and by October 1946 its work was completed. A considerable number of influential Nazis were eliminated from the industry. The committee was extremely careful to avoid unnecessary dislocation of the industry by the imposition of disproportionate or unjustifiable penalties. Since the authorities had announced that the committee's conclusions put an end, once and for all, to denazification in the mines, relations between the supervisors and the men improved, and the feeling of insecurity gradually disappeared.

Although no details are available concerning the coal mining

¹ For details concerning pensions schemes, see Chapter II, Section I.