LEAGUE OF NATIONS

Health Organisation

EUROPEAN CONFERENCE ON RURAL HYGIENE

(June 29th - July 7th, 1931)

Volume II

MINUTES

GENEVA, 1931

Price : 6/- $1.50

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[*Disrtibuted to the Council and the Members of the League.*]

Official No : **C.473. M.202.** 1931. III (Vol. II).

Geneva, July 31st, 1931.

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III. HEALTH

1931. III. 11 II

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S. D. N. 1.320 (F.) 1.160 (A.) 10/31. Imp. Artistique, Lyon.

ANNEXES. — *Documents and Reports submitted to the European Conference on Rural Hygiene :*

FOREWORD.

The Report of the proceedings of the European Conference on Rural Hygiene is contained in two volumes :

Volume I is devoted to the *Recommendations* made by the Conference ;

Volume II contains the *Minutes*.

The present volume (Minutes) consists of an introductory chapter on the preparation for and constitution of the Conference, followed by a series of chapters containing the Minutes of the plenary meetings of the Conference and of the Committee meetings.

Annexes concerning the reports and documents distributed to the Conference appear at the end of this volume.

CHAPTER I. — PREPARATION FOR AND CONSTITUTION OF THE CONFERENCE.

Volume I (Chapter I) gives a brief history of this question. Preparations for the Conference were made by the Preparatory Committee.

This technical work is summarised in the printed report entitled : " Principles governing the Organisation of Medical Assistance, the Public Health Services and Sanitation in Rural Districts " (document C.H.1045). This report served as a guide to the Conference. The Preparatory Committee's technical recommendations are reproduced as Annex 1, so as to make intelligible the reading of the Minutes of the Committees.

The *agenda* of the Conference included three chief questions :

(1) Guiding principles and suitable methods for ensuring effective *medical assistance* in rural districts ;

(2) The most effective methods of organising the *health services* in rural districts ;

(3) The *sanitation* of rural districts : the most effective and economical methods.

The first volume (Chapter I) shows how the Preparatory Committee sub-divided these three great problems and describes the methods adopted in studying them.

The Preparatory Committee also considered the preparation for the Conference from the administrative standpoint and drew up Rules of Procedure.[1]

The Rules of Procedure of the Assembly were adopted for the Conference, except in regard to certain provisions suggested by the Preparatory Committee (document C.H.1037). To facilitate the discussion, it was decided that consideration of the three items on the agenda should be divided between at least three committees. At their request, representatives of private international associations concerned in the promotion of rural health were allowed to address the committees.

Seven Rapporteurs were appointed to report in the following subjects :

1. Medical Assistance (Professor Jacques PARISOT, Professor of Hygiene and Preventive Medicine at the Faculty of Medicine, Nancy) ;

2. Organisation of Public Health Services (Professor STAMPAR, Inspector-General of Health, Belgrade) ;

3. Co-operation of Health Insurance Institutions as regards (1) and (2) (M. UNGER, Director of the Union of Rural Health Insurance Funds of the Reich) ;

4. Disposal of Sewage (M. BÜRGER, Prussian National Institute for the Hygiene of Water, the Soil, etc., Berlin) ;

5. Water Supplies (M. KRUL, Director of the National Bureau for Water Supply, The Hague).

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[1] The complete text of the proposals made by the Preparatory Committee is given in documents C.L.301.1930 (Annex) ; C.H.952, C.H.1037 and C.H.1045.

6. Housing Problem (Mr. H. R. HOOPER, Engineer, Chippenham) ;

7. Land Improvements (" Bonifications ") (M. BUTTINI, Technical Adviser to the Ministry of Labour, Rome).

It was decided that the members of the Preparatory Committee should hold themselves at the disposal of the Conference.[1]

LIST OF DELEGATIONS AND OBSERVERS.

President :

Professor Gustavo PITTALUGA, Director of the National School of Hygiene, Madrid.

Austria :

M. Karl LERCH, Representative of the *Tiroler Landeskulturrat*, Innsbruck.

Belgium :

M. Julien VAN DER VAEREN, Secretary-General, Ministry of Agriculture, and Member of the Health Council, Brussells.
Dr. Jacques SPAAS, Government Health Inspector, Hasselt.
Dr. Jean-Baptiste Hubert GULDENTOPS, Government Health Inspector, Vilvorde.

Czechoslovakia :

His Excellency, Mr. Z. FIERLINGER, Permanent Delegate to the League of Nations, Geneva.
Dr. H. PELC, Chief of Social Hygiene Division of the State Institute of Hygiene, Prague.
M. J. LANGER, Professor of Pediatrics at the German Medical Faculty, Prague.
Dr. R. KOLAR, Head of Division, Ministry of Agriculture, Prague.
M. M. ZELENKA, Director of the Institute for the Construction of Houses for Agricultural Workers, Prague.

Denmark :

M. Soren SORENSEN, Agricultural Councillor, Danish Legation, London.
Dr. Abraham METZ, County Medical Officer, Holbaek.

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[1] The members of this Committee were :
Professor G. PITTALUGA, *President*, Director of the School of Hygiene, Madrid ;
Dr. H. CARRIÈRE, Director of the Federal Public Health Service, Berne ;
Dr. A. LUTRARIO, Former Director-General of Public Health, Ministry of the Interior, Rome ;
Professor J. PARISOT, Director of the Institute of Hygiene, Nancy ;
Dr. A. STAMPAR, former Inspector-General of Health, Belgrade ;
Dr. CHODZKO, Director of the School of Public Health, Warsaw ;
Dr. Th. MADSEN, Director of the State Serological Institute, Copenhagen ;
M. M. HESELTINE, Assistant Secretary, British Ministry of Health, London ;
Dr. C. HAMEL, President of the *Reichsgesundheitsamt*, Berlin ;
Professor J. G. FITZGERALD, Director of the School of Hygiene and Connaught's Laboratories, Toronto ;
Professor V. PUNTONI, Representative of the International Institute of Agriculture, Rome ;
M. A. TIXIER, Chief of the Section of Social Insurance, International Labour Office.

Finland :

M. Evald GYLLENBÖGEL, Chargé d'Affaires p. i. of Finland at Berne and Permanent Delegate to the League of Nations, Geneva.
M. Paul HJELK, Secretary of Legation, Geneva.

France :

Professor Léon BERNARD *President of the Conseil supérieur d'Hygiène publique* of France, Paris.
M. Jules GAUTIER, *Président de Section au Conseil d'Etat*, Paris.
M. Maurice VIGNEROT, Chief Engineer of Rural Engineering, Ministry of Agriculture, Paris.
Professor Jacques PARISOT, Professor of Hygiene and Preventive Medicine at the University of Nancy.
M. Marius SARRAZ-BOURNET, Associate Inspector-General of the Administrative Services, Ministry of the Interior, Paris.
M. Georges DABAT, Rural Engineer, Chief Assistant, Ministry of Agriculture, Paris.
M. Martial BONIS-CHARANCLE, Director of the Committee *Hygiène et Eau*, Paris.
M. Michel AUGÉ-LARIBE, Secretary-General of the National Federation of Rural Hygiene Associations, Paris.
M. Samuel DE LESTAPIS, General Director of the French Society of Agriculturists, Paris.
M. Paul VIMEUX, General Director of the National Union of Agricultural Mutual Benefit Societies, Paris.

Germany :

Dr. C. HAMEL, President of the *Reichsgesundheitsamt*, Berlin.
Professor Friedrich KONRICH, Member of the *Reichsgesundheitsamt*, Professor of Hygiene at the University of Berlin.
Dr. Walther MIEMIETZ, Vice-President of the Medical Association, Province of Brandebourg-Wriezen (Delegate of the German Association of Medical Practitioners), Wriezen.
Dr. Gustav SEIFFERT, Counsellor to the Bavarian Ministry of the Interior, Munich.
M. Karl UNGER, Director of the *Reichsverband der deutschen Landkrankenkassen*, Perleberg, Potsdam.
Dr. Bernhard BÜRGER, Director of the State Institute for the Hygiene of Water, Soil and Air, Berlin.

Great Britain :

M. Herbert Ross HOOPER, Consulting Civil Engineer, Chippenham.
Dr. Alexander SHEARER, Medical Officer, Department of Health for Scotland, Edinburgh.
Dr. James FERGUSON, County Medical Officer of Health, Surrey.

Greece :

M. Alexander PALLIS, Secretary-General of the Ministry of Health, Athens.
M. Daniel E. WRIGHT, Sanitary Engineer, School of Hygiene, Athens.
Dr. Norman WHITE, Director of the School of Hygiene, Athens.

Hungary :

His Excellency Mr. Jean PELENYI, Resident Minister accredited to the League of Nations, Head of the Permanent Delegation, Geneva.
Dr. Bela JOHAN, Director of the State Institute of Hygiene, Budapest.
Dr. Nicolas SIEGESCU, Secretary in the Hungarian Ministry of Agriculture, Budapest.

Irish Free State :

Dr. Winslow Sterling BERRY, Medical Inspector, Department of Local Government and Public Health, Dublin.

Italy :

His Excellency Mr. Giuseppe DE MICHELIS, Senator, Ambassador, Delegate to the Permanent Committee of the International Institute of Agriculture, Rome, President of Delegation.
Dr. A. LUTRARIO, former Director-General of Public Health, Ministry of the Interior, Rome.
M. Antonio LABRANCA, Inspector-General, Head of the General Public Health Division, Public Health Department, Ministry of the Interior, Rome, Technical Delegate.
Dr. Dino RIO, Head of the Medical Assistance Section, Public Health Department, Ministry of the Interior, Rome, Technical Adviser.
M. Giuseppe ZAMBELLI, Chief Inspector of Civil Engineering, Rome, Technical Adviser.
M. Casimiro BUTTINI, Engineer of the Civil Engineering Department, Rome, Technical Adviser.
M. Roberto ROBERTI, Secretary-General of the National Federation of Agricultural Workers' Health Insurance Funds, Rome, Technical Adviser.
M. Guido GIORGI, Delegate of the Ministry of Corporations, Rome, Technical Adviser.
M. Constantino GORINI, Professor at the University of Milan, Technical Adviser.
M. Pietro SOLARI, Consular Attaché, Ministry of Foreign Affairs, Rome, Secretary of Delegation.

Latvia :

His Excellency Mr. Jules FELDMANS, Minister Plenipotentiary, Permanent Delegate accredited to the League of Nations, Geneva.

Luxemburg :

M. Charles VERMAIRE, Consul of Luxemburg at Geneva.

Netherlands :

Dr. J. M. N. JITTA, President of the Health Council of the Netherlands, The Hague, Head of Delegation.
Dr. Jan Harm TUNTLER, Inspector of Public Health, Groningen.
M. E. C. VAN LEERSUM, Professor of Medicine, Amsterdam.
M. Wilhelms F. J. M. KRUL, Director of the National Bureau for Water Supply, The Hague.
M. Johan BEIJERMAN, Director of the Central Office of the Green Cross and Secretary-General of the Netherlands Green Cross Association, Utrecht.

Norway :

M. P. H. Birkeland, Chargé d'Affaires, Norwegian Legation, Berne.

Poland :

Dr. W. Chodzko, Director of the School of Hygiene, Warsaw, Chief of Delegation.
Dr. M. Kacprzak, Chief of the Medical Statistical Section, School of Hygiene, Warsaw.
Dr. S. Tubiasz, Counsellor to the Ministry of the Interior, Warsaw.

Portugal :

M. A. Ferraz de Andrade, First Secretary of Legation, Head of the Portuguese Delegation to the League of Nations, Geneva.

Roumania :

M. M. Enesco, General Director of the Ministry of Labour, Bucarest.
M. P. Vasile, Inspector-General, Ministry of Health and Labour, Bucarest.
M. C. Andronesco, Professor of Hygiene, Post-graduate Agricultural Academy, Ministry of Agriculture, Bucarest.

Spain :

Dr. Sadi de Buen, Inspector-General of Health Services, Madrid, Head of the Delegation.
Dr. Laurenzo G. Tornel, Vice-President of the General Council of Spanish Medical Societies, Barcelona.
Dr. A. Canal-Comas, Delegate of the Spanish Medical Association, Municipal Inspector of Health, Granollers (Barcelona).
Professor Lazzaro Urra, Professor of Sanitary Engineering at the School of Hygiene, Madrid.
M. Gutierrez de Arroyo, Rural Engineer, Delegate of the Hydrographical Society of the Ebro.
Dr. Innocencio Jimenez, Professor at the University of Saragosse, Delegate of the Institute of Social Welfare, Madrid.
M. Enrique Santiago, Delegate of the General Workers' Association, Ministry of Labour, Madrid.
M. G. Arroyo, Representative of the Labour Ministry, Madrid.
M. J. Coll Creixell, Ministry of Labour, Barcelona, Representative of Rural Co-operatives.
M. R. Maycas de Meer, Ministry of Labour, Madrid, Delegate of Employers.

Sweden :

M. N. H. Wranne, County Medical Officer, Mariestad.

Switzerland :

Dr. H. Carrière, Director of the Federal Public Health Service, Berne.
M. R. Rubattel, Chief of Section of the Division of Agriculture, Federal Department of Public Economy, Berne.

Turkey :

Dr. A. ISMAIL, Director-General of Health, Ankara.

Yugoslavia :

Dr. I. ANDRITCH, First Secretary of the Permanent Delegation, Geneva (substitute for the Head of the Delegation, Mr. Choumenkovitch).
Dr. M. RANKOV, Director of the Public Health Institute, Skoplje.
Dr. I. PIRC, Director of the Public Health Institute, Ljubljana.
M. M. PETRIK, Chief of the Division of Sanitary Engineering, School of Public Health, Zagreb.
M. K. SCHNEIDER, Head of the Union of Sanitary Co-operatives, Belgrade.
M. L. PROHASKA, Head of the Department of Agriculture, Belgrade.

OBSERVERS.

Bolivia :

Dr. BILBAO, General Director of Health, La Paz.

China :

M. C. N. LOU, Secretary of the Permanent Office of the Chinese Delegation to the League of Nations, Geneva.

Colombia :

Dr. L. F. CALDERON, Paris.

Cuba :

M. G. DE BLANCK, Permanent Delegate of Cuba to the League of Nations, Geneva.

India :

M. B. M. ROY, Assistant Malaria Officer to the Government of the United Provinces, Lucknor.

Japan :

Dr. M. TSURUMI, Member of the Health Committee of the League of Nations.
Professor MIYAJIMA, Professor of Preventive Medicine, Kitasato Institute, Tokio.
Dr. HAMANO.

Mexico :

Dr. N. CAMARHA-VALES, Consulate of Mexico, Vienna.

United States of America :

Dr. J. G. TOWNSEND, United States Public Health Service, American Consulate-General, Naples.

International Institute of Agriculture, Rome :

Professor V. PUNTONI, Professor of Bacteriology at the University of Rome.
M. F. BILBAO, Chief Agricultural Engineer, Delegate of the International Institute of Agriculture, Rome.

League of Red Cross Societies :

M. F. R. HUMBERT, Director of the Health Section of the League of Red Cross Societies, Paris.

International Association of Medical Officers :

Dr. DECOURT, Secretary-General, Paris.

The Health Committee of the League of Nations appointed its President, Dr. MADSEN, as observer.

The International Labour Office was represented by M. TIXIER, Chief of the Section of Social Insurance, assisted by his colleagues, M. ABRAMSON, Dr. PRYLL, Dr. STEIN and by M. GORNI, Member of the Agricultural Section.

Dr. L. RAJCHMAN, Medical Director of the Health Section of the League of Nations, assisted by Dr. F. G. BOUDREAU, member of the Health Section, acted as Secretary of the Conference.

CHAPTER II. — MINUTES OF THE PLENARY MEETINGS.

FIRST MEETING (JUNE 29TH, 4 P.M.)

Opening speeches by M. Avenol, Deputy Secretary-General of the League of Nations, and Professor Pittaluga, President of the Conference. — Constitution of the Bureau. — Speech by Professor Léon Bernard, Vice-President. — Appointment of the Committee on Credentials. — Constitution of Three Committees. — Rules of Procedure of the Conference.

President : Professor G. PITTALUGA

Welcome to Members of the Conference.

M. AVENOL (Deputy Secretary-General) spoke as follows :

Mr. President and Gentlemen, — It is a pleasure to be able to welcome the numerous delegates from various European countries, as well as the observers nominated by non-European countries, met to study the immense problem of rural hygiene under the three aspects of medical assistance, the organisation of health services and the sanitation of rural districts.

The Health Organisation of the League of Nations, under whose auspices you meet, has already had occasion to deal with rural hygiene problems ; but this, if I am not mistaken, is the first international Conference convened to discuss such questions, and this meeting, due to the initiative of the Spanish Government, seems to me a further proof of the League's interest in agricultural life and economy.

Why, in the case of this international Conference, has the League of Nations restricted its scope to Europe ? I believe it is due to the technical motives which apparently swayed those responsible for the Conference.

Men of your experience do not need to be told that no public health organisation can possibly afford to ignore two primary factors — social customs and the organisation of public administration ; and it is my belief that, despite the differences of language and the divisions due to national frontiers, you will elicit and keep before you throughout your proceedings, the fact of the essential unity of Europe — in your case, agricultural Europe.

Modes of life, geographers say, cannot be segregated into water-tight compartments by frontiers, and, whether they represent the closely populated towns of the Mediterranean or the pastoral population of the Alps, Carpathians and Balkans, or the scattered villagers or big land-owners of the plains, there will always be a number of delegations capable of amalgamating their experiences and co-operating in the search for practical improvements in rural hygiene and housing.

Nor will any of you be perplexed by the form or the mode of action of public authorities which can all be reduced to a few standard types, differing only very slightly from one another. Your task, gentlemen, will therefore be correspondingly simplified. You have not met to draw up international conventions, but merely to co-operate with

one another and to find, in the common fund of collective experience you are about to create, the strength needed to speed up progress in your own countries. That will be a very valuable international achievement.

I referred a moment ago to the unity of European life which is at the basis of our Conference ; but this unity is not perfect, it contains serious inequalities. The conditions of rural life have not progressed to the same degree everywhere ; some countries are a hundred years behind, and the level of economic life is by no means uniform.

Nothing, perhaps, can better adjust the inequalities in European rural conditions than the profound changes which you will introduce into everyday life — better ventilation, better lighting, greater comfort and better health, larger requirements, and thence more extensive economic relations, narrower margins between poverty and wealth among peasant populations ; such, gentlemen, may be the result of your deliberations and recommendations. I am confident that your work will be an effective contribution to enhancing European stability, and that you will identify yourselves closely with the League's efforts to consolidate peace.

The President's Opening Speech.

The PRESIDENT spoke as follows :

May I express the unanimous feeling of all the delegates and members of the Conference and thank you for the noble sentiments that you have just voiced in the name of the great institution which has convened our Conference here ?

Ladies and gentlemen, I do not think that my only task should be to repeat the usual formula and merely welcome you here. We are assembled in this place in order to accomplish a common task. Our personal endeavour becomes insignificant in comparison with the great object which has brought us together. It is our intention not to separate until this first Conference on Rural Hygiene, limited though it be to European countries, has given the whole world, and particularly the Governments and their technical or administrative organisations, concrete guidance on certain points which will enable them to arrive at an actual change in the present state of things so far as concerns all matters connected with the hygiene of the rural population.

Let us therefore consider more closely what is, in fact, the task of our Conference. Is it a task of a technical character, of a purely scientific character, or rather of a social and political nature ?

It is only too obvious that these various forms of activity of the human spirit, these different ways of dealing with facts and directing our efforts in order to adapt the external reality and our environment to our aspirations and our ideal, are constantly approaching each other. It is, indeed, too evident that to-day it is impossible for us to contemplate a task such as ours unless the technique and the scientific data which are at the basis of the culture and activities of all of us are directed or turned towards aims of a social and political nature ; or, if you like, unless questions of a social and political character exercise an influence over our thoughts, even when we are endeavouring to solve problems which we regard as exclusively technical or scientific.

I would even like to remind you that the *sine qua non* for actually carrying out part of our aspirations in the field of public health consists in never losing sight of the reciprocal influence and limitations of these two different forms of our mental activities — on the one side, scientific and technical knowledge and activities ; on the other side, knowledge and activities of a social and political character.

If we closely examine the history of the successive changes and improvements which have been brought about in the life of mankind during the last fifty years, we see that the

development of the towns and the attempts of health experts to solve the greater part of the problems connected therewith have been primarily influenced by political and social laws, and have been the logical consequence of the predominance of the working-class factor and of the phenomenon of industrial life during this period, under the pressure of the requirements of the mass of mankind in the neighbourhood of the great industrial centres, and later under pressure from, or as a result of, the needs of the working-class communities and even of the political parties which have represented them. I would remind you that we largely owe the solution of the problems of urban hygiene to the simultaneous existence of these factors of a social character and the improvement of sanitary technique on the basis of biological science. Urban hygiene, at least from the theoretical point of view, has already been given almost all that science and technique can put at the disposal of administrators and organisers for the purpose of solving the great problems connected therewith.

Let us, on the other hand, consider the situation from the point of view of rural hygiene. During the eighteenth century, the myth of the happiness of rural life was glorified. The joys of village life, the quiet existence in the country, and the advantages of agricultural work were set forth as an ideal situation from the point of view of mind and body. This ideal picture, conjured up by means of traditions dear to those who remember Virgil from their college days, has not stood the criticism of a more positive examination. Unfortunately, the real facts are quite different.

We are now in a position to assert that, if the rural population had not the great natural health-producing factors (the light of the sun and fresh air), their conditions of life, in so far as these depend on domestic or social factors, would be worse and lead to conditions of an organic character involving much more hardship than the conditions of the town populations.

In most European countries, almost all problems connected with the living conditions of the agricultural populations are still unsolved. There is always congestion. Direct contact between mankind and animals in rural life gives frequent occasion for infection and dirt. The bodies of children and of adults are constantly liable to be contaminated by the earth, by utensils and by work.

As always, the great stages of the history of the world are marked by sudden revelations which, at a given moment, display realities which were concealed by the illusions derived from traditions and myths.

It was the great war which brought out the sad and painful realities of peasant life and the serious hygienic requirements of the rural population ; since the great war brutally emphasised, from a demographical point of view, the primary importance of the rural population, and, through statistical data relating to the mortality and morbidity of certain infectious diseases, obliged the Governments to realise the great danger which arises if one does not give all the attention that they deserve to the problems of public health in agricultural and rural populations.

We also owe the demonstration of the enormous advantages and positive results which we may achieve by dealing seriously with these problems to the work carried out after the war by Governments and agricultural organisations in certain countries of Europe which were amongst those which suffered most from the storm.

It was necessary to remedy this state of things ; we are going to make an effort ; we are going to contribute to the solution of these problems.

When on this point, I need hardly remind you of the words of Lessing : " Men should not be judged by their success, but by the effort that they make in order to succeed ". This should be our motto ; we are met here to make that effort. We cannot yet say whether we shall succeed in our difficult and complicated task. Nevertheless, we are going to set to work, and I am sure we all hope that the results of our labours will be accepted by the

Governments that you represent, and that they will enact effective legislation based on what we are doing here.

The Spanish Government — that is to say, the Government of a nation whose agricultural life is extremely developed, being much struck by the *de facto* situation that I have just briefly outlined before you, was desirous of defining the principles and methods according to which technical steps should be taken to ameliorate the life of the agricultural worker.

That Government realised that a rational programme should form the basis of the reconstruction of rural districts in accordance with the conceptions of modern hygiene ; and that, in a harmonious programme of this kind, sanitary conditions should be given their full importance in the same manner as financial and economic considerations, means of transport and means of communication, public education and popular instruction.

This Conference has met as the result of the effort to remodel her internal life undertaken by Spain and of the proposal which the Spanish Government submitted to the League of Nations and which the Council accepted. I am of opinion that this Conference should study the problem of rural hygiene without, however, omitting to take account of its relations with the factors which I have just enumerated and which have a very great influence on the health of the peoples of the world.

Other bodies and other Commissions belonging either to the League of Nations or to the two great international organisations which are represented here are dealing with these other factors, the study of which has been subdivided under various heads — agricultural credits, wheat markets, education, health insurance, improvement of communications and transport, etc.

Such an international technical co-operation cannot but be to the benefit of the rural population and, indeed, to the benefit of all the populations of Europe and of the whole world.

Future historians will note as a characteristic of our epoch this evolution towards a closer and closer organisation of international relations. We are living in a period in which it is recognised for the first time that a nation cannot live in complete isolation outside the community formed by the worldwide body of nations.

I have certain reasons to think that health experts will not lag behind this movement and that the results of this Conference, when utilised by certain Governments, will not only improve health conditions among rural populations but will also serve as an example to show once more the fruitful results of an international collaboration in a technical sphere.

* * *

Let us remember that we are not going to lay down rules and principles with a view to stabilising an existing state of things, but that we are going to change the existing state of things in so far as we are able to do so and to promote progress. We are going to endeavour to lay down a programme calculated to enable the various countries to do better than the best that has been done before. We are faced by a high death rate, by a very large morbidity, by the absence of sanitary organisation and by the fact that country people do not understand rural hygiene.

It is impossible to provide for every detail of a programme which can be applied to the rural districts of all countries. Conditions differ too much as between one country and another, and even in different parts of the same country.

What we should do and what we shall do is to lay down the general principles which, in accordance with modern conceptions of hygiene, should form the basis of health organisation and of work for the promotion of public health in all countries.

We do not pretend to be able to solve every problem of rural hygiene ; there are some of them which will require further study and research.

It is very fortunate that the Health Organisation of the League of Nations constitutes a permanent organisation, thanks to which the health administrations of Europe — and of the whole world — are enabled to continue the study of these questions until they are ripe for a solution.

Some of these problems are mentioned in the report of the Preparatory Committee, which is before you. I should like to draw your attention both to these problems and to the report itself, which I am sure will assist you considerably in your work at the Conference. This report puts a lofty ideal before you. I am sure, however, that your sole desire is to seek an ideal even more lofty. The report does not confine itself to defining this high ideal, it also takes account of the conditions, both economic and practical, which we must always bear in mind when carrying out our schemes in daily life, particularly during a period of crisis. The Preparatory Committee is firmly convinced that, in most countries, the application of the principles set forth in this report will not increase the cost of work for promoting public health, but, on the contrary, make it more efficient. I allude here rather to methods of organisation than to strictly sanitary work. It is obvious that improvement of water supply, better housing, and increase in the number of hospitals in rural districts, will lead to an increase in the amount of money that is spent on promoting health. This, however, is no longer true when we consider the organisation of health services in itself. Experience has always shown that, for the same expenditure, the work is better done when you substitute a small number of highly qualified officials who give all their time to their work for a large number of imperfectly qualified persons who only do this work during part of their time.

Furthermore, you will find all through this report the recognition of the principle that the country dweller should be helped in such a way as to make him able to help himself. Explain to him, for instance, how desirable it is to have a healthy house, and lend him money at a low rate of interest and he will improve his own housing conditions. Make him understand the value of good medical advice, post an adequate number of efficient doctors in rural districts, and, whenever he is at all ill, he will call in the doctor. The value of education, of encouragement, of propaganda and of incentive is shown on almost every page of this report. The success of our health work in every country depends on popular education in health matters. No one can deny this axiom.

You doubtless desire to know how this report was prepared. The Council of the League of Nations entrusted the task of preparing the documents for the Conference to a Preparatory Committee composed of twelve experts belonging to ten different countries. Some of these experts are directors of their national health administrations, others are in charge of important health institutions, and one of them, Dr. Madsen, is the President of the Health Committee of the League of Nations. The Preparatory Committee prepared an agenda for the Conference, which was adopted by the Council. It also suggested the subjects that might be included under each head of the agenda, since the Conference was to deal with the study of the more important aspects of rural hygiene. When the reports on each of the items of the agenda were being prepared, the Preparatory Committee decided to call in experts. It was of opinion that it would be most desirable to lay down on a basis suitable for international acceptance the guiding principles to be followed in respect of medical assistance, health services, and sanitation in rural districts. For this reason, the Preparatory Committee asked the Health Organisation of the League of Nations to convene groups of experts with a view to preparing reports on the three questions on the agenda.

The experts who prepared the report on medical assistance met at Geneva in May. Their chairman was Dr. Konrich, of the Reichsgesundheitsamt of Berlin. There were nine experts present representing health services, public relief organisations, the medical profession, and rural health insurance institutions. After a careful study and a detailed

discussion, the experts prepared a report which was unanimously adopted and which you will find in the memorandum of the Preparatory Committee. It deals with staff, institutions and methods ; it shows the value of health insurance institutions in connection with free medical assistance ; it fixes the responsibility of the various organisations in respect of medical assistance and it quotes examples which fully illustrate the conclusions at which the experts arrived. This report will be the practical basis on which you will discuss medical assistance. It may be extended and amplified, but I am sure you will not disagree with its conclusions, which I trust you will regard as being the documentary basis for your discussions.

The report on the organisation of health services (second item on the agenda) was prepared by one of the Committees of the Health Organisation of the League of Nations, the Committee on Rural Health Centres, under the chairmanship of Professor Chodzko, member of the Health Committee and Director of the National School of Hygiene at Warsaw. This Committee held two meetings, one at Budapest and one at Geneva. Seventeen experts collaborated in the work of the Committee, and I am sure that, after studying its reports, the Conference will agree that the Committee has done its work well. For the first time, the guiding principles of modern health services in rural districts have been clearly laid down. This is an extremely difficult question, as in many countries the organisation of the health services is based on the general system of health administration and professional assistance, which is rooted in the traditions, customs and mentality of the nations concerned. Contrary to what might have been expected, instead of finding themselves divided in their opinions, the experts succeeded in laying down the principles applicable in all countries, the realisation of which will certainly improve the results achieved in the sphere of health. I am sure the Conference will agree that this is the most difficult question with which we have to deal, and I will ask the delegates to weigh most carefully the views of the experts who have done such arduous work on such a difficult question.

Finally, a group of experts on sanitation in rural districts met at Geneva under the chairmanship of M. Vignerot, Chief of Rural Engineering in France, to prepare a report on the disposal of sewage, water supply, housing and bonifications. This meeting was attended by thirteen experts from twelve different countries, and you have the results of their work before you in the report of the Preparatory Committee. They call for certain comments. Based as they are on recent experience in the most advanced European countries in connection with one or more aspects of sanitation in rural districts, they lay down the principles which might be applied by any Government or administration desirous of obtaining good results economically. We can scarcely overestimate the value of some of these principles from the point of view of human welfare in rural districts.

A good supply of drinking-water and good housing, or, in certain circumstances, the complete system of sanitation of the soil, which is called in Italy *bonifica*, will, if rendered general in the rural districts, make it possible to improve the standard of life and mitigate the ravages of disease.

After examining these various reports, the Preparatory Committee unanimously decided to adopt them and submit them to the Conference. For this reason, they are included in the printed document prepared by the Committee for your use. The principles and conclusions contained in this document represent the work of more than fifty experts in the various branches of hygiene, and the document is based on the study of some sixty reports on health and sanitary conditions in various European countries. However, these documents call for certain explanations and comments, and the Preparatory Committee therefore decided to ask the Rapporteurs to explain in rather more detail the conclusions of the experts.

In submitting these proposals, the Preparatory Committee did not desire to restrict

in any way the liberty of action of the members of the Conference. I beg to propose, on behalf of the Preparatory Committee, that, after taking note of its report, hearing the Rapporteurs and holding a general discussion in plenary meeting, the Conference should refer the detailed examination of each question on the agenda to a special committee or section.

Professor Parisot, of the University of Nancy, will be Rapporteur for medical assistance, the first item on the agenda ; and Dr. Stampar, of Yugoslavia, for the organisation of health services, the second item on the agenda. As the work of the social insurance organisations is connected with both these points, Dr. Karl Unger, Director of the National Union of Rural Health Insurance Institutions of Germany, has kindly consented to report to you on this aspect of the question. Professor Bürger, of the Prussian State Institute for the Hygiene of Water, Soil and Air, will discuss the conclusions of the experts on the disposal of sewage. M. J. M. Krul, Director of the National Bureau for Water Supply at The Hague, will report on water supply ; and Mr. Ross Hooper, of the British Ministry of Health, will speak on housing, and Dr. L. Bonamico on bonifications.

For obvious reasons, the examination of rural conditions and the technical means of improving them has, for the moment, been confined to Europe. In spite of the considerable differences which exist even between the various countries of Europe, and will always exist in view of climatic, agricultural and ethnological diversity, etc., it is safe to say that the type of agricultural life in the various countries can be made the subject of a general critical examination such as will allow us to lay down general rules and indications. It was difficult for the moment to apply this criterion to the other continents in which rural conditions are still widely different from those which characterise Western civilisation, with all its drawbacks and defects.

I am happy, nevertheless, to be able to say that many other countries in America, the Far East, Africa, etc., have sent qualified health experts and administrators who propose to follow the work of our Conference in the capacity of observers. This doubles our responsibility, as we shall not only have to give clear expression to the conclusions at which we arrive, for the benefit of our administrative departments and Governments, but must also bear in mind that the interest and attention of the whole world are concentrated on us and that our efforts are expected to yield the broad outlines of a programme capable of being carried out in the future, even in the countries farthest removed from us.

Ladies and gentlemen, the great honour done me by the Council of the League of Nations in appointing me President of this European Conference on Rural Hygiene has placed a heavy responsibility on my shoulders, of which I am sure I shall be able to acquit myself with your wise help.

I should like to point out that certain countries of Europe have reached a really high level in the matter of rural hygiene and agricultural conditions. But we must not aim too high. We must not listen to counsels of perfection during this Conference. I would, however, like to express the hope that the proposal made by the Government of that great agricultural country, Spain, the scope of which has been appreciated and extended by the Council of the League of Nations, which has identified itself with it and organised this Conference, will be eminently successful, under the inspiration of the historic industriousness and intense vitality of the admirable little country which is giving us hospitality and which supplies a microcosm of all the memories, traditions and hopes of our civilisation.

Vice-Presidents of the Conference.

The PRESIDENT, speaking on behalf of the Preparatory Committee, asked the Conference to proceed with the appointment of Vice-Presidents, and submitted the following names :

Professor KONRICH, of the *Reichsgesundheitsamt* ;

Professor Léon BERNARD, President of the Superior Health Council of France ;

Senator DE MICHELIS, Italian Government Delegate on the Permanent Committee of the International Institute of Agriculture ;

Dr. CHODZKO, Director of the School of Hygiene, Warsaw ;

Dr. CARRIÈRE, Director of the Swiss Federal Health Service ;

His Excellency M. FIERLINGER, Permanent Delegate of Czechoslovakia accredited to the League of Nations.

M. DE MICHELIS thanked the President, but asked to be replaced by Dr. Lutrario, member of the Health Committee, who was, he thought, better qualified to collaborate with the other Vice-Presidents.

The PRESIDENT said that, if the Conference agreed, the request would be complied with.

The President's proposal, amended as requested by M. de Michelis, was approved.

Professor Léon BERNARD said all the delegates proposed by the President were glad to accept the offices entrusted to them, particularly as under Professor Pittaluga's effective chairmanship their task would undoubtedly be a light one. It was nevertheless a great honour, and he felt he was speaking for all his colleagues in thanking the President.

They were equally grateful to the President for the valuable observations he had made regarding the purpose of the Conference. Among all the meetings held on the initiative or under the auspices of the League, none could better serve the moral interests entrusted to it and none was more in consonance with the special aim of the Health Organisation — to help to increase the well-being of the nations ; that explained the appropriateness of a member of the Health Committee of the League expressing his Government's desire that the present Conference should be convened. He was referring, of course, to their President, Professor Pittaluga, and it was a great pleasure to him, speaking on behalf of all his colleagues, to congratulate and thank the Spanish Government and the President — who was doubtless responsible for his Government's proposal — for the action they had taken, action in which they were all proud to participate. From his personal knowledge of the distinguished services the President had already rendered to the Health Organisation, Professor Bernard felt convinced that their proceedings would be conducted so as to achieve the maximum that could be expected in this particular connection. The President's services to his own country were equally distinguished and he was destined to render even more valuable services in the future now opening up before Spain.

In conclusion, he assured the President that he could reckon on their wholehearted support.

The PRESIDENT said he was deeply moved by Professor Bernard's speech. With their help, he hoped to be able to discharge the duties entrusted to him in the same spirit of devotion to a great ideal which inspired all the other members, and he was confident that the work would be accomplished without unduly swerving from their objective.

Appointment of a Credentials Committee.

The PRESIDENT asked the members to appoint a Credentials Committee, and, on behalf of the Preparatory Committee, suggested that the following should be appointed :

Dr. JITTA, President of the Health Council of the Netherlands (Chairman);

M. GYLLENBOGEL, Permanent Delegate of Finland accredited to the League of Nations ;

M. SORENSEN, Director of the Municipal Water Service, Copenhagen.

Agreed.

Organisation of the Conference.

CONSTITUTION OF THREE COMMITTEES.

The PRESIDENT said that, after a general discussion lasting perhaps two or three days, the Conference would no doubt split up into three Committees, each of which would deal with one of the points on the agenda — namely :

Medical assistance in rural districts ;

Health services in rural districts ;

The sanitation of rural districts.

Each delegation would appoint its representative or representatives to each of these Committees, taking into account the desire of the various members to contribute to the solution of these three questions, and their special qualifications.

Each of the Committees would appoint its own chairman. For the moment, the President ventured to nominate three members of the Bureau, who would preside provisionally over the Committees — namely :

Professor Léon BERNARD, for the First Committee ;

Dr. CHODZKO, for the Second Committee ;

Dr. CARRIÈRE, for the Third Committee.

The Committees would also have to set up their respective bureaux and decide on their rules and other questions of procedure.

RULES OF PROCEDURE OF THE CONFERENCE.

The PRESIDENT said that the Preparatory Committee, in accordance with the precedents mentioned in the opinion obtained from the Legal Section of the Secretariat, decided to propose that the Conference should apply, in general, the Rules of Procedure of the Assembly of the League of Nations, with the exception of the provisions mentioned below.

The majority required for decisions should consist of at least two-thirds of the votes of the delegations present at the time of voting, each delegation having one vote.

The President of the Conference, the Vice-Presidents and the Chairmen of the three Committees would form the bureau of the Conference.

The bureau of the Conference could admit to the meetings of the Committees the representatives of private international associations concerned with rural health organisation who applied for admission. These representatives could, on their application, be heard by the Committees, subject to the consent of the Chairman of the Committee. Three of these international associations had already made an application in this sense, and the Preparatory Committee considered that it was voicing the opinion of the Conference in inviting them to take part in the meetings of the Committees. These associations were the League of Red Cross Societies, the International Professional Association of Medical Practitioners and the Conference of National Unions of Mutual Benefit Societies and Health Insurance Funds.

Apart from the above questions, for which the Committee considered it advisable to give definite indications, all other questions of procedure would be settled in accordance with the Rules of Procedure of the Assembly.

In reply to a question whether the three organisations mentioned had been invited to the Conference, or whether their application was spontaneous, the President explained that these three organisations requested the Preparatory Committee to admit them to the Conference. After full discussion the Preparatory Committee was of opinion that they should be admitted so that their representatives might be heard by the Committees, subject to the consent of the Chairman of the Committee concerned.

M. Bilbao (International Institute of Agriculture) asked whether the representatives of international organisations, such as the International Institute of Agriculture, which had been invited to the Conference would take part only as observers or whether they could take part in the discussions either in the Committees or in the plenary meetings.

Dr. Rajchman (Medical Director) explained that there was an essential difference between the representation at the Conference of the two great international institutions — namely, the International Labour Office and the International Institute of Agriculture, on the one hand, and that of the voluntary organisations, on the other hand. As the President had explained, a request would have to be addressed in the first place by the latter organisations to the President ; this had been done by the three organisations mentioned by the President. This application, to which the Conference would no doubt agree, would be transmitted to the Committee to which the representatives of the organisation in question wished to make a statement.

The two great international institutions were represented in the Preparatory Committee, all the members of which should, in accordance with the Council's resolution, be at the disposal of the Conference itself. Consequently, the representatives of the International Labour Office and of the International Institute of Agriculture were entitled to take part in all the discussions like any other member of the Conference.

The President's proposals regarding the Rules of Procedure were adopted.

Various Arrangements.

The President said that the general discussion with which the Conference would begin would naturally be based, in particular, on the experts' reports, and that the Rapporteurs were prepared to give any additional information which might be necessary.

The Preparatory Committee had decided that a daily bulletin should be distributed to the members of the Conference, containing the programme and agenda for each day and a summary of the questions already dealt with, so that the members of the Conference might be kept informed of the progress of its work.

Dr. Lutrario asked in what order the three questions on the agenda would be dealt with in the general discussion.

The President replied that the delegations would be quite free to discuss these three subjects in the manner they thought fit. Possibly at the second meeting the discussion might be more clearly defined and it might be possible to fix a more definite agenda for the following meetings. It should be remembered that the preparatory work already accomplished might not coincide with the opinions of the various delegations, who must therefore be allowed to express themselves freely and to state the results of their own experience or the experience gained in their countries.

SECOND MEETING (JUNE 30TH, 10 A.M.)

Bureau of the Conference. — Opening of the General Discussion on the First Item on the Agenda (Medical Assistance) : Statement by the Rapporteur, Professor Parisot ; Statement by M. Unger on the Relations between Health Insurance and Rural Hygiene.

President : Professor G. PITTALUGA.

Bureau of the Conference.

The PRESIDENT stated that the Bureau of the Conference had been constituted. It consisted of the six Vice-Presidents of the Conference elected at the first meeting, and the Chairmen elected by the three Committees — viz., the First Committee (Medical Assistance), Dr. Alexander SHEARER, Medical Officer, Department of Health for Scotland ; the Second Committee (Organisation of the Rural Health Services), Dr. Bela JOHAN, Director of the Institute of Hygiene, Budapest ; the Third Committee (Sanitation), M. VIGNEROT, Chief of Rural Engineering, France.

He further stated that these three Committees had elected Vice-Chairmen — viz., the First Committee, Dr. Assim ISMAIL, Director-General of Health, Turkey ; the Second Committee, M. A. PALLIS, Secretary-General of the Ministry of Health, Athens ; the Third Committee, M. Milivoj PETRIK, Chief Sanitary Engineer, School of Hygiene, Zagreb.

Credentials Committee.

The PRESIDENT stated that this Committee, which had been elected at the first meeting of the Conference, had not yet finished the verification of credentials. It would report to the Conference later.

General Discussion.

The PRESIDENT requested any delegates wishing to make statements in the general discussion to send in their names and the subject of the statements. Naturally, this only referred to prepared statements, and any other delegates wishing to take part in the discussion could do so without previous notification.

He called upon Professor Parisot, the Rapporteur on Medical Assistance, to give his views on the first point of the agenda and on the discussions on this subject which had taken place in the Committee of Experts.

Professor PARISOT (France), in referring to the title of his report, " Guiding Principles and Suitable Methods for ensuring Effective Medical Assistance in Rural Districts ", said it was necessary to define, in the first place, what was meant by " effective medical assistance ".

Formerly, this expression implied almost exclusively relief of the sick ; but, with the progress of medical science, it had come to include more and more the prevention of disease and the methods of detecting the first symptoms of disease. He thought medical assistance should be regarded in its broadest sense as representing a medical service placing at the disposal of the people all the facilities of modern medicine, in order to promote and protect health, and to diagnose and treat disease from the beginning. He referred to the necessity of health supervision by means of periodical examinations of persons of

all ages. While this method was not yet sufficiently used, its undoubted advantages were demonstrated by health insurance institutions, particularly in the United States, Germany and Switzerland. French health insurance institutions were also endeavouring to apply this system. The realisation of a system of medical assistance complying with these requirements necessitated the existence of essential elements whose importance and value should be proportionate to the progress of medical science.

Such a conception of medical assistance did not apply exclusively to rural districts, but should, in general, guide the application of all public health protection for the entire population and should be adapted to the local conditions of different rural districts.

In his report, he had considered the general principles governing this system and had dealt with (1) personnel, (2) health equipment and (3) the measures applying to the people. With regard to the third point, he emphasised the importance of training the population to understand the benefits of medical assistance, not only as a means of treating illness, but as a preventive measure.

He attached special importance to the co-ordination of the various efforts for bringing such a system into effect. Medical assistance should also be co-ordinated with other parts of the public health system, and should take its place in its proper relationship to the various elements making up the whole. Only in that way would the most effective result be obtained.

The personnel should include doctors, pharmacists, nurses and midwives. Of these, the most important were the doctors, of whom there should be a sufficient number, and who should possess adequate qualifications. It was impossible to decide in theory how many doctors there should be in proportion to the population. Local conditions varied greatly in different districts. The experts had, however, stated that 2,000 was the maximum number of persons who could be given proper medical attention by one medical practitioner. With the growth of the health services and the needs of the people, this number might be reduced to 1,000. These figures represented only general ideas and would have to be adapted to local conditions. If the health services were inadequate and there was an abnormally high sickness rate, a greater number of doctors would be required. On the other hand in districts where health organisations were well developed and where educational work had increased the popularity of individual methods of prophylaxis (vaccinations, etc.), more work would be thrown on the medical practitioners.

It might appear unnecessary to refer to the professional qualifications of doctors ; but it was a fact that, if there was to be effective and fruitful co-operation with the health services, the practitioners must have an exact idea of the part they were called on to play in the general scheme. In the case of young doctors, the value of preventive work was inculcated in their university training. The position was very different with the older doctors, whose isolation in rural districts prevented them from keeping abreast of medical progress. But there were methods such as wireless lectures, " medical days " held in university and hospital centres, etc., by which they could add to their knowledge and be kept informed of new scientific developments. He would not go into details of those methods. The Conference held at Dresden in July 1930 had given many useful indications regarding the training in hygiene of medical students, and the supplementary training of practitioners.

In addition to general practitioners, specialists were also required for diseases of the ear, nose, throat, eyes, etc. Naturally, such specialists could not be permanently established in rural districts, but it would be possible for them to visit such districts periodically and give consultations. It was also essential to establish close co-operation between the specialist and the local doctor, so that the latter could bring his patients for specialist examination and be enabled to treat them in the manner prescribed by the specialist.

The question of pharmacists was not mentioned in the experts' report. Nevertheless, Professor Parisot thought this question should be taken into consideration. In spite of improved communications in rural districts, he thought pharmacists should be sufficiently numerous so that drugs might be readily obtainable and prescriptions quickly made up.

The methods used in some countries might be imitated — *e.g.*, the *Farmacista Condotto* in Italy and the *Propharmacist* in France. It was advisable to have emergency depots of drugs, and particularly sera, in rural districts. They could be kept, not only at the doctors' homes, but also in health centres, hospitals, dispensaries, etc. Naturally, all precautions should be taken for the preservation and employment of such preparations, particularly those which were poisonous.

The question of veterinary surgeons was also not mentioned in the experts' report. Professor Parisot regarded this question as of special importance in view of the possible transmission of diseases from animals to human beings. In the struggle against disease, there must be close co-operation between all who were working for the same aim.

It had been agreed that medical assistance also called for a qualified auxiliary personnel consisting of nurses and midwives. The nurses were divided into two categories, *i.e.*, health visitors, with whom Dr. Stampar had dealt in his report on the local health organisation, and trained nurses. The experts had arrived at the conclusion that there should be one or more nurses in proportion to the population served by one doctor.

With regard to midwives, Professor Parisot considered that their co-operation was indispensable in the rural districts and that they should be duly qualified and authorised in accordance with the law of the State in which then practice. It was impossible to fix their number, but they must be in proportion to the population and to the local birth rate. The number should, however, be sufficient to provide obstetrical care in rural districts, particularly for indigent women. In many countries, such as Spain, Italy, Germany and France, the midwife was employed by the commune. Professor Parisot considered this a good practice, as it guaranteed her a minimum salary.

The question arose whether, as in England, it was possible to combine the work of midwives and nurses. This system had the advantage of ensuring adequate compensation for midwives, while increasing the limited number of nurses. The Budapest Conference was opposed to such a broad conception of the assistance of midwives. On the other hand, it might be wise to entrust to midwives certain clearly defined and limited tasks for which they were adapted, such as assisting at pre-natal consultations and supervising the newborn, for which work they would be paid by the health services. Such work could only be assigned to them on the condition that it be carried out in close co-operation with the visiting nurses of the areas and that their general and technical training had been adequate.

With regard to the less qualified temporary personnel, Professor Parisot considered that, even in the smallest rural settlements — for instance, in isolated or mountain villages there should be a person capable of giving first aid and of carrying out the doctor's orders. In various countries, useful assistance had been given by persons who had taken short courses, such as stretcher-bearers, Red Cross students, etc. Moreover, the increasing development of first-aid posts (in telephonic communication with a medical centre) might render useful service, especially in the case of motor-car accidents.

Having thus dealt with the staff required for effective medical assistance, Professor Parisot turned to the question of sanitary equipment. As medical assistance had both a preventive and a curative aim, its sanitary equipment should suffice for both purposes by means of special establishments for prevention, hospitalisation and treatment.

Centres of diagnosis and prevention existed in almost all European countries. They were no doubt more numerous in the towns than in rural districts and took the form of dispensaries, which were either specialised — that was to say, dealing, with a single subject, such as maternal and infant welfare, tuberculosis, venereal disease, cancer, etc. —

or were generalised and covered several of these subjects. The Budapest Conference considered that the centre with multiple work, combined and co-ordinated with other health work, was the type best adapted to rural districts. As this type was described in Dr. Stampar's report, Professor Parisot did not go into details. His object was to ascertain how such centres should co-operate with the local practitioner and what was their special rôle as a factor in medical assistance. Such a centre established by the health authorities should be a centre for examination and diagnosis; it should be well equipped — for instance, with X-rays and should be staffed with a specialised medical personnel. It should work in close co-operation with the medical practitioner. This co-operation, which was of advantage to the patient, the health service and the doctor, should be established in such a way as to keep the doctor regularly informed concerning the treatment of his patient by the specialist attached to the centre.

The question arose whether such a centre of diagnosis should also give medical treatment. In some countries, all necessary specialised treatment was given ; in Germany, this was not the case ; in France, the centre of diagnosis restricted the treatment to venereal and certain other diseases which presented difficulties for the medical practitioner. Under such circumstances, it was impossible to generalise, and arrangements should be made which would take account of exceptional local conditions. Professor Parisot personally thought that, in view of the difficulty of attracting specialists to rural districts, means should be found of providing a suitable living for the doctors. The health centres should treat the indigent population and utilise the local doctors in infant welfare work, school hygiene, pre-natal consultations, etc. This would call for supplementary theoretical and practical training for the medical practitioner in order to qualify for this work. He would thus become one of the elements of the local health organisation and would be remunerated for the special work entrusted to him. Moreover, by this co-operation he would learn more readily the medical and social value of the organisation in whose work he was participating, and would establish closer relations with the specialists attached to the health service.

In addition to the centres of diagnosis and prevention, there should also be centres for hospitalisation and treatment. Rural medical assistance implied the existence of hospital facilities in properly equipped establishments. The experts had come to the conclusion that a hospital was necessary for a population of from 20,000 to 30,000, that there should be about two beds per 1,000 people and that hospitals with less than about fifty beds were too small to operate satisfactorily and economically. In the case of isolated rural districts without rapid means of communication, the health centre might have a small number of beds, as was the case in Yugoslavia.

Rural hospitals should be general hospitals. As a temporary measure, they might possess specialist services, but the final aim was to centralise the special services in such a way as to serve a whole region.

This question was closely connected with the development of rapid communications.

The third element in health equipment was the laboratory. It had been found that modern medicine required the use of laboratories to an ever-increasing extent in order to confirm the diagnosis and to obtain guidance for the treatment. Laboratories were also of value in assisting the rapid application of prophylactic measures and aiding in general in the development of hygiene and preventive medicine. While simple analyses could be carried out at the rural centres described above, the more complete analyses should be carried out in larger, well-equipped laboratories, which might be either private or official. In any case, they should be subject to official supervision. The existence of a well-equipped central laboratory or institute of hygiene was of undoubted value, as it could carry out, free of charge or at very low rates, the analyses necessary for the poorer classes, who would thus gain the advantage of a proper diagnosis.

For practical purposes it was necessary to organise the work in such a way as to place the necessary specimen containers at the disposal of doctors in the rural districts, to provide for the rapid transport of specimens to the laboratory, and to submit reports on the analyses as quickly as possible. Such a system already existed in many countries.

In addition to establishing such a service, the doctors must also be given the necessary instruction as to the technique of taking suitable specimens, the conditions in which laboratory assistance should be sought, the information they might hope to obtain and the conclusions which they might draw. All these were important factors which would permit the use of laboratories and contribute to the proper development of co-operation between laboratories and rural medical assistance.

Professor Parisot then came to the third part of his report dealing with measures relating to the living conditions of the people. If preventive and curative medical assistance were to be fruitful, it was essential that the people for whom it was established should seek its benefits. They would do this in proportion to their understanding and appreciation of its value. Here, again, co-operation must be sought — namely, that of the rural population itself, despite their general level of education, their isolation and their indifference to matters not directly concerned with their work, which frequently constituted obstacles to their understanding of the most elementary ideas of hygiene. For this purpose a programme of education and propaganda adapted to rural conditions should be applied. For instance, carefully selected members of the population might be given special training, as was done at the schools of hygiene at Zagreb, Warsaw, etc. On returning to their rural districts these persons would themselves become propagandists in respect of disease prevention.

However, the results of preventive and curative medicine might easily be sterile or very restricted were they not supported and supplemented by all general health measures, sanitation and bonifications directed towards the improvement of the living and working conditions of the people. For instance, the campaign against tuberculosis would be ineffective if it only consisted in locating cases and taking preventive measures, while no steps were taken to improve housing conditions and to get rid of rural slums. This brought Professor Parisot to a subject which, strictly speaking, came within the sphere of other rapporteurs. He only mentioned it in order to demonstrate the necessity for that close co-ordination and mutual support which should characterise the various measures of health protection, if the object of each was to be attained.

Professor Parisot then came to the second part of his report dealing with the principles governing the organisation. He had traced the various factors which entered into the organisation of rural medical assistance. It was now necessary to consider how those factors should be brought together — *i.e.*, what principles should govern the organisation and completion of the service and what practical methods and means would make such a service possible. Such an organisation should be considered from different points of view, depending on whether it was established in a new district or whether certain of its elements already existed and had to be merely improved and adapted in accordance with the principles previously laid down. In the first place, therefore, it was necessary to study local conditions as regards : *(a)* the situation of the area, its size, means of communication, situation and population of settlements, etc. ; *(b)* health and medical requirements, sanitary conditions, epidemiology, etc ; *(c)* existing resources in respect of personnel and equipment, not only in the district under consideration, but in the entire administrative unit.

When this preparatory work had been done, it would be possible to secure a general idea of the task. The provision of effective medical assistance in rural districts demanded the co-operation of the public health and welfare authorities, the medical profession, health insurance institutions, associations such as agricultural co-operative societies, etc., and private institutions.

The public authorities, by means of a rational organisation of the health services with an adequate specialised staff, should attempt to develop and maintain the preventive aspects of medical assistance. They should stimulate and co-ordinate the efforts of the institutions and groups concerned with medical assistance and should try to remedy deficiencies. In their efforts towards the creation of a health system or the improvement of a poorly equipped system they should aim at encouraging local initiative and supporting it by subsidies.

Professor Parisot paid a tribute to the assistance given by the health insurance institutions, and thought that co-operation with those bodies should be increased.

One of the main difficulties was the provision of a sufficient number of doctors in the rural districts, and a question arose as to how medical practitioners could be encouraged to settle in such districts. In some countries the doctor was an official. This had the advantage of providing him with a salary. The system was not practicable in all countries, and he thought a solution might be found which would satisfy the requirements of a complete organisation for the promotion of public health. Doctors should be offered advantages, such as free dwellings, transport facilities, etc., in rural districts. They should be assured of an immediate revenue proportionate to the cost of living, thus enabling them gradually to develop a practice among the well-to-do classes in the district. In Italy, the *medico condotto* was apparently in a fairly good position when the various fees and other revenue were taken into consideration. In France, public assistance was similarly organised, although it worked by different methods.

Finally, the compensation received by the medical practitioner was an advantage which, together with those offered by the commune and associations and particularly by health insurance institutions, might cause him to settle in districts which hitherto had not attracted doctors.

In short, Professor Parisot thought that, through the co-operation of all those interested in the development of the health services of a given district, it was possible to encourage doctors to establish themselves in localities where there were none When the co-operation of the medical societies with the health organisations was effective, the former might be instrumental in advising and directing young practitioners to posts offered to them in such districts.

Professor Parisot attached great importance to co-ordination in the efforts of the various sections of rural health work. He considered it better to have perfect co-ordination, even if some of the elements were lacking, than to have perfect elements working independently of each other. By means of co-operation, he thought it possible to organise the effective promotion of the health of rural populations.

The PRESIDENT felt that all present would wish him to thank Professor Parisot for his clear and accurate report and the valuable comments accompanying it. He would now call on M. Karl Unger, Director of the National Union of Rural Health Insurance Institutions of Germany, to address the Conference.

M. UNGER (Germany) said his report on the relations between health insurance and rural hygiene fell into three sections. The first dealt with the aims and objects of rural health insurance institutions, which were to maintain health, prevent disease, and restore the working capacity of the insured. The second explained the part played by health insurance in the organisation of a rural health service. Without in any way encroaching on the work of public health services, sickness insurance institutions could, and did, do valuable work in diagnosing ailments and preventing the development of disease. The third section described the co-operation between rural health insurance institutions and rural health services, the best guarantee, he thought, for the welfare of the rural population.

The purpose of social insurance institutions was to safeguard health, the most valuable asset a nation had, by concentrating and making the best possible use of the contributions paid by individuals on the principle of " all for each and each for all ". As the International Labour Office's report had emphasised, health insurance funds were institutions for safeguarding those whose health was most endangered, based on the principles of mutual help and enjoying considerable independence. The function of the State was merely to exercise supervision. Initially, the aim pursued was to compensate members in cash for wages lost through sickness ; but, recently, the tendency had been to give increasing prominence to benefits in kind. Originally, also, sickness insurance had applied mainly to industrial workers, the assumption being that agricultural labourers, from the circumstances of their employment, were less in need of insurance benefits. It was speedily realised, however, that living conditions on the land were by no means ideal, that agriculture was becoming more and more mechanised, and that the former patriarchal relations between employer and labourer were gradually disappearing. Health insurance, therefore, had to be extended to cover rural workers, and had helped considerably in stemming the flight from the land. There were now five to six million agricultural labourers in Europe compulsorily insured against sickness, exclusive of those who had voluntarily joined the insurance institutions.

According to the International Labour Office report (contained in document C.H. 1045) agricultural labourers had to be insured against sickness in the following countries :

Austria	France	Netherlands
Bulgaria	Germany	Norway
Czechoslovakia	Irish Free State	United Kingdom,

while in Poland, Roumania and Russia insurance was compulsory only for certain categories of agricultural labourers.

After describing the basic conditions under which rural labourers were liable to compulsory insurance, M. Unger stressed the way in which benefits were extended to the members of workers' families. The effect was to bring a very large proportion of the rural population under medical supervision, thus procuring them the advantages of timely diagnosis and prophylactic treatment and the possibility of effective recovery. The benefits extended consisted mainly of cash payments in lieu of the wages lost and medical services. The latter were given free of charge by fully qualified doctors and specialists ; in addition, medicine was supplied and members could claim hospital treatment and the services of midwives. Women wage-earners, moreover, were also entitled to money benefits during and after confinement.

Health insurance societies had always considered the organisation of adequately equipped rural health services as one of their primary obligations, and had accordingly arranged for their members to obtain medical advice free of charge either at the doctor's consulting room or in their own homes. Where necessary, members could also have hospital treatment and be admitted to convalescent homes in order to restore their normal working capacity. In the International Labour Office report already mentioned, figures were given of the expenditure of rural health insurance funds in Czechoslovakia which demonstrated his point regarding the predominating part played by benefits in kind nowadays. It appeared that, on an average, members of those funds drew 70 Kr. in doctors' fees, 34 Kr. in medicine and 64 Kr. in hospital treatment—*i.e.*, 168 Kr. in benefits in kind—as against actual cash benefits of 110 Kr. It would be realised that the extent and variety of these activities of health insurance funds implied better prospects of employment for country doctors. The report of Dr. Miemietz (document C.H. 965), as well as his own report to the Committee of Experts, mentioned this as one of the gratifying consequences of the growth of rural health insurance. As regards the specific proportion of

doctors to population, he would refer them to the finding of the experts as given in document C.H. 1045, page 10, paragraph 2.

Health insurance funds further provided for specialist assistance, dental treatment, X-ray examinations and laboratory analyses of all kinds. Hospital treatment, in particular, was highly appreciated, in view of the inadequate housing accommodation usual in country districts, the considerable distances to be covered by the doctor, and the risk of infection incurred in the case of home treatment. In Germany, for example, rural health insurance funds expended on hospital treatment 22.1 per cent of their total outlay. In this connection, he wished to stress the necessity for a system of motor transport for the insured population. Latterly, insurance funds had acquired their own motor ambulances, etc., for the use of members in case of accidents and emergencies, and these means of locomotion were equally at the service of the uninsured population. Mention should also be made of the practice of contracting with the relevant institutions for members of health insurance funds to be given special treatment for tuberculosis, rheumatism, etc. The report referred to auxiliary personnel. It was therefore unnecessary for him to dwell further on the services of such personnel, which was also a feature of the organisation of health insurance institutions.

M. Unger was particularly grateful for the opportunity of emphasising the great importance of co-operation between rural health insurance associations and public health services. Evidence of such co-operation could be seen in the willingness of the associations to make advances from their reserve funds for the construction of hygienic dwellings for labourers. Furthermore, common action was being taken to combat insanitary practices and to enlighten the rural population on the dangers of superstition and fanatisism. The fact that health insurance associations only employed doctors who were fully qualified and held State diplomas was convincing evidence of their attitude on those questions, and he would be very glad if the representatives of the medical profession present would confirm that fact. There was co-operation also between insurance associations and public health services in issuing pamphlets, displaying films and organising permanent or travelling health exhibitions. Such propaganda work was as necessary among independent peasants or agricultural employers as among labourers. He need only instance the regrettable fact that infant mortality rates in rural districts had not fallen to the same degree as in towns to prove that close co-operation in such educational work was extremely necessary if the indifference to hygiene so common in rural districts was to be overcome. Similarly, co-operation between doctors and private agencies was essential to combat tuberculosis, venereal diseases, cancer and alcoholic addiction. It should be remembered that a nation's capital resources were drawn from the land and there were serious risks involved in neglecting the rural population. Anything that served to maintain this source of national health and wealth would be well worth the effort expended.

In conclusion, he thought that the presence of health insurance fund representatives from various countries at the Conference was the best proof of their determination to co-operate in promoting the cause of rural hygiene.

THIRD MEETING (JUNE 30TH, 3.30 P.M.)

Continuation of the Discussion on the First Item (Medical Assistance) : Speeches by M. Andronesco (Roumania), Dr. Jitta (Netherlands), M. Garcia Tornel (Spain), M. Prohaska (Yugoslavia), M. Santiago (Spain), Dr. Pelc (Czechoslovakia), Dr. Lutrario (Italy) ; Replies by Dr. Unger (Germany) and Professor Parisot (France).

President : Professor G. PITTALUGA.

Continuation of the Discussion on the Reports by Professor Parisot and Dr. Unger (First Question on the Agenda).

M. ANDRONESCO (Roumania) wished to submit, in connection with Professor Parisot's report, a suggestion relating to the rural health organisation. He thought it might be desirable to request the clergy to take an active part in supervising the health conditions in which the rural populations lived ; formerly, the priests exercised constant and effective action in this sense.

He thought it would be useful to organise local associations uniting all the medical personnel of the district or locality under the direction of the doctor, in order to supervise the practical fulfilment of suggestions such as those made by Professor Parisot.

Dr. JITTA (Netherlands) thought it advisable to communicate to the Conference some information on the special position of rural hygiene in Holland ; conditions varied in different countries in accordance with their size and their communications, etc. The small area of Holland made it possible to transport sick persons and the medical personnel without difficulty.

He thought it would be difficult to distinguish between the treatment of sick persons and the problems of prevention and rural hygiene. In any case, a great number of conferences such as the present one would have to be held in order to eliminate a great number of diseases by preventive means. Until that time, it might be necessary to deal separately with the question of the treatment to be given to sick persons.

He would not waste time in fixing the number of persons who might be under the care of one doctor. Professor Parisot had recognised that it was at present impossible to settle this question, as the number was affected by too many different conditions.

One of the most important problems of rural hygiene was the training of young doctors as health officers. In Holland, where the technical studies were especially long, the doctors were anxious to begin their career as soon as their diplomas entitled them to do so. It was nevertheless necessary to give them adequate instruction in social and preventive medicine. Holland had not a model organisation in this respect, but in various universities there were optional courses which were fairly well attended and institutions for preventive medicine whose work in this respect was valuable.

Dr. Jitta agreed with Professor Parisot and with the Committee of Experts on the necessity of separating the work of midwives from that of nurses. The former had very irregular work which made it impossible for them to give constant attention to patients of various categories ; moreover, there was a danger that midwives nursing other patients might infect women lying-in, and this made it impossible to entrust nursing work to midwives.

As the distances between the various places in Holland were short, it was almost always possible for patients to consult competent specialists. The dentists made frequent visits to the country districts in the Netherlands ; their work would be more effective if the rural population fully appreciated the value of dental treatment. Active propaganda was necessary in that connection.

Rural nurses should receive special training. In Holland, they first had the compulsory training common to all nurses in the hospitals, and afterwards special courses for rural visitors and lessons relating to mental diseases.

Dr. Jitta pointed out the danger of having recourse to voluntary assistance for the treatment of patients. Although such measures could only be exceptional and temporary, it was inadvisable that sick persons should be treated by persons not possessing sufficient experience. The case was different in respect of first aid. In Holland, there were courses for persons wishing to have elementary training in dressing wounds, transporting the sick and injured, etc. But these persons should be given refresher courses ; a preparatory course alone was insufficient.

The Netherlands delegate gave additional information on the laws in force in his country. A recent law on infectious diseases compelled each commune or group of neighbouring communes to provide special buildings reserved for infectious cases or for cases which required immediate attention and had to be isolated. This law had only been in force for five years, so that all the communes had not yet installed the necessary premises. Their activity was regularly supervised by official inspectors, who had to inspect the premises provided for the patients.

Under another law, the communes were obliged to disinfect whenever necessary. The State made them special grants for this purpose.

Health insurance was a recent measure in Holland. Employers' organisations and health insurance institutions had to create two funds, to which contributions were, for the most part, made by the employers. It was provided that the first of these funds, which was used for prophylactic measures, should amount to 7 million gold francs ; the second, which was to amount to 12 million gold francs, would be used for the treatment of the insured persons. On account of the financial crisis, these funds were not yet complete, but they would shortly be so.

In Holland, there were several associations known as " Crosses " for giving assistance to sick persons. Dr. Jitta had had occasion to show these institutions to some of the members of that Conference who had visited Holland. The " Crosses " of various colours worked in harmony and supplemented each other. The principal ones — the " Green Cross " and the " White and Yellow Cross " — maintained especially competent nurses throughout the country. They worked in consultation centres for persons affected with tuberculosis, for children, etc., and kept stores of materials to be used for treating sick persons. All sick persons in Holland could have recourse to these voluntary organisations.

M. Garcia Tornel (Spain) attached special importance to the question of rural health centres. He was in entire agreement with Professor Parisot as to the necessity of protecting the legitimate interests of rural practitioners. He therefore thought those centres should only give a diagnosis and an indication of the treatment, and should work in connection with the local doctors. They should only apply treatment requiring special equipment which the doctors were unable to give, as in the case of pneumothorax.

He thought the agreement to be adopted on this question by the Conference would be very far-reaching.

The part played by the rural pharmacists was important enough to consider granting them special housing allowances, as was done in Catalonia.

He communicated to the members of the Conference the scheme of the Barcelona

Health Organisation, which he had helped to establish as Health Adviser and which was in entire agreement with the ideas expressed in Professor Parisot's report.

M. Vermaire (Luxemburg) read a memorandum on rural hygiene in Luxemburg. The conditions of rural hygiene in that country were satisfactory. The small area of the country, its uneven surface, which was very suitable for building, the small number of farms, and the division of the properties into small plots resulted in the houses being mostly spacious and clean and separated from the out-houses. Conditions had changed from former times, when every village contained a number of landless people who were badly housed and led a miserable existence. Industry had recently absorbed this surplus labour, and the rural population now enjoyed a satisfactory standard of life. Moreover, the use of agricultural machinery had greatly reduced the strain of the labourers. Electrification had become general and had brought a certain amount of comfort to the most distant hamlets. Great efforts had been made to supply the population with drinking-water. Before the war, there were two collective associations for the inter-communal supply of water in the south and in the north. Practically speaking, the entire country had an abundant supply of drinking-water. Consequently, epidemics due to water had entirely disappeared.

General sanitation was promoted by means of financial help from the State in all health work.

Under the recent law on agricultural improvements, long-term loans were granted at a low rate of interest ; while, the under law on cheap dwellings, the State granted advances on favourable conditions to persons wishing to build houses.

The rural medical service was in the hands of local doctors, of whom there was a sufficient number. There was no special legislation on the subject, but State doctors pointed out any deficiencies in the service.

A great part of the population was insured with the Health Insurance Fund, and the communes, with the help of the local doctors, provided for assistance to the needy population ; in addition, there was a central hospital.

The work of the Luxemburg Red Cross was specially devoted to prevention ; in addition, there were anti-cancer and anti-tuberculosis leagues and associations for mental prophylaxis, etc., whose work had already given appreciable results.

Lastly, the State took on itself all expenses for the treatment of contagious venereal diseases in the case of indigent persons, and even patients of modest means.

M. Prohaska (Yugoslavia) thanked the Conference on behalf of the Yugoslav health co-operative societies, who followed its work with great interest and expected to receive great encouragement in their co-operative work.

After hearing the report by Professor Laur at the Prague Congress, M. Prohaska had been able to appreciate the active part played by the Swiss co-operative societies in the agricultural development of the country.

In Yugoslavia, the agricultural co-operative societies were the most active agricultural organisations even in the restricted pre-war territory of the country. Their founder, M. Kojitch, had conceived the idea of entrusting them with the task of improving the health conditions in which the rural population lived, and before his death he entrusted M. Prohaska with the realisation of this work.

This idea was particularly suitable, as the Yugoslav peasants were more apt to take an interest in institutions of an economic character than in purely intellectual propaganda. The co-operative system of rural hygiene, with the assistance of the American Child Welfare Association, had yielded very satisfactory results. A pamphlet published by the Yugoslav health co-operative societies would be distributed to the members of the Conference.

There was one remark in Professor Parisot's report with which M. Prohaska fully agreed. Professor Parisot urged the necessity of the greatest possible co-ordination in the rural health services and of the close co-operation of the population ; the sympathy of that population in health work must be aroused.

It was with this object that the Yugoslav health co-operative societies regarded it as their duty to lead the rural population to a better understanding of health work, and thereby to altruistic and idealistic views. The health co-operative societies might be called the elect of the Yugoslav co-operative societies.

Professor Parisot had stated in his report that there should be a sufficient number of doctors, and that their professional qualifications should be adequate. The co-operative societies had fulfilled these two conditions even in isolated, mountainous and poor districts, where the task was a difficult one. They had succeeded because they had their own doctors chosen from amongst the best qualified. The members of the co-operative societies and the local committees ensured a further selection. The health co-operative societies had also organised a veterinary section whose work was of great interest to the peasants, as it placed at their disposal, at small cost, the assistance of qualified veterinary surgeons ; this was a further reason for their interest in the health co-operative societies.

The co-operative societies had also organised rural centres, including a dispensary with a few beds and the doctor's dwelling, even in isolated villages with poor communications. By means of these centres, the rural population obtained treatment which was formerly inaccessible to them on account of their great distance from the towns.

The greatest advantage of this organisation was that the Yugoslav peasant was economically interested in the prosperity of the co-operative societies. He paid a contribution and undertook a part of the responsibility equal to ten times that contribution ; if the co-operative society failed in its work, he had to pay a considerable sum. This remark also applied to the health insurance organisation of the co-operative societies ; the peasants had a double interest in its proper working — namely, as co-operators and as insured persons. About twenty health co-operative societies in Yugoslavia had applied a system of health insurance.

The conclusion that might be drawn from the work of the health co-operative societies was that the Yugoslav rural population had at their disposal the necessary medical staff and nurses required to ensure, as effectively as possible, the maintenance of hygiene in country districts.

M. Santiago (Spain) wished to state the views of the Spanish working class. Professor Parisot's report dealt rather too summarily, he thought, with social insurance — which was all the more regrettable, inasmuch as France could now give them the benefit of her experience in this matter as well as in that of friendly societies. The only system which could secure medical assistance for agricultural workers in rural districts was that which operated through the medium of friendly societies. He had been gratified by the stress laid in the German delegate's speech on the value of such societies in Germany and the part they played in rural hygiene. Since its emancipation, Spain was taking steps to introduce health insurance and unemployment and accident insurance. Quite recently, a bill promoted by the Council of Labour, upon which he had collaborated, brought agricultural workers under the law on accidents, and it had been resolved to organise such insurance through the societies. Employers were obliged to join a society in order that workers who had met with accidents could be given competent and scientific treatment. The growth of friendly societies should be encouraged and they should be created in countries where they did not yet exist.

Professor Parisot had also mentioned the attention required by children, pregnant women and workers suffering from tuberculosis, but seemed rather to have overlooked

aged persons exhausted by a lifetime of labour who were sick and bereft of resources and relations. He would like, in this connection, to commend the action of the Prague municipality in founding an institution for the aged sick and indigent above 50 or 60 years of age, where they could end their days in peace. He ventured to hope that the Conference would bear this question in mind.

Dr. PELC (Czechoslovakia) wished merely to supplement Professor Parisot's interesting report by a few concrete examples from Czechoslovak experience. Could social insurance alone be expected to solve the problem before the Conference, particularly that of the free treatment of sick persons in rural districts? Personally, he believed that the system of communal doctors employed in Europe before social insurance became so general was worthy of consideration. Czechoslovakia had about 2,000 communal doctors paid by the State, whose duty it was to attend, free of charge, all residents in the commune who could not afford other treatment. In the present time of crisis, what would have happened if this system had not been in force? Insurance funds were no longer receiving regular contributions from members, so that it was more necessary than ever to have the unpaid services of communal doctors for the destitute. He did not mean to advocate relief in preference to sickness insurance. These factors were the twin columns of one edifice. Professor Parisot was right in emphasising the importance of the psychological factor in the case of peasants ; it should never be overlooked.

First aid was a specially serious problem in rural districts in view of the increasing use of agricultural and other machinery. In Czechoslovakia, there were fire brigades in nearly every commune, and it had been arranged jointly with the Red Cross that these brigades should be furnished with the necessary equipment to be able to give first aid. It was certainly right to invoke the collaboration of all to attain the best results, and he could cite a further instance from Czechoslovak experience in this connection. It was still an unfortunate necessity for States to maintain expensive armies with large stocks of equipment which lay idle in peace time. The idea had occurred to them to use some of that material for the welfare of the community by asking the Army to put its motor-cars at the disposal of Red Cross societies for the free transport of the sick.

Dr. LUTRARIO (Italy) wished to stress some controversial points in Professor Parisot's report from a knowledge of Italian conditions. As the Rapporteur had justly remarked, modern medicine should not merely treat the patient, but try, as far as possible, to forestall the onset of the trouble and possibly ascertain by periodical examination what disease a person was likely to contract. As he had already pointed out in the Preparatory Committee, much had been done in this direction in the United States, and a good start was now being made in Europe also particularly by insurance companies, who arranged for their policy-holders to have periodical consultations in order to ascertain their physical condition and nip any ailments in the bud. The result was nearly always to arrest the progress of disease. The principle should be to secure collaboration, not between the physician and the patient, but between the physician and the healthy or ostensibly healthy person. There should be a preliminary inspection of the human organism just as, before starting a motor tour, the engine was examined. Professor Parisot had put his finger on the vital point when he mentioned the necessity of collaboration between the doctor and the patient.

Another point which had raised much controversy, especially at Budapest, was the collaboration between midwives and health insurance funds. Midwives, of course, could not be employed universally, but only in those departments where they could be really useful. In Italy, thanks mainly to the *Opera Nazionale pro Maternita e Infanzia*, midwives had contributed to excellent results being attained in the field of medical assistance, but it must be recollected that, in Italy, midwives, after a course of preliminary instruction, had

to take three years' special training before they could practise. They were then able to collaborate intelligently in preventing puerperal fever — without, of course, taking the place of doctors — and that disease had now diminished very considerably, mainly owing to the work done by midwives, particularly in country districts. Midwives also received special courses in the care of children. In the campaign against cancer, it had been found that women preferred to be examined by midwives before consulting the doctors, and their help was equally useful during pregnancy.

As regards the question of specialists, Professor Parisot had justly observed that it was in that direction that medical assistance should now be developed, owing to the evolution of the science of healing. It was in this direction also that Italy was turning her efforts, although from time immemorial there had been in that country the system of *medici condotti*, of whom there were about 10,000. Italy suffered greatly from malaria, and, in the regions concerned, there was a very large number of anti-malarial dispensaries. A special campaign was being carried on against trachoma, and there were 264 dispensaries available, which, in 1930, had treated 62,788 patients. In certain provinces, inspectors were appointed exclusively for the supervision of trachoma. Similarly, there were many dispensaries for those suffering from tuberculosis and venereal diseases, especially in the country districts. In certain provinces, in particular in the province of Rome, the Governor had instituted a weekly visit by specialists in the communes.

Another very important point stressed by Professor Parisot was sanitary equipment. The verification of diagnosis in the laboratories was organised in Italy as follows : the chief town of each province possessed a provincial laboratory, and towns of 100,000 inhabitants and over also had a laboratory, to say nothing of the laboratories annexed to hospitals, nursing homes and university institutions, as well as private laboratories.

For the liaison between rural districts and laboratories, Italy possessed the material of which Professor Parisot had spoken in particular, for the transport of samples of drinking water in small, special cases.

In his report, Professor Parisot spoke of medical assistance from the technical point of view. Dr. Lutrario wished to speak of it from the administrative point of view. What was medical service from this point of view ? It was an essentially public service, and for this reason the State could not ignore it, but must itself be responsible for ensuring its administration. In the administrative domain two questions arose : (1) To what organisation should medical assistance be entrusted ? (2) What were the administrative characteristics of such assistance ?

(1) If it was for the State to lay down the general lines for medical assistance, it could not itself administer that assistance except in special cases. Ordinarily, it entrusted that work to the local organisations (communes) or to the health insurance institutions. In both cases, the rule should be that the State supervises that work.

(2) The administrative characteristics of medical assistance were briefly as follows :

(a) In the first place, medical assistance should be comprehensive — *i.e.*, should cover the whole territory and include the whole population ;

(b) Medical assistance should be compulsory — *i.e.*, regulated by law — and the organisation entrusted with the work must provide such assistance compulsorily.

(c) As regards the nature of the services rendered, it had already been stated that they must comprise medical, surgical, obstetrical, pharmaceutical and specialised assistance.

(d) In rural districts, medical assistance must be rendered at home, the patient calling the doctor to his own house. There were also the monovalent or polyvalent, the general or specialised dispensaries. In serious cases, the patient was sent to hospital.

(e) As Dr. Jitta and Professor Parisot had said, it was not possible to fix the district to be assigned to one doctor, for it depended on local conditions and on the character of the population, dense or scattered, healthy or unhealthy, etc. In Italy *medici condotti* were established in malarial districts during the summer.

(f) It was absolutely obligatory for the doctor to live in the district entrusted to him and not in a large town more or less close at hand.

(g) Who was to bear the costs of medical assistance ? In Italy, a distinction was drawn between the poor and well-to-do. The commune provided the treatment to be given to the former, and the sums paid on this account to the 10,000 *medici condotti* by Italian communes amounted on an average to more than 72,000,000 lire annually. Between the poorer class, however, of the population and the well-to-do there was a middle class which, though unable to pay doctors their full fees, at the same time was not sufficiently indigent to be supported by the commune. Bodies resembling mutual insurance societies and supplying their members with medical assistance covered most of the requirements of this class which would otherwise have been deprived of medical assistance when the *condotti pieni* were abolished. Of recent creation, these societies were constantly increasing throughout the country.

These free associations, known as " Fascist mutual health societies " were a kind of addition to the professional mutual insurance associations based on the corporative organisation. They were officially recognised in the Labour Charter, and it was part of their duty to supply medical assistance.

Both forms of association had, therefore, to be regarded as channels for the operation of medical assistance enabling all classes of the population to benefit by medical treatment, which is for the patient the most essential and most humane form of assistance.

Dr. Lutrario added that all these observations were set forth in the pamphlet which the Italian delegation had had distributed to all the members of the Conference and which dealt with the three subjects on the agenda and with bonification. Finally, as Dr. Bonamico could not be present at the Conference, Dr. Lutrario asked if it would not be possible to appoint as Rapporteur in his stead M. Buttini, engineer, of the Italian Ministry of Public Works.

This was decided.

The PRESIDENT, before calling on Dr. Unger to speak and on Professor Parisot to close the general discussion on the first item, reminded the meeting that, when the general discussion was closed, the committees would have to set to work. Their task would be to draw up conclusions which would subsequently be examined at a plenary session of the Conference.

Mr. UNGER (Germany) thanked the members of the Conference who had recognised the capital importance of the part played by health insurance institutions in the maintenance of health in rural districts. The sickness insurance societies had determined to pursue that task with the greatest energy and to devote all their efforts to it. Dr. Unger had listened with special interest to the statements regarding the work accomplished with a view to the development of medical assistance in the Netherlands and in Spain. There was no doubt that the good wishes of all were with the countries in question in their efforts, and that, in every country, the necessary assistance would be given both in regard to that work and to the work undertaken by the International Labour Office in the same sphere, the health insurance institutions placing themselves at the service of rural health. In regard to village pharmacies, M. Tornel had justly pointed out that such pharmacies could not carry on their work unless the State allowed them grants and free premises.

Mr. Unger was of opinion that, in Germany, that had long applied, not only to the country districts, but also to certain towns. He thanked M. Prohaska for having so strikingly shown the importance of the co-operative movement, which had grouped its members in the two fields, economic and medical. Mr. Unger hoped that, in all countries, employers would note the measures to which reference had been made. Dr. Pelc had rightly said that insurance alone was not enough; it was only recently that Czechoslovakia had introduced the principle of co-operation in that domain. All such achievements might be regarded as the result of the International Labour Conference in 1927, which had expressly recognised the great advantages of such co-operation in the matter of assistance in rural districts. There might be divergent points of view, but what everyone expected of the delegates was that they should adopt certain resolutions dictated by their inmost convictions and laying down what must be done in justice and of necessity in order that the rural populations should benefit by modern health methods.

Professor PARISOT (France) thanked the various members of the Conference for having praised his report more than they had criticised it, and said that this praise should by rights be bestowed on those who had prepared the way for his work, particularly the President of the Conference, who had for some months past directed the preparatory work, and the highly efficient secretary of the Conference, Dr. Boudreau. He would now reply briefly to the various speakers.

In reply to Mr. Unger, Professor Parisot said that he had been particularly interested in his colleague's statement with regard to the intervention of the social insurance funds in the matter of medical assistance in rural districts. He had not been called upon to deal with the question of social insurance, and what he had said was simply on his own account. He would have liked to deal more fully with what he had seen in Germany, and, in particular, with the very remarkable results achieved by means of co-ordinated efforts. The experience which he had gained in Germany had impressed him so strongly that, in organising social insurance in France, he had endeavoured to bring about this co-operation in the area entrusted to him, and collaboration now existed between the associated funds, the health organisation under his direction and the medical profession as a whole, it being understood that each factor retained its autonomy, that the influence of the insurance funds was in proportion to the population in their area, that the financial assistance normally given by the health organisation was to continue, and that the expenses were not to be borne solely by the insurance funds. Those conditions were in accordance with the findings of the Congress of sickness insurance funds held at Dresden in October, 1930.

In reply to M. Andronesco and to Dr. Jitta, Professor Parisot said that he had not been able to enumerate in his report all the bodies whose co-operation was necessary and who obviously included priests, teachers and the various Red, Green, White or Yellow Cross Societies which played such an important part in the Netherlands. All those bodies should help each other and co-operate closely with a view to bringing about the achievement of the final aim, which was to extend insurance to the whole population and to the rural population in particular.

In reply to Dr. Tornel, Professor Parisot thanked his colleague for confirming, on behalf of the powerful body of medical practitioners, what he himself believed to be true — namely, that no sound health organisation was possible, at all events in certain countries, without the co-operation of medical practitioners, which should be sought and encouraged. As Professor of Preventive Hygiene he was called upon to train medical students, and he endeavoured to explain to them what were the purposes of hygiene and what co-operation was required from various bodies.

In reply to M. Vermaire, Professor Parisot said that he knew Luxemburg very well, and had had occasion to visit that country at the request of its health organisation.

In reply to M. Prohaska, Professor Parisot said that he was constantly struck by the influence which could be exercised on the agricultural population by teachers trained as they were at Zagreb, evidence of which he had seen with his own eyes, and he had listened with interest to M. Prohaska's observations on the powerful influence of the co-operative societies.

In reply to M. Santiago, Professor Parisot had already explained why he had not referred at greater length to social insurance. He fully agreed with his colleague as to the necessity of extending social insurance and also of protecting the aged. Various methods were employed in different countries, and in France there was a large number of almshouses and other establishments intended for old people.

In reply to Dr. Pelc, he said that his Czechoslovak colleague had emphasised certain points which would be very helpful to the Conference. If use could be made of the various means available, and of motor transport in particular, health organisation would be greatly simplified and would be less difficult if communications, roads, means of transport and telephones were improved. Consequently, an efficient organisation in these matters was necessary if medical assistance was to be properly organised.

In reply to Dr. Lutrario, he said that the latter had furnished interesting particulars in regard to Italy, whose remarkable organisation, particularly in the matter of rural hygiene was well known. With his high authority, M. Lutrario had stressed the administrative aspect to the problem which he himself had touched on too lightly, and these details would be of the greatest value to the First Committee in its work.

The PRESIDENT said that the general discussion had been most interesting and fruitful. He would repeat that this result was due to the way in which the Committee of Experts, presided over by Professor Konrich, and the Rapporteurs appointed by the Preparatory Committee — Professor Parisot and Mr. Unger — had accomplished their task. On behalf of the Bureau, he thanked all the members of the Conference who had contributed to the discussion of the first item on the agenda and had furnished concrete data. He declared closed the discussion on this first item. He reminded the members of the Conference who were to serve on the First Committee that ample documentary material was to be found in the Preparatory Committee's report (document C.H.1045). On page 50 of that report there was a special chapter dealing with " Sickness insurance as a factor in rural hygiene," which was largely based on enquiries carried out by the International Labour Office.

The special report drawn up by Mr. Unger dealt with a question of the greatest interest to the medical profession. The discussion had been of very great value, and they could congratulate themselves on the spirit of mutual understanding which had dominated that discussion. Whatever suspicions still lingered in the minds of a certain portion of the medical profession, the fact was undeniable, as Mr. Unger had pointed out, that the work of medical assistance among a credulous and superstitious population had produced remarkable results. Owing to the fact that health insurance funds employed only qualified doctors, and, as a result of the propaganda carried out by those funds among the rural population, the peasants in many places had ceased to have recourse to charlatans and quacks, a very dangerous practice which existed in country districts.

Professor Parisot's report would constitute an excellent basis for the discussions in the First Committee. It included a description of nearly every effective method of applying

in practice the broad principles of medical assistance in rural districts. Finally, he would once again urge the desirability of the Committees, after as full a discussion as might be necessary, reaching concrete conclusions so as to facilitate the discussions which would follow at a plenary meeting of the Conference.

FOURTH MEETING (JULY 1ST, 10 A.M.).

Verification of Credentials. — Opening of the Discussion on the Second Item on the Agenda (Health Services) : Statement by Dr. Stampar, Rapporteur ; Speeches by Professor Puntoni (International Institute of Agriculture), Dr. Chodzko (Poland), Dr. Ferguson (Great Britain) and Dr. Johan (Hungary).

President : Professor G. PITTALUGA.

Credentials Committee.

Dr. JITTA (Chairman of the Committee on Credentials) reported that the Committee had met and examined the credentials of the delegates. It had been found that all the delegates had been duly authorised by their Governments to attend the Conference. Some Governments had expressed regret that they were unable to send representatives. The Swiss Federal Council had stated that its delegates also represented the Principality of Liechtenstein.

The Committee had found everything in order and supposed that its work was now terminated.

The PRESIDENT thanked Dr. Jitta and the other members of the Committee for having concluded their work so rapidly.

M. SANTIAGO (Spain) wished to make an observation on the list of delegates. The Conference had been convened by the League of Nations and not by the International Labour Office, though the problem before it was closely connected with social and labour problems. He therefore thought it would have been advisable that the working classes should be represented. The report by the Preparatory Committee had recommended that the Conference should be representative of all the interests involved in rural hygiene. Nevertheless, M. Santiago affirmed that he, as the delegate of the Spanish workers, was the only representative of the working classes. He considered this omission regrettable.

The PRESIDENT said this question did not concern the Credentials Committee. The Conference was not qualified to make observations on the delegates selected by the various Governments, but could merely verify the credentials of the delegates.

While noting M. Santiago's remarks, he regretted that they were not pertinent to the question under discussion.

M. SANTIAGO replied that he did not wish to discuss the choice of delegates, but, as a working-class representative, he desired to register a protest.

The PRESIDENT declared the incident closed.

The Most Effective Methods of Organising Health Services in Rural Districts.

M. STAMPAR read his report (document Conf. Hyg. Rur. No. 1) with the following changes :

Page 5 : The last sentence beginning " It should be obtained. . . . . " was omitted.

Page 8 : The last paragraph beginning " In Yugoslavia . . . " was omitted.

Page 9 : The first three paragraphs beginning " In Poland . . . " and ending " health centres " were omitted.

Page 11, last line : The words " in most agricultural countries " were altered to " in some agricultural countries. "

Page 12 : The first sentence beginning " Such treatment . . . " was omitted.

Page 12, line 9 : The sentence beginning " The economic interest . . . " was omitted.

Page 14, lines 13, 14 and 15, should read " . . . principle, is intended to serve one district. The secondary health . . . "

The PRESIDENT thanked M. Stampar for his excellent report.

Professor PUNTONI (International Institute of Agriculture Rome) submitted his report on anti-rabic dispensaries in Italy. (Document Conf. Hyg. Rur./9.)

Dr. CHODZKO (Poland) drew attention to the decisive influence exercised by the peasant on cultural and economic policy in any country in which the agricultural population predominated. The basic cause of the present world crisis was the feeble demand evinced by the peasant for industrial products, and also the extremely low standard of life and the primitive agricultural equipment of even well-to-do peasants. The adoption of mechanical methods of cultivation would, apart from the resultant economic advantages, ultimately promote a wider knowledge of hygienic and prophylactic principles.

Meanwhile, it was important to study some of the unfavourable factors affecting the health and well-being of country populations. Take rural tuberculosis. In his report issued three years previously on " Rural Sanitation ", he had shown that, in countries like France, Germany, Poland, Switzerland and the United States, the peasants were more and more exposed to the attacks of this scourge. Kellner's study of mortality statistics proved that the agricultural districts of Europe suffered more than twice as heavily from tuberculosis as industrial countries like Belgium, Germany and the United Kingdom. French statistics for 1928 showed that, between the ages of 20 and 39, the mortality from tuberculosis in towns per 10,000 was 28.2 for men and 23.9 for women, as compared with 34.2 and 29.9 respectively in country districts. The tables on pages 28 and 29 of Dr. Stouman's exceedingly valuable report (document C.H. 1052) proved that, in Sweden and Denmark also, mortality from tuberculosis was higher in the country than in the towns. That was a point to which he wished to draw their special attention.

Further confirmation was furnished by the report of Dr. Tomanek on investigations carried out by the Second Medical Clinic of Lwow University in 1,860 cases of peasants and 1,824 cases of town dwellers suffering from tuberculosis. It was found that the gravest and most advanced forms of the disease were twice as prevalent in the country as in the town, due mainly to under-nutrition, physical exhaustion and bad working conditions.

Ergometric tests showed that peasants were physically weaker than town labourers, and that the lack of labour-saving machinery was largely responsible for the physique of agricultural workers being so seriously undermined.

After describing the other forms of tuberculosis prevalent among the peasant population surveyed, Dr. Chodzko suggested that further investigations on similar lines might form a very valuable basis for the organisation of preventive measures among rural populations. They could not be too grateful, he thought, to the State of Saxony for its initiative in this direction — the founding at Pommeritz of the first Experimental Institute for the Hygiene of Agricultural Labour, with the object of rationalising farming operations on a hygienic basis. Schools of Hygiene, too, might help — *e.g.*, by initiating comparative ergometric studies of rural and urban populations and by investigating the problem of the diet of peasants — what quantities and what qualities of their produce (milk, fats, meat, bread) were kept for personal consumption. He proposed, therefore, that a Fourth Committee be appointed composed of the directors or representatives of schools of hygiene present at the Conference to give initial consideration to these suggestions prior to a decision by the plenary meeting.

Before concluding, he wished to draw attention to two passages in the conclusions of Mr. Stouman's report (document C.H. 1052) :

> " (5) Young women in rural districts are in a particularly unfavourable position. This is probably largely due to excessive physical work, the migration of servants and, in some countries, inadequate maternity care.
>
> " The health of young women in rural districts is of particular importance, since they, with their higher fertility, become the mothers of the greater part of the nation.
>
> " (6) Tuberculosis generally causes a higher mortality amongst young women in rural districts than in towns."

It was an extraordinary situation, and he directed their attention to its graphic representation on the two maps prepared by the Health Section and hanging on the wall of the Conference room. They would note that the birth rate all over Europe was steadily decreasing ; women in the towns did not want, and country women were physically unable, to bear children. It was peremptory therefore to make every effort to restore the health of the countryside if the supply of human material for the towns was not to be totally exhausted. M. Gunnar Jahn, of the Norwegian Central Statistics Office, quoted on page 30 of Mr. Stouman's report, indicated another peril to be combated when he referred to the fact that " servant girls from rural districts constitute one of the essential elements in the propagation of tuberculosis " — a fact fully confirmed by the Swiss investigators, M. Gigon and M. Künzler.

Dr. Chodzko, in conclusion, reminded his hearers of the ideal type of country doctor depicted by Balzac in his *Médecin de Campagne*, who held that " *l'avenir, c'est l'homme social, nous ne voyons plus rien au delà* ". The Conference, he felt, was an embodiment of the public mind of Europe, which would, he hoped, speedily transform the face of their continent to the supreme benefit of all concerned.

The PRESIDENT thought the Conference would be glad to adopt Dr. Chodzko's suggestion to set up another Committee to examine certain fundamental questions regarding the epidemiology of rural populations. A proposal would be submitted by the Bureau at the afternoon meeting and he would be glad if subsequent speakers would give their opinion on Dr. Chodzko's suggestion.

Dr. FERGUSON (Great Britain), speaking as the responsible health officer of a typical English county, desired to comment briefly on Items 1 and 2 of the Conference agenda.

The problem of providing effective medical assistance for rural communities was essentially an economic one. It implied a desire for such service and a willingness to pay for it on the part of those concerned. Such a desire could be stimulated by judicious and informed propaganda. Properly qualified general practitioners were the second essential for the effective prevention and treatment of disease, because out of treatment arose the desire for prevention. The provision of such practitioners and of the other auxiliary services, such as nursing, midwifery, hospitals, etc., might best be discussed in the Committees.

A third essential was that all public and voluntary services benefiting the community should work in co-operation. These services included, in England, women's institutes, voluntary hospitals, voluntary nursing associations, ambulance associations, national health insurance, veterinary services, etc.

On the question as to how the principles above enumerated could best be put into execution, he believed the Conference should confine itself to recommendations defining the ideal to be aimed at. Dr. Stampar's report had wisely emphasised the advisability of not interfering with national administrative systems adapted to the special cultural, economic and social conditions of a people. Furthermore, the problem to be solved varied in different countries, so that it would be a mistake for the Conference to lay down hard and fast rules. Their object should rather be to define general principles and leave each country to settle the details of its own administration in the light of the guidance afforded by the Conference proceedings and documentation.

In England, administration was decentralised as far as possible, thereby enabling local interest and co-operation and local financial resources to be secured. General health policy was framed by the Ministry of Health, which co-ordinated the action of the various local authorities, stimulated those more backward to attain a certain minimum level, and supplied any advice and information necessary. The actual administration rested with the local authorities which were county councils, borough councils and urban and rural district councils. County councils were mainly responsible for school medical, maternity and child welfare, tuberculosis, venereal and veterinary services, while district councils usually dealt with such questions as housing, sewerage and water supplies. In addition, county councils were responsible for poor relief, hospital and domiciliary medical services for the poor and private homes for young children and the aged and infirm.

The co-ordination of the county council's medical services was effected by the county medical officer, with the help of the necessary medical, technical and clerical staff. It had recently been enacted that no medical officers of health could engage in private practice.

He agreed with the Preparatory Committee's proposal that, even where decentralisation existed, the State should still be responsible for general health policy and have the right to supervise its execution and to insist on deficiencies in local health services being remedied.

Neither the Preparatory Committee's report nor Dr. Stampar's statement explained who was to establish and finance primary and secondary health centres, and what was their exact relation to local government authorities. In England, such centres were created and maintained by the local authority, which directed their policy ; they all aimed at having voluntary local committees to take an interest in their activities and supplement either in service or in money the official activities maintained. While providing facilities for advice and consultation, such centres left treatment (with certain exceptions) to the general practitioners. The exact types of centres in Dr. Stampar's report would not fit into English Government administration.

He wished to stress the importance of such voluntary and consultative committees, official and un-official, and to testify to the value of their work. English counties, for

example, possessed official committees of the governing bodies and the medical and surgical staffs of the voluntary hospitals, whose advice had to be obtained before the local authority arranged for any additional hospital accommodation. There also frequently existed unofficial liaison committees representing the medical profession which county medical officers found it extremely valuable to consult.

Dr. JOHAN (Hungary) thought the question now being discussed was the on out the three on the programme of the Conference for which it would be most difficult to find a unanimous solution. Countries like Hungary, which had hitherto been concerned chiefly with on the programme of the Conference for which it would be most difficult to find a unanimous solution. Countries like Hungary, which had hitherto been concerned chiefly with problems of urban hygiene, anticipated that the proceedings of the present Conference would constitute a very valuable guide in organising rural health services. Conditions in towns differed greatly from those in villages, and the problem should therefore be considered as distinct.

He would like to submit some observations regarding items 1 and 2 of the agenda. He agreed with Dr. Ferguson that the question of organising public health work in rural areas has a very important economic side too, and, when such work had to be organised in Hungary, the question of economy would certainly be examined also. As regards staff, it was very important, particularly in the case of primary health centres, to attach to it the work of general practitioners. In Hungary, primary health centres were established in the rural communes, and the village doctor was put in charge. In such case, the village doctor must have had special training in preventive and public health medicine, a question, he thought, which required to be studied. As regards auxiliary staff in rural districts — health visitors, nurses, midwives — he thought that social workers should be added to this list, particularly in impoverished rural districts and social problems should also be included. In Hungary, the control of the social institutions is entrusted by law to the health officer. The problem of combining the activities of one or more of such auxiliary workers in a rural district was rather complicated, but should be studied. Midwives, for example, were not so fully trained that they could take the place of nurses. In Hungary, they had a system by which midwives were given supplementary training to enable them to take the necessary action pending the arrival of the qualified nurse. It was easier to combine the services of bedside and public health nurses by giving the latter, as a basis, training in bedside nursing. This would qualify them to instruct members of the family in the care of the sick. Hungary had not yet found it possible to organise systematically public social welfare activities in rural districts, but steps were now being taken in this direction, and for this reason co-operation with voluntary agencies was being organised.

He thought Dr. Chodzko's idea of creating a Fourth Committee to co-ordinate the work of schools or institutes of health in connection with the rationalisation of rural public health work an excellent one, the more so as, where such schools (institutes) existed, as in Hungary and Yugoslavia, etc., they were entrusted with the supervision of rural health work. Hungary, for instance, might possibly be able to supply interesting data on the question of the food of agricultural workers.

FIFTH MEETING (JULY 1ST, 3.30 P.M.).

Continuation of the Discussion on Item 2 (Health Services). — Speeches by M. Sarraz-Bournet and M. Vimeux (France), Dr. Lutrario (Italy) ; Dr. Kacprzak (Poland), Dr. de Buen (Spain), Dr. Vasile (Roumania), Dr. Canal-Comas (Spain), Dr. Miemietz (Germany). — Proposals to set up a Fourth Committee and to convene a Meeting of the Directors of European Schools of Hygiene. — Resumption of the Discussion on Item 2. — Speech by M. Prohaska (Czechoslovakia).

President : Professor G. PITTALUGA.

Discussion of the Second Item on the Agenda.

M. SARRAZ-BOURNET (France) stated, on behalf of the French delegation, that, on the whole, he could subscribe to the conclusions of Dr. Stampar's report.

Primary and secondary health centres such as Dr. Stampar had described existed in France under other names. The details supplied by the Conference of Experts and the indications given in the report would make it possible to improve the work of such centres in accordance with the main lines of the plan put forward.

As regards rural sanitary equipment, France also had a fairly advanced organisation. the details of which would be given to the Conference during the discussion of item 3 on the agenda.

There was, however, in Dr. Stampar's report one point on which France must make certain reservations.

If the Conference was to be successful, the recommendations proposed should be unanimously accepted, and it would be advisable to make allowance for local ideas and the methods of collaboration which had been gradually established in the various countries between the public and private institutions dealing with problems of health organisation in rural districts. Whereas in certain countries they were building from the foundations upwards, in others it was necessary to take into account institutions already existing, which were more or less complete and more or less satisfactory, but which could be improved.

The organisation of rural hygiene in France was not ideal. Legislation was still imperfect, and much had yet to be done to bring it into line with the progress of science ; nevertheless, for medical assistance and health work, France could count on the help of doctors of exceptional skill practising in rural districts. These doctors made their living by private practice, but nevertheless co-operated actively with the public institutions. French law was very liberal in this respect and only rarely allowed doctors to be officials also. The law on social insurance stipulated freedom in the choice of the doctor, and there were very few exceptions to that rule : departmental, dispensary and laboratory doctors, and doctors of the maritime sanitary service. A practising physician in France was never an official. The only exception was colonial doctors, who practised outside France itself under special conditions and among very primitive races with which no European population could be compared.

The French delegation must also make reservations regarding that portion of Dr. Stampar's report dealing with the part played by health centres in the treatment of

the sick. The delegation considered that such centres could only be called upon to treat the sick or injured in exceptional cases, if the number of practising doctors were insufficient, or in an emergency.

Without prejudice to the proposals of the Committee concerned, France would like to ask for the inversion, as it were, of Dr. Stampar's formula, so that treatment by the centre should be the exception rather than the rule.

Such an amendment would, moreover, make it possible to take stricter account of the varying conditions prevailing in different countries.

Apart from that reservation, France felt much satisfaction at the valuable opportunity for exchange of information at the Conference on Rural Hygiene, and considered that it would now be feasible to present, in the fight against disease and social evils, a united front in which the public authorities, the medical profession, social insurance institutions, agricultural organisations, voluntary societies and the population itself would all join together.

The PRESIDENT took note of the reservations made by theFre nch delegation and of the fact that these in no way prejudiced the decisions of the Committee.

M. VIMEUX (France) felt that he should explain to the Conference, on behalf of the agricultural social insurance organisations, the declaration appearing on page 34 of the Preparatory Committee's report. The representatives of the social insurance friendly societies had gone to the Committee with some apprehension and desired to define their position as a matter of caution. The representatives of the mutual aid societies were fully satisfied, and Dr. Stampar had interpreted the opinion of their representatives perfectly. Although it was true that the friendly societies were autonomous organisations, they could not dispose of their funds without regard to the opinion of those who had supplied them. They were none the less determined to give their co-operation and assistance with a view to securing the best possible results.

The experts report, page 22, and that of the International Labour Office, page 59, accurately expressed the opinion of the representatives of those societies ; but on all points M. Vimeux considered that Dr. Stampar's report gave complete satisfaction to the societies.

They were particularly grateful to Dr. Stampar for having noted the assistance which the agricultural co-operative associations could give in the matter of propaganda among the rural population and to Mr. Unger for defining the part played by the social insurance institutions.

Dr. LUTRARIO (Italy) thought that the spirit of conciliation and moderation which actuated Dr. Stampar and other speakers had greatly simplified the difficulties inherent in the manifold and complex problems connected with item 2 of the agenda.

At the beginning of his report, Dr. Stampar had rightly pointed out " that most countries have public health organisations of long standing with definite traditions and a definite system of their own ". Such organisations had proved their worth and in common fairness could not be ignored.

Dr. Stampar's report gave a clear, if summary, picture of two systems of health organisation in European rural districts.

He had described the British system, known as the " County Health Unit Plan ", which consisted of making one health officer (medical officer) solely responsible for all health work in the county. The same system had obtained in Italy ever since the Basic Law for the Safeguarding of Hygiene and Public Health of December 22nd, 1888. The health officer, as he was known in Italy, was the mainspring of the health organisation. He constituted in his own person the first grade in the health hierarchy, and was the

dynamic inspiration of every small rural health office. It was his duty to supervise hygienic and sanitary conditions, to inform and assist the communal *Podestà* on everything connected with the hygiene and health of the population. He also drew up periodical reports on the sanitary conditions in his district. Though paid by the municipality, he was appointed by the prefect, and thus invested with the dignity and authority of a Government official. He had charge of the staff of district health services and had at his disposal an isolation post and disinfecting appliances.

The more populated and the larger the commune, the greater was the importance of the health officer. The small health office was expanded according to requirements. The staff — doctors, veterinary surgeons, in some places an engineer, and frequently the inspectors known as *vigili sanitarii* — were more numerous.

In larger rural districts, the health offices had departments for the preventive treatment of infectious diseases, for school hygiene, for housing and soil hygiene and for the hygiene of foodstuffs. The casual isolation post became a real hospital for infectious diseases. Disinfection was allotted a special department to itself ; there were dispensaries for special and general purposes, which acted also as centres of diagnosis, a hospital for ordinary diseases, and, in certain districts, sanitary stations. Every province had a provincial laboratory with micrographic and chemical sections working in co-operation with other laboratories in large communes, hospitals, voluntary institutions, etc.

The special features of the Italian system were :

(1) Health officers were not confined to a ew centres, but could be found everywhere, even in the smallest villages ;

(2) The extent and importance of the equipment at their disposal were proportional to the actual requirements of the districts ;

(3) The special legal status, owing to his functions, of the health officer who, though attached to the district, had the authority of a Government official.

In this connection, he must correct a misunderstanding. It should not be imagined that in small rural communes the *medico condotto* must necessarily be a health officer. On the contrary, the two duties were quite distinct, though they might occasionally be discharged, with the prefect's special permission, by the same person. This permission, however, lapsed, opere *juris* as soon as the two offices could be separated.

Once the position of the Italian health officer, with his auxiliaries in the form of relief personnel, health bureaux, and health and preventive institutions, were properly defined, a clear idea could be formed of the country's health organisation. Health offices were co-ordinated and worked in liaison with the provincial health organisation, which in its turn co-operated with the central authorities. The whole was interconnected and co-ordinated under one supreme centre, with a progressive subordination whichw as not, however, such as to deprive the minor authorities of their proper functions or of their independence. The system was divided into four distinct grades :

(a) The directing authorities : the Minister of the Interior with the prefects and the *Podestàs* subordinate to him ;

(b) The executive authorities : the General Administration of the Health Services, the provincial doctor and the health officers ;

(c) The advisory authorities : the Supreme Health Council and the Provincial Health Council ;

(d) The research institutions : the central Government laboratories, the provincial laboratories and the communal laboratories in certain towns.

It was a kind of army drawn up in battle order, with one single front, but with each unit preserving its independence within the general scheme.

Priority had been given by the Government to restoring rural health, and the first step in the campaign was the Mussolini Law on comprehensive bonification. The purpose of the law, which was being fully applied throughout the country, was not merely to improve the land, but to colonise the reclaimed tracts, to ameliorate the health and the well-being of agricultural workers by means of model villages, sanitary farmhouses, water supply, drainage, schools, etc. This would all be discussed in the Third Committee, and members could obtain information also from the publication which had just been circulated : " Sanitary and Health Services in Italian Rural Districts and ' Integral Bonification ' " (document Conf. Hyg. rur. 13, published by the Italian delegation).

In conclusion, he would like to say a few words on one department to which the Government devoted particular attention — *propaganda*.

It must be admitted that the modern peasant no longer resembled his predecessor. He had acquired more self-respect and personality, and was fully aware of the part he played in the national economy. He read newspapers and took an interest in politics. His knowledge of sanitary requirements, however, was usually rather limited. Generally, he paid very little attention to the quality of his drinking water or food supplies, to the presence of flies in his house or to the dangers of malarial districts.

The Government was combating this carelessness and trying to arouse the peasant to a sense of the danger of neglect in those matters. To start with, intensive propaganda was carried out in primary schools, the idea being that the pupils would preach compliance with certain rules at home. The tidiest children were given prizes consisting of small cases containing pieces of soap, a toothbrush, underclothing, etc.

In Tuscany, he had personally observed the extraordinary results obtained from this form of propaganda by that great public health specialist, the late Professor Sclavo. This propaganda followed the younger generation as they grew up. There was first the *Opera Nazionale Balilla* (National Balilla Movement), then the *Opera Nazionale Dopolavoro* (Workers' Sports Clubs), and a whole system of libraries, lecture campaigns, etc., among which mention should be made of the " Chariot of Thespis, " which travelled from village to village giving performances by good actors of the classics and trying to develop a taste for the beautiful and the artistic among the rural population. The benefits afforded by the educational cinema and rural broadcasting were also increasing steadily. Another very interesting form of propaganda initiated by the Head of the Government himself was *the wheat motor-train*, which, with its staff of popular lecturers, visited village after village trying to inculcate a love for the wheat from which bread was made — wheat, which M. Mussolini called the *gloria dei campi*, *fragranza della terra*, *festa della vita... Il più santo premio alla fatica umana*.

Under all these beneficent influences the peasants were gaining better understanding of hygiene and frequently demanded sanitary improvements of their own accord — a happy omen for the regeneration of the countryside.

Dr. Kacprzak (Poland) pointed out the importance of education for rural hygiene. Although in large communities the municipality could itself always provide adequate sanitation, in the rural districts it was necessary to appeal to the population. Moreover, urban districts were richer and had much more political influence than rural communes, and the level of education was higher. The peasant was conservative, and distrusted new ideas. Nevertheless, without his goodwill no results could be hoped for. Only on the spot and within the limits of his own environment could the peasant be convinced of the benefits of hygiene ; even so, hygiene must be adapted to the conditions of rural life.

Dr. Kacprzak recalled his impressions of a tour in northern countries ; he referred to the Danish peasant, whose comparative poverty did not prevent very meticulous

hygienic precautions. Dr. Kacprzak had heard in Denmark that the best propaganda in that country had been due to the dairies. For butter to be exported to the best markets the buyer had to have a guarantee of the perfect purity of the produce supplied to him. The peasant realised that it was to his advantage to keep his animals clean and to protect his milk from any contamination ; if it was good and wholesome, a better price could be obtained for the dairy produce. The proverbial cleanliness of Holland could be partly ascribed to the production and sale of foodstuffs in that country and the necessity, for instance, of inspecting meat, etc. The Polish delegate pointed out that in all countries where progress had recently been made — such as Yugoslavia — the same method was employed — namely, presenting the health side of measures of hygiene in relation to their financial aspect. The peasant must be convinced that hygiene paid.

Governments, on the one hand, and peasants, on the other, were more willing to make sacrifices for the veterinary organisation than for the assistance of human patients ; in most agricultural countries the peasant built his stable before his house.

Rural health propaganda found its best auxiliary in the practising doctor, who had the confidence of the family and whose advice was readily accepted. This did not always apply to official health officers, who were sometimes unpopular on account of decisions taken for the public benefit which ran counter to certain individual interests. It was none the less necessary for the country practitioner to have sufficient training in rural health work. Moreover, a most effective part could be played by educational institutions. The teaching of hygiene should be compulsory. The teacher should be responsible, not only for the intellectual development of his pupils, but also for the improvement of their ideas of hygiene and even their physical development. It was during the period between childhood and adolescence that it was easiest to instil habits of the greatest value for the future. In Poland, special courses in hygiene had been organised for primary teachers.

The influence of priests in regard to measures of hygiene had been mentioned. Dr. Kacprzak did not deny that influence, but no conclusive result had as yet been obtained.

In Poland, active propaganda was going on especially among doctors, the clergy and teachers, as well as through the numerous active agricultural and dairy co-operative societies. The women's section of the agricultural associations had for the last three years been organising competitions in the hygiene of rural housing. Special lectures were given on the spot to peasant's wives. After the course, the audience was asked to enter for the competition and a simple handbook was distributed explaining what must be done to make the rural home healthy. The competition lasted for four summer months, during which the woman inspector, sometimes accompanied by the district health nurse and the district doctor, visited all the houses of the competitors at least three times. At the close of the test period, the most careful housewives — those who had shown the greatest improvement in the management of their homes — obtained prizes, which generally consisted of some household utensil. The number of entrants in this competition rose from 352 in 1929 to 670 in 1930 and over 1,000 in 1931, which showed the value of such propaganda.

Dr. DE BUEN (Spain) referred to the great difficulty of making definite rules in regard to rural hygiene ; methods must vary according to the country. One of the most essential points was to organise assistance in rural districts where there was none. In Spain, rural medical assistance was optional but very widespread. On an average, there was one doctor to a thousand inhabitants, and even, in certain districts with a sparse population, to less than a thousand inhabitants. It followed that these doctors must be helped if their co-operation in matters of hygiene was desired.

Rural assistance in Spain began with the creation of provincial health institutions, which had been maintained from the outset by a compulsory contribution from all the small towns. For some time a " Committee of Mayors " had been concerned principally

with their activities from the economic standpoint. That constituted the first start towards co-operation. Nevertheless, at the outset, such health services consisted only of laboratories for disinfection, and were concerned with the transport of patients to specialists by motor-car, etc. It was soon perceived that that was not the only end to be pursued, and epidemiologists were appointed. The first of these had to go from village to village every time a special problem arose. Since then, health and social instruction had been given to the provincial health authorities, and there were now a large number of services of this kind which constituted veritable rural health centres for tuberculosis, syphilis, etc. Each provincial health centre constituted a centre for the training of doctors. Rural doctors followed more or less advanced courses of instruction in the principles of hygiene. They were now willing even to follow a short special course in hygiene before receiving the title of " medico-titular ", which was more or less equivalent to the Italian *medico condotto*. Such doctors went into the villages ; they received payment for assistance to the poor, which was given free in all rural districts in Spain. They also obtained some remuneration for minor health work. Such health work at present consisted of the compulsory notification of infectious diseases in the villages. The rural doctors were also asked to co-operate in minor sanitary work — for instance, with regard to malaria. A large number of rural doctors were in possession of microscopes bought by the communes or by the anti-malaria services ; they carried out minor tests, vaccinations, etc. In that connection, Dr. de Buen mentioned that the mortality from smallpox, which had made great ravages in Spain some years ago, had now fallen to zero.

In Spain noteworthy attempts were being made to educate the rural population by example. In connection with irrigation works, railway construction, etc., specialists went to the spot — not only in villages, but where there were no villages — and the rural population could see the work done by them for itself. Such methods had given good results in the education of the rural population.

A start had also been made with the creation of secondary centres, supported by municipal, provincial and State subsidies.

As regarded propaganda, much was being done through the cinema, pamphlets, lectures, etc. These were excellent means in the more thickly inhabited areas, but most expensive in thinly populated rural districts. There, concrete examples were better. The following was the procedure in the anti-malaria campaign : A malarial centre was selected in a rural district ; a small health service station was established, often of the simplest order ; the peasants, more accustomed to observe natural phenomena than to read, did not fail to realise the results of the work of the little local centre thus established. The population could thus be educated rapidly, not only in the locality where the centre was set up, but over a fairly wide area. This system promoted the subsequent introduction of more important measures. A study of this question in districts infected by an important but easily preventable disease would present great interest. Even in the remotest districts, the inhabitants became accustomed to the doctor's visits, and the way was thus prepared for more extensive health measures.

The anti-malaria campaign in Spain had resulted in the conversion of a great number of these primary anti-malaria centres into secondary centres.

Dr. Vasile (Roumania) thought that remarkable proof of the interest taken in the health problem of the present day was provided by the Preparatory Committee's report and the breadth of the discussions which had taken place. He much appreciated the Rapporteurs' work, and thanked the Health Organisation of the League for summoning the Conference, for which the Secretariat had prepared so carefully.

Though the spirit was willing, internal conditions in Roumania had unfortunately only allowed the practice of the more advanced ideas for some fifty years past ; every

effort, however, was being made to catch up with other nations. The present economic crisis had forced Roumania to modify her policy, hence she had been obliged to abandon free medical aid, hitherto traditional. Roumania was essentially an agricultural country, and the problem would, it was hoped, be solved by means of compulsory insurance for agricultural workers. The rural hospitals, like the national health organisation, were State administered, and the communal doctors, paid by the communes, were State appointed and supervised. These hospitals acted as dispensaries. Each health district was about equivalent in area to an English county. The district medical officer was assisted by a varying number of subordinate health officials and midwives. The average population of a district was fifteen to thirty thousand. Unfortunately, unfavourable conditions, such as distance, insufficient pay, lack of means of transport, etc., hindered the work of doctors, who were forced to engage in private practice.

In the Committee, Dr. Vasile would give further details of the districts health organisations, especially as regarded recruitment of staff and the advantages and drawbacks of the Roumanian system. Until 1910, the district medical officer had been obliged during his epidemiological enquiries himself to seek out the sick persons in each village ; such a system did not give very good results. The establishment of general dispensaries, either at the doctor's place of residence or in some other place at which he attended on a certain day, marked a real step forward in rural hygiene and in the development of health centres in the direction indicated by the Rapporteurs. Demonstration centres already existed in three country districts and served to train health officers and students.

He was glad to express appreciation of Dr. Stampar's work in Yugoslavia, which he had been able to admire at first hand during the interchange of rural hygiene specialists. He thanked the Spanish Government for promoting the present Conference and the Chairman for his able guidance.

Doctor CANAL-COMAS (Spain) considered the second item on the agenda the most important from the point of view of his delegation, which represented practically the whole body of Spanish doctors working in rural areas. The organisation of rural health centres was of fundamental importance in the improvement of health conditions. Generally speaking, the Committee of Experts, the Preparatory Committee and the Conference shared this view, which was expounded in Professor Parisot's and Dr. Stampar's reports. The latter contended that the co-operation of the population in country districts must be won in order to achieve decentralisation of the health service and to entrust this to the local authorities without, however, depriving the State of its powers of direction and control. This was, for most countries, too idealistic, especially in cases where local conditions such as general education, the state of communications and other elements of country life were not very highly developed. It would thus be impossible to base health organisation upon this idea alone. The primary health authority in Spain had, up till now, been the Mayor of the commune presiding over what was called the " Local Health Board " *(Junta)*. This system had yielded varying results as regards the improvement of public health. Spanish doctors considered that the establishment of permanent centres in country districts was too complicated an undertaking to yield satisfactory results. The Spanish health officers had proposed the establishment of permanent centres under the direction of the municipal health inspector in all districts too thinly populated to ensure the livelihood of a resident doctor without State aid. They also proposed the establishment of local primary health centres run on very simple lines. These centres, which were already working in several places, also undertook — quite apart from treatment — diagnostic research for purposes of medical assistance in general. The primary centre was the elementary but fundamental nucleus of rural health organisation. The secondary centre, on the other hand, should be as highly developed as possible in both its sanitary and its medical branches if it was to

render real service to the work of co-ordinating and directing the organisation of rural hygiene.

Dr. MIEMIETZ (Germany), speaking as a country doctor, thanked the Health Section and the Committee for consulting private practitioners, and notably country doctors, when preparing the first item on the agenda. This procedure had avoided the mistake previously made by more than one country in leaving the framing of draft laws to politicians, jurists and theorists without consulting experts with practical training, which had led to inapplicable or harmful laws. If the work of organising rural hygiene were to succeed, practitioners must co-operate with the public authorities, and health and social insurance institutions. Professor Parisot's report and Mr. Unger's speech on the previous day had stressed the fact that such co-operation was indispensable.

The first and second items on the agenda were both of interest to practitioners. In the first place, it was dangerous to give health measures and preventive medicine greater importance than the actual medical treatment of the rural population ; the former should not be exaggerated at the expense of the latter. A second essential point, which had given rise to profound differences of opinion when the recommendations and decisions were being discussed and framed, must also be considered. Was it right and necessary to put health measures and preventive medicine in one class and treatment in another ? On the contrary, was it not abnormal that the drawing of this distinction had led to the existence of two quite separate categories of doctors ? It seemed impossible to come to a decision *a priori*. An empirical point of view could perhaps be attained after examination of the situation in Europe. In most European States treatment was given by private practitioners, whilst the public health services were responsible for health measures and social welfare. On these lines, many European countries had achieved an entirely satisfactory method of promoting the health and medical treatment of the rural population. Health insurance societies, certainly those for agricultural workers, had never questioned the fact that actual treatment was the private practitioner's province. Consequently, the private practitioner was the best doctor from the patient's point of view. There was a bond of confidence between them which was the best means of ensuring a cure. The practitioner must have the best possible training, must belong to a class distinguished by its high moral character, and must consider his profession, not as a trade, but as a service in the interests of public health. The great majority of European practitioners fulfilled those conditions. The health officer had at least as many qualities as the practitioner, but he was responsible to the authorities, who might frequently hamper him in his purely medical work and were sometimes even obliged to do so, since the good of the individual did not always square with the interests of the community as a whole.

As regarded Dr. Stampar's report, he was almost entirely in agreement with Dr. Ferguson's statements. The Committee's work upon the second item on the agenda had been especially difficult, and the scheme of organisation deserved general admiration. Dr. Stampar's work in his own country, carried out under the most difficult conditions, could not be too highly praised. That work had, however, been performed in exceptional circumstances and could not be extended to other countries.

The foregoing remarks explained Dr. Miemietz attitude regarding health centres. He fully supported the statements made in the Committee's printed report (pages 18 to 24 of the English text) and Dr. Stampar's general statements. That organisation played the part which is elsewhere allotted to secondary health centres.

On the other hand, it was not possible to give effect to the proposal that all countries should undertake the organisation of primary centres ; Germany certainly could not do so. There the task, when not undertaken by the secondary centre, was carried out by each individual doctor within his own place of practice and by the auxiliary medical staff

in co-operation with the secondary centre, the health insurance funds, and private social welfare societies. This co-operation between all the factors concerned had made it possible to provide satisfactory health measures and medical treatment for the rural population of Germany.

Proposal to set up a Fourth Committee of the Conference, and Proposal to convene a Meeting of the Directors of European Schools of Hygiene : Draft Resolution submitted by the Bureau.

The PRESIDENT said be thought the discussion had now reached its climax. The representatives of powerful associations of medical practitioners had expressed their anxieties — quite apart from any material interests — regarding the relationship between medical assistance and the organisation of health centres in rural districts. That relationship was so important that the Conference had constantly had in mind the necessity for agreement on this subject, even though this desire had not always been expressed in so many words. Dr. Chodzko had made a suggestion at the previous meeting which might perhaps meet the Conference's wishes, and on the President's proposal the Bureau presented the following draft resolution (document Conf.Hyg.rur./18) :

> " The Conference decides to set up a Fourth Committee on 'international rural hygiene studies', which, after examining the various proposals made by the delegations and in the report of the Preparatory Committee, will submit to the Conference for approval the questions to be studied under the auspices of the League of Nations.
>
> " The Conference also asks if the League of Nations Health Organisation would convene a meeting of the directors of European schools of hygiene during the Conference, to consider to what extent these schools might undertake certain of the international studies to be recommended by the Conference, and to make suggestions to the Fourth Committee on this subject. "

M. PROHASKA (Yugoslavia) stated, with reference to the proposal, that a meeting of the directors of European schools of hygiene should be convened, that he had had wide experience of agricultural questions and might therefore be able to make some useful suggestions. He asked whether other persons besides the directors of schools of hygiene would be allowed to attend the proposed meeting.

The PRESIDENT explained that the proposed Fourth Committee would include any members of the Conference who wished to join in its discussions. The Bureau had also thought it desirable to convene a meeting of the directors of schools of hygiene, to consider technical points and to ensure that the two meetings would keep in touch with one another. The Fourth Committee would submit to the directors of the schools of hygiene suggestions on the work to be carried out and the directors, in their turn, would give any explanations needed by the Fourth Committee. The proposal was intended to facilitate the Conference's work.

Resumption of the general discussion.

M. PROHASKA (Yugoslavia) stressed the necessity, already emphasised by Professor Parisot, for co-operation and co-ordination. Perhaps the members of the Conference had noticed that Dr. Stampar had said very little of co-ordination in Yugoslavia between

the work of the health authorities and the health co-operative societies. This, however, existed. From the beginning of the health co-operative movement, a special law had provided State subsidies for it. This law made provision both for the liberty without which a co-operative society could not exist and at the same time for the co-ordination of the work done. The Health Institute at Belgrade had been especially active, creating co-operative schools of hygiene, for which the co-operative societies themselves chose the pupils. This choice obviously led to the enlisting of excellent recruits. An effort had been made in Yugoslavia to work always in co-ordination with the local authorities. The principles thus adopted, which M. Prohaska summarised, were dealt with in detail in a pamphlet which had already been distributed to the members of the Conference in English, and the French text of which would be ready shortly. In conclusion, he agreed with his Hungarian colleague that a village should be considered as a separate entity and should not be treated as a small town.

Work of the Conference.

The PRESIDENT adjourned the general discussion on the second item on the agenda. As regarded the third item, the reports on the question of sanitation in rural districts were so technical that it would be better to refer them direct to the Third Committee. Thus no general discussion on item 3 of the agenda would take place in plenary conference.

SIXTH MEETING (JULY 2ND, 9.30 A.M.).

Draft Resolution (Fourth Committee and Meeting of the Directors of Schools of Hygiene) : Speeches by M. Gautier (France), M. Pelc (Czechoslovakia), M. Jitta (Netherlands), Dr. Lutrario (Italy).— Continuation of the Discussion on Item 2 (Health Services and Centres) : Speeches by Dr. Konrich (Germany), M. Andronesco (Roumania), Dr. Ismaïl (Turkey), M. Pallis (Greece), Dr. Berry (Irish Free State), Dr. Garcia Tornel (Spain), Dr. Spaas (Belgium), Dr. Kolar (Czechoslovakia) ; Reply by Professor Stampar (Yugoslavia).

President : Professor G. PITTALUGA.

Draft Resolution (document Conf.Hyg.Rur./18).[1]

M. GAUTIER (France) said the draft resolution provided for two different committees — namely, a fourth committee of the Conference and a meeting of directors of schools of hygiene during the Conférence.

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[1] The draft resolution was as follows :

" The Conference decides to set up a Fourth Committee on international rural hygiene studies, which, after examining the various proposals made by the delegations and in the report of Preparatory Committee, will submit to the Conference for approval the questions to be studied under the auspices of the League of Nations.

" The Conference also asks if the League of Nations Health Organisation would convene a meeting of the directors of European schools of hygiene during the Conference, to consider to what extent these schools might undertake certain of the international studies to be recommended by the Conference, and to make suggestions to the Fourth Committee on this subject ".

With regard to the latter meeting, it was evident that numerous eminent representatives of the schools of hygiene were present at the Conference, and it would be of great advantage if they met in a private meeting outside the Conference. There was no objection to such a meeting. The League could at any time call such representatives together, and it would be advisable to take advantage of their presence in Geneva.

With regard to the Fourth Committee which it was proposed to set up, he thought this committee might select the most important ideas expressed during the discussion and, after examination, draw up a programme of future work for submission to the Conference. Such a committee would, for that purpose, draft a series of resolutions. If the Fourth Committee proposed in the draft resolution was of that character, he agreed to the suggestion.

With regard to the composition, the President has stated that any member of the Conference could take part. M. Gautier did not quite agree with that view. He thought such a committee would have to work rapidly, since it would have to report to the Conference, whose meetings could not be prolonged indefinitely. He therefore thought that the committee should consist of only nine or twelve members.

He took the opportunity of replying to M. Santiago's remarks of the previous day regarding the composition of the various delegations to the Conference. He was not in a position to speak in respect of other countries, but, with regard to France, the delegates represented all branches of the agricultural interest without distinction. The delegation included doctors, health officers, administrators and representatives of agricultural societies. He regarded the last-named as of great importance, especially in respect of propaganda for health work.

Returning to the question of the proposed Fourth Committee, he suggested that the President and Bureau of the Conference should draw up a list of some nine or twelve members who should form a resolution committee for rapidly considering the most important questions which arose. He thought the Conference should not be too ambitious. It would, he hoped, meet again, and it should therefore now deal with a small number of essential questions. In this case, he thought the Conference would render valuable service to public health, agriculture and mankind.

M. Pelc (Czechoslovakia) agreed to some extent with M. Gautier's remarks, although his attitude was somewhat different. Public health was not only a question of finance and goodwill, but was also largely a question of knowledge. What was badly needed was research in questions of rural hygiene. He thought Dr. Chodzko's suggestion was a good one, as it aimed at encouraging such research work. It was not often that so many experts met together, and such an opportunity should not be lost. He would be glad if the proposed committee could consider a programme of research work.

He had no remarks to make regarding procedure, and thought that could be left to the President and the Bureau, who would no doubt be able to reconcile M. Gautier's view with that of Dr. Chodzko.

Dr. Jitta (Netherlands) agreed with M. Gautier regarding a resolution committee. With regard to the proposed meeting of the directors of schools of hygiene, he had no objection. All countries were not, however, in the fortunate position of possessing such schools, though they were interested in such questions. He therefore suggested that the meeting should include other competent persons from countries which did not possess such institutions.

Dr. Lutrario (Italy) understood that the Fourth Committee would be a kind of drafting committee, which would extract from the discussion all subjects of international interest.

With regard to the meeting of the directors of schools of hygiene, he agreed with Dr. Jitta, particularly as some countries, such as Italy, did not possess schools falling exactly within the description of the draft resolution. In Italy, however, the movement was very developed, as there were twenty schools of hygiene and six higher institutions. If he was correct in his interpretation of the proposal, he would be obliged to make reservations on behalf of the Italian delegation.

The PRESIDENT pointed out that the directors of schools of hygiene formed a technical organ which already existed and had already met. The proposal was merely to convene a meeting of these directors, who would place their suggestions before the Conference.

With regard to Dr. Lutrario's remarks respecting European schools of hygiene, he explained that this meant schools of hygiene in Europe.

Dr. RAJCHMAN, Medical Director, suggested the following amendments to the draft resolution in order to meet the views of the various speakers.

With regard to M. Gautier's remarks he suggested substituting the words " a Fourth (Resolution) Committee " for the words " a Fourth Committee on international rural hygiene studies ".

In order to meet Dr. Lutrario's views, he suggested substituting the words " undertake certain studies among those to be recommended by the Conference " for the words " undertake certain of the international studies to be recommended by the Conference ".

An organisation of directors of schools of hygiene already existed and had met at Madrid in May. It was natural they should meet again since they were assembled at the present Conference. They might inform the Conference of what subjects they proposed to investigate.

Dr. LUTRARIO (Italy) said the Italian delegation would have no difficulty in accepting the first part of the resolution. If he had thoroughly grasped the explanations given, the Fourth Committee would really only be a kind of Drafting Committee, which would extract from the proceedings the most important questions and frame a programme of future work.

Regarding the second part of the resolution, he shared Professor Jitta's misgivings. In the first place, he did not exactly know what " European " schools of hygiene were meant. If they accepted the usual interpretation of the expression, the meeting would necessarily be confined to a limited number of individuals. Many countries — even large countries — would be excluded. As the object was to establish a programme of studies dealing with the topics before the Conference and interesting all European countries, it would be better to broaden the basis of suggestions and co-operation for such a programme.

Dr. RAJCHMAN, Medical Director, remarked that two Italian representatives were connected with schools of hygiene. If it was desired that, in addition to the school at Rome, another school should be represented, this result could no doubt be obtained by addressing a letter to the President of the Health Committee.

The PRESIDENT, in summing up the proposed amendments, thought all objections were now removed. The revised text would be distributed to the Conference. The Bureau reserved the right to make a further proposal regarding the constitution of the Fourth Committee.

The amended text was adopted.

Second Question on the Agenda (Rural Health Centres) (Continuation of the General Discussion).

Dr. KONRICH (Germany) said it had been clear from the outset that the first and second questions on the agenda were very closely connected, and this view had been confirmed by the discussions in the Conference. There were, nevertheless, great differences between medical assistance and rural health centres. It was no doubt much easier to obtain uniform medical treatment for the rural population than to provide for uniformity in preventive measures. This was due to differences, not only between different countries, but even in local conditions in the same country.

The experts' report and that by Dr. Stampar laid down clear rules for one solution of the question, and showed that that solution was practicable. In Germany, however, as had been shown by M. Miemietz and M. Unger, the basis of medical treatment was that the patient should choose his own physician in accordance with the confidence he placed in him. This view had, for a time, been to some extent negatived by the advent of social insurance, but had since again become predominant.

Curative treatment was a matter that concerned the doctor and his patient. Preventive treatment should endeavour to take its place between these two parties. He did not want to dwell on the distinction between curative and preventive treatment. On the contrary, there must be co-operation between the two. In Germany, a definite distinction actually existed, because the medical practitioner was a free agent, while the preventive doctor was an official. Some form of co-operation must be found. In Germany, this took the form of what was known as an *Arbeitsgemeinschaft*.

The preventive staff should be trained for the task they had to fulfil. Unfortunately, they had not yet reached the stage of training which was desired. This was natural in view of the great development in preventive medicine which took place after the war, when it was found impossible to supply a sufficient number of trained men.

As Dr. Konrich had already stated, preventive doctors in Germany were State or communal officials. They received training in special courses at the institute of social hygiene. They were forbid den to give curative treatment in order that they might not compete with the ordinary practitioners.

He regarded the auxiliary personnel as being of great importance — in particular, the nurses. In Germany, these were of various kinds, such as nurses attached to friendly societies, communal and district nurses, etc. One of their main objects must be to give instruction in the necessity for health measures. For this purpose they should be as well trained as possible. With regard to the question as to whether nurses should have general or specialised training, he inclined to the opinion that general nurses were the most suitable. If only specialised nurses were used it might happen that the same small district would require one nurse for children's diseases, one for pulmonary diseases and one for venereal diseases. Not only would that be expensive, but the advice given might be contradictory. In rural districts, this would tend to confuse and undermine the confidence of the population. He therefore concluded that, for preventive treatment in country districts, it was better to employ nurses with a general training.

The auxiliary staff should also include health inspectors. These should be used, not only for inspection, but also for educating the population, especially the children, in questions of hygiene. In addition, the health inspector could also supervise foodstuffs. In Germany, food control was not in the hands of the health officials, but was dealt with by pharmacists. The health inspector could be used to connect up these two services.

With regard to the premises to be used for health work, he pointed out that there were no health centres in Germany, but that there were other equivalent arrangements. The general health work was in the hands of the district hospitals, which gave hospital

treatment and training. He thought it important that small districts should establish premises for health services in the same way as they built churches and schools.

He was not in favour of adopting a too rigid form for the health centres. At any rate, such rigidity would not be acceptable to Germany. He was in favour of simplifying the system and thought that could be done by means of improved transport. Instead of many small centres, it would be better to centralise the work in one larger centre.

He agreed with the guiding principle, expressed in the reports by the experts and by Dr. Stampar. He appreciated, in particular, Dr. Stampar's remark that there were various ways of reaching the same object. He hoped Dr. Stampar would agree that the method used should not be the same everywhere, but that the object should be to obtain the same good results.

M. ANDRONESCO (Roumania) wished to mention a few problems which he thought might be referred to the Fourth Committee. They were as follows :

(1) Artificial light as a social pathological factor ;
(2) Labour and health ;
(3) The bases of society as a social pathological factor ;
(4) Shame as a social pathological factor ;
(5) Sterilisation of criminals, idiots, tubercular cases and degenerates ;
(6) Intoxication as a pathological factor ;
(7) The value of applied hygiene ;
(8) Food reform ;
(9) Insufficiency of respiration as the greatest social pathological factor ;
(10) Physical culture ;
(11) The most urgent and the easiest means of attaining adequate hygiene.

Dr. A. ISMAIL (Turkey) read his report (document Conf.Hyg.rur./24) on the position of public health work in Turkey.

He added that Turkey, like other countries, awaited with great interest the results of the discussions in the Conference in order to use them for improving health work in rural districts.

On behalf of his Government, he thanked the Spanish Government and the Council of the League for their initiative in convening for the first time a Conference on Rural Hygiene.

The PRESIDENT intimated that the report they had just heard was being translated and would be distributed on the following day.

M. PALLIS (Greece) wished for the moment merely to comment on the French representative's reservation regarding Dr. Stampar's report — a reservation which clearly illustrated the contrasting conditions prevailing in the various countries. Where, as in Greece, there was a shortage of private doctors in country districts, it was essential that the public health officers should, as Dr. Stampar proposed, be permitted to give medical treatment. In Greece, 87 per cent of the medical profession was concentrated in towns, leaving only 13 per cent, or an average of one doctor for every 7,000 rural inhabitants. The disproportion was even greater in northern Greece, where the settlement of more than half a million refugees on the land had compelled the Government to establish rural dispensaries with paid doctors and chemists to ensure the settlers the benefits of a medical service. The principles advocated in Dr. Stampar's report were those which had just

been adopted by the Greek Government in organising its new health and social services, but these were still of too recent a date to furnish useful material for discussion by the Conference.

He associated himself with Dr. Ferguson's remarks on the rather vague reference made in the report to the financial side of rural hygiene schemes. Were these to be maintained by voluntary contributions or from the proceeds of taxation ? His own suggestion was that the problem might be solved if communes were given the proceeds of the land tax or the tax on agricultural produce. In Greece — and he thought it was true of other countries — peasants were constantly claiming relief from such taxation on the ground of losses suffered through hail, drought, floods, etc. The Greek Government had recently suspended collection of the agricultural produce tax for two years. He believed that, if the peasant realised that such revenue would be expended on local requirements, such as health services, by their own communal authorities, they would be less anxious to claim exemption, and communal health services would enjoy permanent and regular support. That was the solution he intended to propose to his own Government for solving the difficult problem of decentralisation.

In regard to the other questions on the agenda, his delegation was there to receive rather than to give information. For the last twenty years the Greek health services had had to concentrate their efforts on combating epidemics and other natural catastrophes, to the neglect of the more normal activities of health administrations. They hoped now to embark on a new era of health re-organisation, which would certainly bear good results.

Dr. Berry (Irish Free State) supported the President's suggestion that the First and Second Committees should hold joint meetings, since it was almost impossible to differentiate in rural areas between curative and preventive medicine.

In Irish rural districts, curative services were in the hands of the dispensary doctor, a part-time public official whose salary was borne on the local rates, but partially repaid by the Central Government. The office was pensionable and the holder could practise privately. His duties were to give free medical assistance and medicine to the poor in his district and, where necessary, secure hospital treatment for them. Such activity, he thought, had a wider scope than that of health insurance funds, since it covered the destitute, the peasant the farmer, the small shopkeeper and their families. The Irish authorities would be very reluctant to change a system which had proved to be in the best interests of the sick and needy in rural areas. For preventive work, it was found that county health units were the most satisfactory. The dispensary doctor acted as medical officer of health for his district, co-operating with the county medical officer of health. The latter was a whole-time specially qualified doctor responsible for the public health of the county, for maternity and child-welfare schemes, for school medical inspection, tuberculosis and venereal disease work, etc. It had been found that the active co-operation of the local practitioner in rural areas was indispensable. As regards the decentralisation of medical and public health work in rural areas, he was convinced that there should be a central authority to supervise and co-ordinate policy, otherwise chaos and confusion would result.

Dr. Garcia Tornel (Spain) thought there was a dangerous inconsistency between Dr. Stampar's statement that " primary rural health centres are intended, not only for consultation, but also for the treatment of patients " and the conception of such institutions expressed in Professor Parisot's report as primarily centres of diagnosis and prevention. In special cases, a health centre might supervise or administer the medical treatment ; but, if that practice became general, friction might develop between doctors employed in such centres and the local practitioners.

Dr. SPAAS (Belgium) explained that it was a mistake to think of Belgium as a predominatingly industrial country ; there were provinces in which 60 per cent of the population inhabited small villages of less than 1,000 people. The law formerly left the organisation of health services to the local authorities, who depended for technical advice on committees composed of representatives of the medical profession. Latterly, the Government had found it necessary to set up a special health inspection department staffed by qualified doctors, and there was an arrangement by which communal authorities could obtain the services of doctors attached to this department free of charge. In general, all the activities of health services were free and at the entire disposal of doctors.

As regards infant mortality, the Government directed its energies to co-ordinating the work of private child welfare agencies, such as *l'Œuvre nationale de l'enfance*, and maternity clinics. Pre-natal care and money grants to women in child-birth were provided by the law of the country. Subsequent supervision took the form of school medical inspection and school and open-air holiday camps were provided for delicate children.

The campaign against tuberculosis throughout Belgium was conducted by the *Association belge contre la tuberculose*, the *Ligue nationale belge contre la tuberculose* and *l'Œuvre de la préservation de l'enfance*, all of which were now incorporated in *l'Œuvre nationale belge contre la tuberculose*. This had now been officially recognised as a public utility body, and the Government had granted a subsidy of 100 million francs for the purchase of a complete anti-tuberculosis equipment. Efforts were also made to remove children from an undesirable environment, and to arrange for public lectures on social health topics. Anti-venereal work was another activity encouraged by the Government, which supplied medical practitioners with remedies for free distribution. Normal and domestic economy schools had also been created to train instructresses in health and social welfare work and enable them to give country girls the instruction necessary to fit them for more efficient discharge of their daily tasks.

Dr. KOLAR (Czechoslovakia) thought that the various reports submitted to the Conference would form a solid foundation for international collaboration in solving rural hygiene problems. They furnished ample evidence of the progressive impoverishment, both material and physical, of the rural population, and of the possibility of remedying these evils by adopting the proposals made. It was certainly true that many of the latter involved considerable expenditure, and much propaganda work would be necessary to convince the agricultural population of their necessity. The economic productivity of some of the proposals was obvious even in a time of depression like the present. He referred to water supply improvements, land bonification, the treatment of solid and liquid sewage, etc. The economic advantages of other proposals — *e.g.*, treatment of household garbage — were not so directly obvious and would require further investigation. Steps should also be taken, he thought, to convince the populations concerned that the value of rural sanitation lay as much in the ultimate advantages of lower sickness and death rates as in the actual sanitary improvements introduced. He could not sufficiently stress the importance of propaganda aimed at stimulating an intelligent interest in rural hygiene problems and directed by professional agriculturists to ensure its penetrating to the circles most concerned. Such propaganda work should not concern itself with model installations or equipment which were beyond the means of the average peasant, but confine itself to practical local requirements.

He would venture to cite the instance of a private organisation for rural health which had been working for three years in Czechoslovakia and drew its members from all classes of rural society. One of its activities was the opening of crèches for the children of agricultural labourers and smallholders during their parents' working hours. In addition, the society conducted annually a special propaganda campaign in the Press with a view

to popularising prophylactic measures. Illustrated posters were sent out and villagers were ivited to attend lectures organised locally with the active collaboration of doctors, veterinary surgeons, schoolmasters and agricultural training-school teachers, etc. Hints were given to communes on the disposal of sewage and the improvement of health conditions by means of town planning and drainage schemes, construction of water-supply systems, inspection of wells, appointment of school doctors, establishment of public medical consultations, etc. Training courses for lecturers were also organised and printed lectures supplied for the use of doctors, veterinary surgeons and agricultural inspectors. The society could already claim to have achieved considerable success, though in general there was still much scope for pioneer work and for greater co-ordination of methods.

In conclusion, he wished, on behalf of the Czechoslovak Ministry of Agriculture, to thank the Spanish Government and the League of Nations, as well as the various Rapporteurs, for the action taken in convening the Conference.

Dr. STAMPAR (Yugoslavia) wished to reply briefly to the various questions raised concerning his report.

He had certainly not intended to imply that any one system could be applied indifferently to all countries.

On the delicate question of the relations between the local practitioner and the health centre, he would be very loth to oppose the legitimate interests of the medical profession. When a country, however, was inadequately supplied with rural doctors, health services could not possibly be dispensed with. Moreover, health service implied arranging for the introduction of a medical practitioner into a district where he would live and work — in other words, the creation of a primary or secondary health centre. Did they imagine, again, that, in a district where malaria or venereal disease was endemic, a single general practitioner could possibly deal with the situation ?

As regards the point raised by Professor Konrich on the differentiation between curative and preventive medicine, he thought that, in districts such as he had just described, a doctor must combine both activities.

His German colleagues had mentioned the desirability of permitting patients to choose their own doctors, but there were rural districts in some countries where no doctor could be found, or where the population was quite indifferent to the need for medical attention. They could not afford, he believed, to wait until education had done its work in such districts, and rural health services should be introduced even at the risk of antagonising the medical profession. Similarly, health insurance funds could supply a deficiency in health services in rural districts. The question was whether, in such cases, members should be entitled to choose their own doctors or should be bound to accept the services of the doctor appointed by the fund.

On the important question of the resources available for organising rural health services, he referred them to the recommendation in the report that the population should be sufficiently interested to provide the necessary funds itself. His own experience went to show that even the poorest district was prepared to contribute in kind when it realised the value of the benefits conferred.

Dealing with Dr. Ferguson's remarks concerning the rôle of local consultative committees, he reiterated the view expressed in the report that such bodies had no official standing or power of decision, but should act as a link between the population and the health centre. As regards the relation of primary health centres to local authorities, he conceived that the former should be executive organs of the latter.

The PRESIDENT declared closed the discussion on item 2 of the agenda.

SEVENTH MEETING (JULY 2ND, 3.30 P.M.).

Constitution of the Fourth Committee. — Opening of the Discussion on Item 3 on the Agenda (Sanitation). — Statements by the Rapporteurs, M. Bürger (Sewage and Refuse), M. Krul (Water Supplies), Mr. Ross Hooper (Housing), M. Buttini (Bonifications).

President : Professor G. PITTALUGA.

Appointment of the Drafting Committee.

The PRESIDENT stated that, in accordance with the resolution adopted at the previous meeting, the Drafting Committee had been appointed as follows :

Chairman : Dr. CHODZKO.

Members : Dr. A. SHEARER *(Chairman of the First Committee)*,
Dr. Bela JOHAN *(Chairman of the Second Committee)*,
M. VIGNEROT *(Chairman of the Third Committee)*,
Dr. SEIFFERT,
Dr. SORENSEN,
Professor Innocencio JIMENEZ,
M. VIMEUX,
M. C. BUTTINI,
M. KRUL,
M. PIRC,
M. UNGER,
Dr. Sterling BERRY.

The President hoped that the appointments to the Committee, which it had been agreed to limit to twelve members, would meet with the Conference's approval.

Discussion of the Third Item on the Agenda.

In view of the extremely technical character of the problems referred to the Third Committee, the Plenary Conference would confine itself to hearing summaries of the four reports submitted by the Rapporteurs of that Committee.

M. BÜRGER (Germany) summed up the main conclusions of his report on the disposal of sewage (document Conf.Hyg.rur./25).

M. KRUL (Netherlands), in summing up his report on water supplies in rural districts, said that his task had been to a great extent lightened in that he had been able to compile it from the full data contained in the experts' reports, the information gained from their discussions, and from the Health Section's documents. He chen gave a resumé of the report (document Conf.Hyg.rur./7.)

M. Petrik had spoken in his report of the progress made in centralising the Netherlands water system. He had described the material side only without dwelling on the lengthy negotiations with municipal councils which were often necessary before the

scheme could be carried out. Its promoters, however, were inspired by William the Silent's words : " I go forward, though hope seems vain ; I persevere, though I may not succeed ".

Mr. Ross HOOPER (Great Britain) presented his report on rural housing (Conf. Hyg.rur./3). Progress towards a better rural housing system would of necessity be slow ; in some districts twenty-five years had passed before the separation of human beings and animals in farm dwellings had been achieved. Thanks, however, to State aid and encouragement and to the co-operation of the many organisations concerned, good results would undoubtedly be achieved. The Sub-Committee of Experts had purposely confined itself to submitting a general scheme only, on the lines of which each country could draw up a programme suitable to its local conditions, customs and financial situation.

Since M. Bonamico was unfortunately not able to be present M. BUTTINI (Italy) thanked the Conference for allowing him to submit the report on " Bonifications " (document Conf.Hyg.rur./6). He gave a brief summary of M. Bonamico's report.

The PRESIDENT thanked the different Rapporteurs on behalf of the Conference. As already decided, no general discussion on their reports would take place in plenary session. As they were highly technical, they would be submitted direct to the Third Committee for discussion.

Work of the First and Second Committees.

The PRESIDENT stated that, if their Chairman so wished, the First and Second Committees could hold joint meetings in view of the connection between the subjects with which they were called upon to deal.

EIGHTH MEETING (JULY 6TH, 4 P.M.).

Submission and Adoption of the Reports of the First, Second and Third Committees.

President : Professor G. PITTALUGA.

Submission of Reports by the Three Committees.

The PRESIDENT stated that the three Committees had concluded their work and drawn up reports containing the conclusions arrived at.

He would call on the Chairman of the three Committees to report on their work.

Dr. SHEARER (Great Britain), Chairman of the Committee on Medical Assistance, submitted his report.

No observations were made.

The report was adopted.

Dr. JOHAN (Hungary), Chairman of the Committee on Rural Health Centres, submitted his report.

No observations were made.

The report was adopted.

M. VIGNEROT (France), Chairman of the Committee on Sanitation in Rural Districts, in submitting his report, quoted a passage from the memorandum of the Health Organisation regarding the necessary measures of sanitation in rural areas. He thought the object proposed had been attained by the resolutions as finally accepted by his Committee.

No observations were made.

The report was adopted.

Professor MADSEN, President of the Health Committee of the League of Nations expressed his satisfaction at the co-operation that had been established between the sanitary engineers and the League's Health Organisation. He hoped this co-operation would continue in the future.

(The meeting adjourned in order that the Fourth Committee might meet.)

NINTH MEETING (JULY 6TH, 6 P.M.).

Submission and Adoption of the Report of the Fourth Committee.

President : Professor G. PITTALUGA.

Dr. LUTRARIO (Italy) thanked Professor Bernard for the friendly reference to the Italian delegates made at the beginning of his report to the Fourth Committee.

Professor Léon BERNARD (France) thanked Dr. Lutrario, and hoped that his words would find expression in deeds, and that he would shortly be able to supply the Italian co-operation without which the work undertaken could not be completed.

Report of the Fourth Committee.

Dr. CHODZKO (Poland) (Chairman of the Fourth Committee) submitted the report of the work of that Committee (document Conf.Hyg.rur./34). The Fourth Committee asked the Conference also to adopt the proposals contained in Professor Léon Bernard's report, which it had just approved.

He laid particular stress on resolution *(g)*, reading as follows :

" *(g)* The Conference wishes to assert the importance in the sphere of rural hygiene of close co-operation between public relief officials, sanitary engineers, architects, agricultural experts, hygienists and general practitioners, the representatives of health insurance institutions, agricultural trade unions and private agencies.

" The Conference on Rural Hygiene has furnished a striking example of the fertility of such collaboration, which, begun under the auspices of the League of Nations, should be continued and developed. "

The Conference would certainly be unanimous in congratulating the Spanish Government on its initiative and the Council of the League of Nations on having responded to that initiative. It would, however, be a poor reward for both parties if the present Conference were to be the last. He was expressing a general sentiment in hoping that a similar conference would be convened in a few years' time to consider the practical results of their present deliberations.

The PRESIDENT repeated Dr. Chodzko's statement made to the Fourth Committee — that the question of co-operation in the enquiries which Professor Léon Bernard's report suggested should be undertaken remained open. The Health Organisation would welcome the names of further schools, institutes and establishments anxious to share in the enquiry.

The report of the Fourth Committee was adopted, together with Professor Léon Bernard's report on the meeting of directors of European schools of health.

The PRESIDENT thought it was a matter for congratulation that the proceedings of the Conference were terminating by the adoption, not only of conclusions on the questions which had been studied beforehand by the Preparatory Committee, the Committees of Experts and the Rapporteurs, and exhaustively discussed in the Conference Committees, but, in addition, by the adoption of a programme of practical enquiries initiated by the Conference, which would be highly valuable in future and had already been entrusted to technical organisations.

The President said that the Conference would doubtless discuss the concluding recommendation of the Fourth Committee's report at its next meeting. Some time, of course, would have to elapse before the practical work to be undertaken in the various countries yielded really valuable results. It would only be after such an interval that the Conference could re-assemble and examine the results achieved.

In conclusion, he was gratified to note the useful collaboration initiated with the International Labour Office and the International Institute of Agriculture at Rome.

TENTH MEETING (JULY 7TH, 11.45 A.M.).

Closing Meeting.

President : Professor G. PITTALUGA.

There being no formal agenda, the Président said he would call on those members who had expressed a desire to speak.

Dr. BERRY (Irish Free State), in congratulating the Spanish Government, the President, the Health Organisation and all concerned on the success of the Conference, reminded delegates that it was the Irish member of the Council who had reported on the original Spanish proposal to convene the Conference. He felt sure that the Council would approve the results achieved, and that the work done during the past week would herald the opening of a healthier era for rural populations.

Professor MIYAJIMA (Japan) said he had benefited greatly by passive participation in the Conference's proceedings. Though concerned, and rightly so, with European

problems, the recommendations made could not fail to be of advantage to Eastern countries also. Japan would certainly try to adapt them to her own situation and would be very glad if the League later decided to call an international conference which would continue the work so successfully begun.

M. PALLIS (Greece), in adding his congratulations on the success of the Conference, was convinced that its final recommendations would be immensely valuable, particularly to countries less advanced in the sphere of public hygiene. He hoped steps would be taken to put the recommendations into effect by those present holding administrative positions or capable of influencing departmental policy, as well as to convince the respective national delegates to the Assembly of the significance of the results achieved. He concluded with a tribute to the generous support given to many national health services by the Rockefeller Foundation.

Professor PUNTONI, on behalf of the International Institute of Agriculture, Rome, expressed his gratification at the success of the Conference under the able chairmanship of Professor Pittaluga. The Institute at Rome had a long record of pioneer work in this sphere and would be glad to continue its co-operation in raising the standard of rural hygiene.

Professor JITTA (Netherlands) wished to express his gratification at the results achieved and, in particular, to stress the unanimity which had characterised the Conference and added to the weight of its recommendations.

Dr. LUTRARIO (Italy) expressed his delegation's gratification at the unanimous conclusions adopted by the Conference — the result, he thought, of the excellent preliminary spade work done by the Preparatory Committee and the Health Organisation, as well as of the conciliatory spirit shown by all the delegates. The ultimate effect would be to restore the countryside to its rightful position as the source of national energy and healthy initiative.

M. UNGER (Germany) was grateful for the opportunity afforded to representatives of rural health insurance institutions to participate as delegates in such an important Conference. He trusted that the intimate co-operation so auspiciously established would continue to increase and lead to the greater uniformity and effectiveness of rural health services.

Professor KONRICH (Germany) thought the Conference marked a turning-point in the development of public health work, which had hitherto concentrated its main efforts on urban populations. There could be no radical improvement in health and general fitness if the interests of the rural section of the community were neglected. They were now, he felt, on the right path.

Dr. SPAAS (Belgium) mentioned that his delegation's inability to participate in the deliberations of the directors of schools of health by no means implied a lack of interest in the subject. The Belgian authorities had frequently helped in working out model programmes of public health studies and had always put their practical experience at the disposal of the Health Section.

M. TIXIER (International Labour Office) said it had always been the object of the Labour Office to promote the welfare of both urban and rural workers. Having co-operated in all the preliminary proceedings, they were extremely glad to note the final success achieved

by the Conference. In view of the large number of interests — medical, engineering, social insurance, departmental, etc. — represented, it was a really remarkable result to have produced a series of unanimous recommendations. He thanked the Conference for its recognition of the important part which health insurance institutions could play in promoting rural hygiene.

M. FIERLINGER (Czechoslovakia) said his country had so far concentrated its efforts mainly on urban health schemes, but would now be glad to make practical use of the Conference's recommendations regarding the organisation of rural hygiene. He associated himself with the tributes paid to all responsible for the success of the Conference.

Dr. CHODZKO (Poland) was particularly glad to see the idea of rural health centres internationally approved and the right of the country folk to enjoy the same facilities as urban populations officially recognised in what might be called the " Peasants' Charter ". Equally gratifying was the unprecedented unanimity which had prevailed and which augured well for the future when the recommendations were given general effect.

Dr. SARRAZ-BOURNET (France) associated himself with the sentiments of previous speakers and expressed the hope that the findings they had adopted would contribute to ensuring the social peace which the world so urgently needed.

Dr. Sadi DE BUEN (Spain) acknowledged the compliments paid to his country for suggesting the convening of the Conference, and said the recent political change in Spain had intensified the efforts made to improve rural health conditions by both Governmental and local authorities. The proceedings of the Conference would be extremely valuable to those authorities, and he hoped that, in the course of time, they would be able to point to tangible results.

Dr. PIRC (Yugoslavia) noted that the conclusions adopted proved that the Yugoslav authorities were proceeding on the right lines in the schemes which they had been pursuing for the past ten years, and in which they had had the invaluable co-operation of the Health Section and the Medical Director. It was a notable testimony also to the importance of the Conference that, at such a time of economic depression, it had assembled so many prominent experts. He hoped that the work of standardising methods of rural health organisation would be continued.

Mr. HOOPER (Great Britain) thought the great accomplishment of the Conference was the charter of health services which it guaranteed to rural workers.

Professor MADSEN (Health Committee) congratulated all concerned on the striking success of the Conference. Rural hygiene had been one of the earliest preoccupations of the Health Committee as evidenced by the practical encouragement it had given to national effort in countries like Bulgaria, Greece, Yugoslavia, etc. The work done in those countries and the unanimity which had been such a feature of the present Conference should encourage its members to persevere and deal ultimately with yet wider international problems.

The PRESIDENT spoke as follows :

Ladies and Gentlemen, — You will, I hope, allow me to remind you that, when I had the honour to open the proceedings of this Conference ten days ago, I ventured to recall those wise and profound words of Lessing : " Men should not be judged by their success, but by the effort that they make in order to succeed ". We have made our effort.

That might content us. Nevertheless, it is only right that, having reached the end of our task, we should stop to consider the results achieved and to delight in that ample satisfaction which is always the fruit of effective and useful effort.

All of you who have shared in this work will carry away with you the certainty that the effort has been effective. We started with a general discussion, full of interest, on the three great questions included in the agenda. New questions arose and we unanimously agreed to refer them for closer study to the committees into which the Conference split up. We thus adopted the true modern method of collective work which calls for both competence and specialisation. The directors of the schools of hygiene and public health of various European countries, who met during our Conference, placed themselves at the disposal of the Fourth Committee, and, in co-operation with that Committee and in accordance with your instructions, drew up a scheme of work. All of this work was submitted for your consideration and approval in the plenary meetings held yesterday and this morning.

These really important meetings have led to a series of practical conclusions, on which we have all agreed and which all of you, as heads and members of the different national delegations, will take back to the administrations and organisations of your own countries as principles which should provide the basis for reforms in hygiene and public health in agricultural and rural districts.

Medical assistance, its technical improvement, the possible utilisation of health insurance, the organisation of health services in rural districts, sanitation in regard to housing, water supplies, sewage, manure, the soil and the improvement of working methods — all these questions have been thoroughly considered, and on them all we have reached clear and practical conclusions.

It is obvious that our task does not finish there. We must all become the apostles of the work which we have planned together and of which we can each foresee the effect in our own countries.

May I, as President, and on behalf of you all — for I am proud of the way in which you have always shown your confidence in me — express the warmest thanks to the Rapporteurs, Professor Parisot, M. Stampar, M. Unger, Mr. Hooper, M. Bürger and M. Bonamico, and to the members of the Committees of Experts who laid the foundations of this work in the memorandum that was distributed by the Secretariat. Finally, I would like to thank those who have collaborated with us from the very outset, the technical members of the Health Section of the League of Nations, and particularly Dr. Boudreau, for the devotion they have shown and for the heavy work they have successfully completed, and also the Medical Director, Dr. Rajchman, who has given our Conference the benefit of his enthusiastic support.

I am sure that this first European Conference on Rural Hygiene will mark an epoch in the history of hygiene in agricultural and rural districts. For the first time on so large a scale and with so much authority, practising physicians, health officers, administrators, agriculturists, engineers and organisers of agricultural associations have met together for the thorough study of those questions which are most important for the improvement of conditions of life in rural districts from the standpoint of hygiene and health. It will not be the last time. There is still a long road to be travelled, but this Geneva Conference, convened by the League of Nations, marks the starting-point on that road, clearly indicates its stages, and assures us of an international co-operation, both technical and moral, which redoubles our strength and our faith.

CHAPTER III. — CONSTITUTION, MINUTES AND REPORT OF THE FIRST COMMITTEE (MEDICAL ASSISTANCE).

List of Members of the First Committee. — Minutes of the First Meeting (July 2nd, 3.30 p.m.) and of the Second Meeting (July 3rd, 3.30 p.m.). — Report.

FIRST MEETING (JULY 2ND, 3.30 P.M.)

Chairman :

Dr. A. SHEARER	*Great Britain.*

Vice-Chairman :

Dr. A. ISMAIL	*Turkey.*

Present :

Mr. GULDENTOPS	*Belgium*,
Mr. SPAAS	*Belgium*,
Mr. J. LANGER	*Czechoslovakia*,
Dr. H. PELC	*Czechoslovakia*,
Mr. MERTZ	*Denmark*,
Mr. Jules GAUTIER	*France*,
Mr. S. DE LESTAPIS	*France*,
Prof. J. PARISOT	*France*,
Mr. SARRAZ-BOURNET	*France*,
Prof. F. KONRICH	*Germany*,
Dr. W. MIEMIETZ	*Germany*,
Dr. PRAUSNITZ	*Germany*,
Mr. K. UNGER	*Germany*,
Dr. J. FERGUSON	*Great Britain*,
Dr. A. LUTRARIO	*Italy*,
Mr. A. ROBERTI	*Italy*,
Dr. D. RIO	*Italy*,
Mr. J. BEIJERMAN	*The Netherlands*,
Mr. Ferraz DE ANDRADE	*Portugal*,
Mr. ENESCO	*Roumania*,

Dr. A. CANAL-COMAS *Spain*,
Mr. I. JIMENEZ *Spain*,
Mr. Maycas DE MEER *Spain*,
Dr. Sadi DE BUEN *Spain*,
Mr. E. SANTIAGO *Spain*,
Mr. L. G. TORNEL *Spain*,
Dr. L. PIRC *Yugoslavia*,
Mr. K. SCHNEIDER *Yugoslavia*,
Mr. PROHASKA *Yugoslavia*.

Observers :

Dr. NAMANO *Japan*,
Dr. TSURUMI *Japan*,
Mr. Espinosa FERRANDAZ *Spain*.

Secretaries :

Dr. BOUDREAU
Dr. HUANG

The CHAIRMAN, after welcoming the members of the Committee, reminded them that their task was to study the principles and methods of ensuring medical assistance in rural areas. Each member had a special practical knowledge of the country with which he was particularly concerned, and the Committee's discussion would allow of an exchange of information. He personally would be glad to give an account of the methods employed in the Highlands of Scotland, with which he was particularly well acquainted.

The convening of the Conference augured well for the study — urgently needed in Europe — of the problem of medical assistance in rural districts.

He had accepted the chairmanship of the Committee feeling that he could rely on his colleagues' co-operation. They would, of course, speak whenever they desired to do so, but he would ask them to help his work by making as short speeches as possible.

The discussion which had already taken place in plenary session would facilitate the Committee's work, which would be based on the report of the Committee of Experts. The Committee was fortunate in counting both Professor Parisot and Mr. Unger among its members.

Dr. BOUDREAU (Secretariat), informed the Commission that Dr. Decourt, of the International Professional Association of Medical Practitioners, wished to make a statement.

The CHAIRMAN proposed to open the discussion with the consideration of Professor Parisot's report.

Professor PARISOT (France) pointed out that his report reproduced the conclusions of the Committee of Experts and some part of the Budapest report's conclusions. It would thus be simpler to study the printed document itself.

M. PROHASKA (Yugoslavia) reminded the Chairman that he had promised to give the Committee some particulars on the organisation of rural hygiene in Scotland.

M. SARRAZ-BOURNET (France) asked that the Committee's task might be clearly defined. He advocated a study of the experts' report item by item.

Dr. LUTRARIO (Italy) suggested a drafting amendment to the passage in italics in the first paragraph of the report.

The MEDICAL DIRECTOR pointed out that the Committee was not required to consider drafting amendments, the Fourth Committee having been expressly appointed for this purpose.

M. SARRAZ-BOURNET (France) had understood that it was for the Committee to frame draft resolutions to be submitted to the plenary Conference.

The MEDICAL DIRECTOR recalled that the President of the Conference had proposed to refer the various reports to the different Committees. These could enter at once upon a detailed discussion, the general discussion having taken place in plenary conference. In his view, study of the experts' report was a good system upon which to work. He feared that, if the Committee were to undertake drafting, it would not achieve satisfactory results. Such a task was better left to a small drafting committee.

The discussion on paragraphe I of the report of the experts was continued.

M. Sadi DE BUEN (Spain), Professor PARISOT (France) and Dr. BOUDREAU (Secretariat) spoke on paragraph 1 of the report.

M. PIRC (Yugoslavia) made some general remarks on the best methods to be followed in rural hygiene and prevention.

M. LUTRARIO (Italy) thought that the figure of 2,000 persons per duly qualified medical practitioner given in the report seemed too small.

M. Sadi DE BUEN (Spain), M. KACPRZAK (Poland), Dr. MIEMIETZ (Germany) and M. GULDENTOPS (Belgium), on the contrary, considered the figure justified.

Dr. LUTRARIO (Italy) accepted the figure after explaining that his objection referred to doctors giving compulsory assistance only. The number of these was fairly large in Italy, and constituted a heavy item in the State budget.

No objections were raised to paragraph 2.

M. SARRAZ-BOURNET (France) suggested the addition to paragraph 3 of a statement by Professor Parisot regarding the part to be played by pharmacists and co-operation between doctors and veterinary surgeons in cases of diseases affecting both men and animals.

With reference to paragraph 4, Dr. HUMBERT (representing the Red Cross societies), speaking as delegate of the international voluntary organisations, drew attention to the importance of the organisation of the auxiliary staff, a question even more difficult to solve than that of finding funds for voluntary societies. He pointed out the advantages of agreements between the Governments and Red Cross societies on the lines of that concluded by the Greek Government. Such agreements might be useful where rural hygiene was concerned — for instance, Governments estimating the number of centres for which the required staff might ask the Red Cross societies to supply such staff.

Dr. BOUDREAU (Secretariat) pointed out to Dr. Humbert that the part to be played by voluntary organisations was dealt with later in the report. He therefore asked him to postpone his proposals.

SECOND MEETING (JULY 3RD, 3.30 P.M.).

Chairman : Dr. SHEARER.

The Committee proceeded with the study of the experts' report paragraph by paragraph.

M. SARRAZ-BOURNET (France) proposed the insertion of a new sentence in paragraph 5, drawing attention to the connection between the organisation of the health centre and that of the health services, which were the subject of item 2 on the Conference's agenda.

Dr. BOUDREAU (Secretariat) recalled that the President of the Conference had proposed a joint meeting of the First and Second Committees in order to reach agreement on points within the competence of both. M. Sarraz-Bournet's proposal might be referred to this joint meeting.

The CHAIRMAN emphasised the necessity for close co-operation between the centre and the patient's physician.

Paragraph 5 was adopted.

With regard to paragraph 6, Dr. Sadi DE BUEN (Spain) pointed out that a large number of privately founded country hospitals existed in Spain, working under very bad conditions. The Commission might perhaps express the opinion that it would be better to do away with these unsatisfactory institutions and to concentrate on the development of more important and better equipped establishments.

Dr. BOUDREAU (Secretariat) said that it would be difficult for the Commission categorically to condemn all small hospitals, some of these being State-established. The words " hospitalisation in appropriate, suitably equipped institutions " in themselves implied that very small establishments presented disadvantages.

M. SARRAZ-BOURNET (France) agreed.

Dr. FERGUSON (Great Britain) drew attention to the conclusion reached by the Royal Commission responsible for estimating the number of hospital beds necessary per 1,000 of the population in England — namely that 1.6 beds per 1,000 persons were required in voluntary hospitals and three beds per 1,000 persons were required in public assistance hospitals.

Paragraph 6 was adopted.

Dr. GULDENTOPS (Belgium) drew attention to the danger of leaving analyses to rural pharmacists. This might encourage quack medicine. The rural population was always inclined to go to a pharmacist rather than to a doctor. Pharmacists, however, were becoming more and more content to sell patent products, thus reducing their preparatory work to a minimum.

Dr. BOUDREAU (Secretariat) recalled that Professor Parisot's proposal regarding the duties of pharmacists was to be referred to the Drafting Committee.

Professor PARISOT (France) considered it essential that analyses should be carried out in properly supervised laboratories, and that the qualifications of persons doing such work should be verified. It seemed to him that rural pharmacists did not fulfil all necessary conditions in that respect. They had inadequate time at their disposal and the constant sale of the different products they supplied made it impossible for them to undertake work requiring exclusive attention. It was preferable to entrust analyses to a biological medical expert with his own laboratory, provided that this laboratory was properly supervised, or, better still, to the primary or secondary health centre.

The CHAIRMAN drew attention to the advantages of close co-operation between the patient's physician and the medical specialist.

Paragraph 8 was adopted.

M. PROHASKA (Yugoslavia), though fully satisfied with the wording of paragraph 9, asked for an addition to it regarding the collaboration of health co-operative societies. In certain countries, these had helped to bring about the organisation of medical assistance in rural districts under the best possible conditions. In Yugoslavia, it was the co-operative societies alone which had been able to establish doctors in some of the more mountainous and isolated districts.

Dr. BOUDREAU (Secretariat) could bear personal witness to the valuable work of the Yugoslav health co-operative societies, which were a most successful enterprise. Nevertheless, he had some hesitation in recommending the addition suggested by M. Prohaska. The Committee was not very fully informed on the work of these organisations, and it might therefore be better to leave the text as it stood and to insert a special paragraph regarding co-operative societies in the explanatory text which followed it.

M. PROHASKA (Yugoslavia) considered that co-operative societies came within the category of private organisations. Since a paragraph was devoted to each of the other groups of institutions, a paragraph on co-operative societies might equally well be included.

Professor PARISOT (France) proposed that " mutual health co-operative societies " should be mentioned in the report.

This proposal was adopted.

Professor KONRICH (Germany) drew the Commission's attention to the passage referring to places where medical assistance was not yet provided and to the possibility of having recourse to persons who did not possess full medical qualifications. That provision might be very prejudicial to rural populations, and it was essential that treatment of the sick should only be undertaken by fully qualified persons.

The CHAIRMAN agreed. He noted Professor Konrich's remarks, which would be communicated to the Drafting Committee.

Mr. UNGER (Germany) also agreed. The German law on health insurance required that treatment should be given only by qualified doctors. The International Conference of Health Insurance Funds in 1927 had adopted a resolution to the same effect.

The CHAIRMAN, since the Committee had finished its work, proposed the appointment of a Drafting Committee, which would take into account the suggestions made during the discussion. He suggested that the Committee might consist of himself, the Vice-Chairman, and Professor Konrich, Professor Parisot and Dr. Unger.

Dr. BOUDREAU (Secretariat) thought that, as all the proposed changes were slight, the Committee should leave the matter in the hands of its Drafting Committee. The text drawn up would be distributed to the members, who would have every opportunity to comment upon it in plenary session.

Professor KONRICH (Germany) thanked the Chairman on behalf of the Committee, which felt that useful work had been done.

The CHAIRMAN had drawn up a statement on medical assistance in the Scottish Highlands. The roneographed text would be distributed to the members of the Committee.

REPORT OF THE FIRST COMMITTEE.

The First Committee adopted the following report :

1. In the largest sense, effective medical assistance may be considered as indicating a medical service organised in such a way as to place at the disposal of the population all the facilities of modern medicine in order to promote health and to detect and treat illnesses from their incipiency.

2. In order to furnish effective medical assistance to the rural population, the Conference is unanimous in the belief that 2,000 is the maximum number of persons who can be given proper medical attention by a duly qualified medical practitioner, on the understanding that, in proportion to the growth of the health services and the needs of the people, this number may be reduced to one thousand.

3. It is desirable that the number and distribution of pharmacists, and doctors who dispense their own drugs, in rural districts should be such as to ensure that all medical prescriptions may be furnished rapidly to the rural population.

4. Such medical assistance also requires a technically qualified auxiliary personnel comprising one or more nurses, or, provisionally, in the absence of qualified nurses, other persons possessing the minimum necessary technical training. However, it is essential that this auxiliary personnel abstain from all medical treatment, such treatment being only permissible under the direction of a qualified medical man.

5. It is recommended that, in the smallest rural settlement, the patient should be able to find a person capable of rendering first aid and of carrying out the doctor's orders.

6. The rural population and rural doctors should be in a position to utilise the services of centres of diagnosis and, if necessary, of specialised treatment. Such centres should be suitably equipped and provided with a qualified staff, anti-tuberculosis and anti-venereal dispensaries, etc.

These services should maintain liaison with the patient's physician, who should be informed of the results of the examinations, or, if necessary, kept in touch with the treatment and its results.

7. Rural medical assistance also implies facilities for hospitalisation in appropriate, suitably equipped institutions.

It is recommended that there should be such a hospital for a population of from twenty to thirty thousand people, a rational organisation requiring about two beds per thousand of the population.

However, each such institution should have not less than some fifty beds.

Permanent means of communication (telegraph, telephone, etc.) and constantly available means of transport should be at the disposal of patients and doctors to permit of rapid hospitalisation in urgent cases.

8. Rural medical assistance should utilise the services of laboratories.

Simple examinations and analyses may be carried out in the hospital laboratories.

More complicated examinations and analyses (bacteriological, pathological, serological, etc.) should be carried out in large, specially equipped laboratories.

9. Rural medical assistance should also be able to utilise medical specialists.

The specialists should keep in touch with the patient's doctor, informing him of the results of the examination and of the treatment and its results.

10. *Means of Realisation* A. The realisation of effective medical assistance in rural districts demands the collaboration of the public authorities — health and welfare (assistance) — of the medical profession, of health insurance institutions, of mutual benefit associations (sanitary co-operatives, etc.), of private agencies, etc.

B. The public authorities should ensure that the entire population benefits from an effective medical assistance. By means of a rational organisation of the health services, adequately staffed with specialists, they should attempt to develop the preventive tendencies of rural medical assistance.

In the interest of effective medical assistance, it would also be desirable for the public authorities to seek to organise a rational and co-ordinated health programme on a territorial basis, taking account of local conditions.

The public authorities should stimulate, assist and co-ordinate the efforts of agencies and groups which attempt to realise effective medical assistance. They should seek to fill the gaps and avoid the duplication which may occur in the organisation of this assistance.

C. The Conference considers that, when health insurance applies to the entire body of agricultural labourers, it permits the realisation of effective medical assistance in rural districts under the best conditions.

D. Nevertheless, where health insurance has not yet been established, rationally organised, free medical assistance may intervene usefully in completing a system which partially satisfies the needs of rural populations.

CHAPTER IV. — CONSTITUTION, MINUTES AND REPORT OF THE SECOND COMMITTEE (HEALTH SERVICES).

List of Members of the Second Committee. — Minutes of the First Meeting (July 3rd, 10 a.m.) and of the Second Meeting (July 4th, 10 a.m.). — Report.

LIST OF MEMBERS OF THE SECOND COMMITTEE.

Chairman :

Dr. B. JOHAN,	*Hungary.*

Vice-Chairman :

Mr. A. PALLIS,	*Greece.*

Members :

Mr. J. SPAAS,	*Belgium,*
Dr. H. PELC,	*Czechoslovakia,*
Mr. M. ZELENKA,	*Czechoslovakia,*
Mr. A. METZ,	*Denmark,*
Mr. SORENSEN,	*Denmark,*
Mr. Jules GAUTIER,	*France,*
Mr. S. DE LESTAPIS,	*France,*
Prof. J. PARISOT,	*France,*
Mr. M. SARRAZ-BOURNET,	*France,*
Mr. P. VIMEUX,	*France,*
Dr. MIEMIETZ,	*Germany,*
Dr. G. SEIFERT,	*Germany,*
Mr. K. UNGER,	*Germany,*
Dr. J. FERGUSON,	*Great Britain,*
Dr. N. WHITE,	*Greece,*
Dr. S. BERRY,	*Ireland,*
Mr. G. GIORGI,	*Italy,*
Mr. O. GORINI,	*Italy,*
Mr. A. LABRANCA,	*Italy,*
Dr. A. LUTRARIO,	*Italy,*
Mr. E. C. VAN LEERSUM,	*Netherlands,*
Dr. J. H. TUNTLER,	*Netherlands,*
Mr. Ferraz DE ANDRADE,	*Portugal,*

Dr. S. TUBIASZ,	*Poland*,
Mr. C. ANDRONESCO,	*Roumania*,
Mr. V. PASCAL,	*Roumania*,
Dr. A. CANAL-COMAS,	*Spain*,
Mr. I. JIMENEZ,	*Spain*,
Mr. R. Maycas DE MEER,	*Spain*,
Dr. Sadi DE BUEN,	*Spain*,
Mr. L. G. TORNEL,	*Spain*,
Mr. WRANNE,	*Sweden*,
Mr. M. PETRIK,	*Yugoslavia*,
Mr. PROHASKA,	*Yugoslavia*,
Dr. M. RANKOV,	*Yugoslavia*,
Mr. K. SCHNEIDER,	*Yugoslavia*.

Observers :

Mr. C. N. LOU,	*China*,
Mr. ROY,	*India*,
Dr. HAMANO,	*Japan*,
Dr. TSURUMI,	*Japan*,
Mr. CAMARHA VALES,	*Mexico*,
Mr. ESPINOSA FERRANDIS.	*Spain*.

Secretary :

Dr. CIUCA.

FIRST MEETING (JULY 3RD, 10 A.M.).

Chairman : Dr. Bela JOHAN (Hungary).

Discussion of the Report of the Preparatory Committee[1] : *Chapter III.*

The CHAIRMAN, after briefly explaining the origin of the Preparatory Committee's report, pointed out that the Committee would have to discuss pages 18 to 33, dealing with the most effective methods of organising health services in rural districts, bearing in mind the recommendation (see page 8) that purely veterinary questions should be omitted and only those aspects of the milk supply discussed which concerned rural districts alone. It should also be observed that their primary concern was with the principles embodied in the italicised recommendations ; matters of phraseology would be dealt

[1] See Annex 1.

with by a special Drafting Committee. Before considering Chapter 3 in detail, he would ask Dr. Gorini, who had to leave Geneva that day, to make a statement on the problem of the milk supply in rural districts.

Dr. GORINI (Italy) wished to stress the importance of hygienic methods in milk production and mentioned that the new Italian law of May 29th, 1929, known as the " Milk Charter ", marked a definite advance in this direction. Sanitary treatment of milk by filtration, pasteurisation, sterilisation, etc., concerned urban centres primarily, and was of secondary importance as compared with the production of really healthy milk. Milk, infected or impure on production, was well known to be capable of transmitting numerous infectious diseases, so that the introduction of hygienic methods of milk production would help enormously in combating tuberculosis and other social diseases. Another aspect of hygienic milk production was the educational effect on the persons employing them of the methods adopted to ensure the absolute cleanliness of the milk. The whole question was one which merited more than a mere casual reference. He would be glad to submit a detailed draft for a special chapter on the subject.

The CHAIRMAN said they would now take the consecutive paragraphs of Chapter III.

Paragraph 1.

Dr. TUBIASZ (Poland) proposed the insertion of a reference to a third form of rural health organisation in which both the State and the local authorities co-operated, and described the practical operation of such a system in Poland, which, after some initial difficulties, was now working satisfactorily.

Dr. BOUDREAU (Secretariat) explained that the Preparatory Committee, though fully aware of the existence of other forms, had decided to mention only the two principal systems. Reference could be made in the explanatory notes to the method adopted in Poland.

Dr. PROHASKA (Yugoslavia) suggested referring in paragraph 1 to private health co-operative societies.

The CHAIRMAN thought paragraph 1 was intended to cover official organisations only, but the suggestion made might be considered in connection with the later paragraph on the work of private agencies.

Dr. LUTRARIO (Italy), on a point of drafting, suggested that the words " General Considerations " should form the heading of the whole section and not of paragraph 1 only.

Agreed.

Dr. FERGUSON (Great Britain) presumed there was no intention in paragraph 1 to hamper any action taken by local authorities to improve the general level of health services.

Dr. BOUDREAU (Secretariat), agreed that the Drafting Committee should be asked to make it quite clear that local initiative should be encouraged.

Paragraph 1 *was adopted.*

Paragraph 2.

Dr. LUTRARIO (Italy) noticed that various expressions were used throughout the report for " health officer ", and suggested that the Drafting Committee should adopt a uniform title for that official.

Agreed.

In reply to a query by Dr. Metz (Denmark), Dr. BOUDREAU (Secretariat) confirmed that it had been agreed that public health officers should be fully qualified clinicians.

Paragraph 3.

Dr. LUTRARIO (Italy) suggested the insertion in line 1, paragraph 2, of the words " generally speaking ", after " correspond ", in view of the fact that there might be special geographical conditions militating against strict adherence to the administrative boundaries.

Agreed.

Dr. BERRY (Irish Free State) emphasised the desirability of rural health districts being sufficiently large to enable health officers to trace the exact source of disease ; the figure of 50,000 was a very fair estimate.

Dr. FERGUSON (Great Britain) asked whether the report defined the duties of a medical officer of health. In England, these varied considerably according to the type of local government district. School inspection, maternity and child welfare, tuberculosis and other such services, for example, came under the county council, whereas matters of environmental hygiene, such as sewerage, water supplies and housing, were under the district council. A law had recently been passed providing, in effect, that medical officers of health should, in the future, be whole-time officers; if necessary, two or more districts might combine for this purpose. He took it that the Conference was elaborating a theoretically ideal programme, which it was clearly understood might not be applicable *in toto* to every country.

Dr. BOUDREAU (Secretariat) confirmed that there was a paragraph further on in the report outlining the general duties of medical officers of health.

The CHAIRMAN added that the object of the Conference was to lay down a minimum programme of rural health measures applicable to the maximum number of countries.

Paragraph 4.

Adopted.

Paragraph 5.

Dr. LUTRARIO (Italy) noticed that no mention was made in paragraph 1 of the clerk's qualifications, although paragraph 2 defined those of the health nurses and the sanitary inspector. He suggested the insertion of some such word as " administrative " before " clerk ".

The VICE-CHAIRMAN thought that, in most countries, clerks were assumed to have certain professional qualifications.

The point was referred to the Drafting Committee.

Paragraph 6.

Adopted.

Paragraph 7.

Dr. LUTRARIO (Italy) questioned the appropriateness in paragraph 2, line 3, of the expression " in the absence of doctors ". In Italy, the doctor was compelled by law to notify infectious diseases. The case also of heads of public institutions, such as prisons, did not seem to be covered.

The CHAIRMAN thought it was primarily the doctor who had diagnosed the case who should make the report.

Dr. PRAUSNITZ (Germany) suggested that auxiliary health personnel should also be required to make notifications.

Dr. PELC (Czechoslovakia) thought the problem should be submitted to a joint session of the First and Second Committees.

The CHAIRMAN agreed, but emphasised the necessity of the Second Committee taking a preliminary decision on all such points.

Dr. SPAAS (Belgium), supporting Dr. Lutrario's suggestion, mentioned that, under Belgian law, it was the doctor's duty to notify infectious cases, but that, where he failed to do so, the head of the family took the necessary action. On the further question of the declaration of the cause of death, Belgian law had overcome the objection to the violation of professional secrecy by the adoption of a special form which he could, if necessary, submit for the Committee's information.

In reply to the Spanish delegate's proposal that a seventh point should be added to sub-paragraph C, dealing with the supervision of minor rural industries, like brick-making and the manipulation of vegetable fibres, which were dangerous to the health, the CHAIRMAN thought this came under C (4).

Dr. METZ (Denmark) suggested the addition under C (3) of a reference to the work done on behalf of the aged and infirm.

Dr. SARRAZ-BOURNET (France) confirmed that health officials in various countries had the right to supervise institutions for the aged and infirm, and agreed that the suggested addition was necessary.

Dr. BOUDREAU (Secretariat) thought the suggestion made by Dr. Metz regarding the aged and infirm, as well as that of Dr. Hamel regarding crippled children, might be dealt with in the explanatory notes, particularly as they were social rather than health problems.

Dr. TUBIASZ (Poland) endorsed Dr. Pelc's proposal to insert a reference to supervision of all curative institutions and medical personnel.

Dr. BERRY (Irish Free State) strongly deprecated the idea of a health officer officially supervising the curative work of local practitioners.

The CHAIRMAN fully agreed. A health officer might, however, be given power to supervise the professional qualifications of doctors setting up in practice in his district. He supported Dr. Pelc's suggestion to submit the question of the hygienic supervision of public institutions and their staffs to a joint meeting of the First and Second Committees.

Dr. BOUDREAU (Secretariat) reminded members that most countries already had a system of registration or licensing for medical practitioners.

Dr. FERGUSON (Great Britain) was strongly averse to any semblance of interference with the internal administration of voluntary hospitals ; State-supported institutions were a different matter. Had the Preparatory Committee any views on the provision of hospital accommodation ?

The CHAIRMAN replied that this problem would be dealt with by the First Committee (cf. report, page 13 (6)), and confirmed Professor Parisot's remark that the recommendation proposed would refer solely to supervision by the health officer of the hygienic condition of hospitals, etc.

Dr. FERGUSON (Great Britain) thought reference should also be made to private nursing homes. These were usually subject to supervision by the health officer as regards suitability of accommodation, equipment and staff, but not as regards the treatment administered.

The CHAIRMAN agreed that such a reference might be inserted in the explanatory notes. He concluded that the recommendation regarding administrative supervision of the hygienic conditions of public medical institutions and personnel *was adopted.*

Dr. BOUDREAU's *suggestion that the point regarding supervision of doctors' professional qualifications might be covered by some such wording as*, " Where other supervision does not exist, the public health officer should exercise such powers ", *was adopted.*

Dr. PELC (Czechoslovakia) drew attention to the disproportion between sub-paragraphs A, B and C of paragraph 7 ; C should be given relatively more prominence.

Dr. BOUDREAU (Secretariat) concurred and suggested that the Drafting Committee be asked to reverse the order of A and C.

Agreed.

Paragraph 8.

The VICE-CHAIRMAN stressed the desirability of organising the consultative committees on the basis of the village commune with a membership composed of the mayor, councillors, priest or pastor, schoolmaster and one or two women.

Dr. BOUDREAU (Secretariat) confirmed that that was the sense of the English text of the paragraph.

Dr. TUBIASZ (Poland) wished to have the conjunction " or " in line 4 changed to " and ".

Dr. LUTRARIO (Italy) was sceptical of the value of such committees, and suggested substituting the words " advise on the co-ordination of " for " co-ordinate " in line 1 of paragraph 2.

The CHAIRMAN thought it would really be the duty of the public health officer to co-ordinate health activities.

Dr. FERGUSON (Great Britain) deprecated the tendency of the Conference, in its desire to set up an ideal scheme, to overload the health officer at first with duties which would come to him naturally as the health work grew. He felt that it might delay progress if the health officer were made to appear too powerful. He felt that, in a formal document, it would be more prudent to devolve the responsibility primarily on the committee or the council, though in practice the health officer's advice would be usually adopted.

The CHAIRMAN said Dr. Lutrario's suggestion would be referred to the Drafting Committee.

Paragraph 9.

Adopted.

Paragraph 10.

Adopted, the Drafting Committee to consider the substitution of " administration " (Lutrario) or " communities " (Sarraz-Bournet) for " authorities ".

Paragraph 11.

Dr. MIEMIETZ (Germany) would like to see a reference made at the end of paragraph 1 to the medical profession.

Dr. BOUDREAU (Secretariat) sympathised with the view, but, as the recommendation had entailed very laborious negotiations between health insurance fund representatives and the experts, doubted whether any amendment could now be made.

M. VIMEUX (France) demurred to any change being introduced in the present wording. Indirectly, the medical profession would always be able to collaborate — at any rate, in France. If the profession wished a direct reference to be inserted, it might be done in the following paragraph.

Dr. DECOURT, speaking on behalf of thirty-two medical associations, would like to see a reference to the profession inserted in paragraph 11.

Dr. LUTRARIO (Italy) thought the paragraph should also mention collaboration with " other similar institutions " ; he was referring to such bodies as national Red Cross societies, the Balilla movement, etc.

Dr. BOUDREAU (Secretariat) stressed the essential difference between the organisations mentioned by Dr. Lutrario and public institutions like health insurance funds. The former might be referred to in a special paragraph.

M. VIMEUX (France) pointed out that the idea of the recommendation was to prevent overlapping as between authorities which had financial responsibility for health work, which was certainly not the case with the medical profession. The latter might, of course, be represented on technical committees.

M. UNGER (Germany) also demurred to any change being made in paragraph 11, the main significance of which lay in its being the first authoritative recognition of the necessity of public health authorities collaborating with health insurance institutions. He would like to see alcoholism added to the list of diseases in line 4 of the second paragraph.

Dr. HUMBERT (League of Red Cross Societies) agreed with the recommendation contained in paragraph 11, but suggested it might be made clearer that the collaboration referred mainly to the sphere of finance. As there were various private organisations engaged in combating different social diseases, it was most important to avoid working at cross purposes.

Dr. LUTRARIO (Italy) did not agree that the Red Cross was a private organisation — at any rate, in Italy. In view of its invaluable services in combating various social scourges, it should certainly be mentioned in the following paragraph.

M. PROHASKA (Yugoslavia), reverting to the proposal he had made regarding paragraph 4, now thought that paragraph 11 would be the more appropriate place to insert a reference to " health co-operative societies ", particularly as social insurance was one of the activities of such bodies.

The CHAIRMAN, summarising the discussion, said the Committee had to decide on Dr. Miemietz proposal to insert a reference in paragraph 1 to the medical profession and on Dr. Prohaska's suggestion that health co-operative societies should be mentioned.

Professor PARISOT (France) proposed that paragraph 11 stand as at present worded ; a reference to the medical profession might be made in paragraph 12 and to health co-operatives societies in paragraph 13.

The CHAIRMAN assumed the Committee would agree to the proposal, and also to that of M. Unger for adding alcoholism to the diseases mentioned in paragraph 2, line 4. Due recognition of the importance of the medical profession could be given by devoting a special paragraph to the work and duties of doctors.

Agreed.

SECOND MEETING (JULY 4TH, 10 A.M.).

Chairman : Dr. Bela JOHAN.

Discussion of the Report of the Preparatory Committee[1] : *Chapter III* (Continued).

Paragraph 12.

The CHAIRMAN proposed the insertion of the words " the medical profession " after " authorities " in line 1.

Professor PARISOT (France) thought the French text of the first sentence needed improvement, and that there should be a direct reference in sub paragraph 2 to the work of Red Cross societies.

Dr. HUMBERT (League of Red Cross Societies) referring to the previous day's discussion on paragraph 11, thought it important to avoid giving the impression that the activities detailed in that paragraph concerned public health authorities and health insurance institutions only. The existence of the latter had not affected the work of private agencies combating tuberculosis, venereal and other social diseases. He would, therefore, propose inserting a new sub-paragraph between (2) and (3) to read :

> " That a regular liaison body should be established to decide, when introducing any permanent scheme or fresh programme of rural hygiene, what voluntary contribution might be made in their particular domain by national Red Cross societies or by associations with special experience in combating social scourges. "

On the general question of the appropriateness of special reference being made to the Red Cross, he would like to emphasise the fact that such societies were on a rather different footing from other private agencies, inasmuch as they were constituted in virtue of international conventions and were specifically referred to in Article 25 of the Covenant. He was prepared to leave his proposal in the hands of the Drafting Committee.

The CHAIRMAN felt they were all convinced of the importance of Red Cross work and equally of the necessity for adhering to the recommendation in paragraph 2 (3).

Professor PARISOT (France) suggested the insertion in paragraph 2, line 1, after " collaboration ", of the words " in the activities mentioned in the preceding paragraph ".

Professor KONRICH (Germany), stressing the necessity for wholehearted co-operation between all the factors responsible for rural hygiene, deprecated special prominence being accorded to any one private agency over another.

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[1] See Annex 1.

It was agreed to adopt paragraph 12 with the three amendments as proposed, and, on Dr. BOUDREAU's suggestion, *to quote in the explanatory notes (which would be retained in the final report) the allusion made in Article 25 of the Covenant to Red Cross organisations.*

Paragraph 13.

M. SORENSEN (Denmark), as representing Danish agricultural associations, would like to see a special reference in this paragraph to the value of collaboration with local technical advisers in agriculture and domestic economy and with the officials of Ministries of Agriculture and Economy and the officials of Ministries of Agriculture supervising slaughterhouses, agricultural produce, etc. Such officials had unique opportunities for direct contact with the agricultural population.

The CHAIRMAN said the Drafting Committee would bear M. Sorensen's suggestions in mind.

Paragraph 13 was adopted.

Paragraph 14.

M. SORENSEN (Denmark) thought the work done by local technical and domestic economy schools should not be overlooked when referring to " folk high schools ".

It was agreed to mention this in the explanatory notes.

Paragraph 14 was adopted.

RURAL HEALTH CENTRES.

Dr. LUTRARIO (Italy) thought the Committee was now faced with the most difficult part of its task — viz, the question whether rural health centres were the most effective method of organising health services in rural districts. He would not contest their value, but there was another system already operating in some countries — the county health unit plan — which gave equally satisfactory results. He would be glad in this connection to see a reference also to the Italian *medico condotto*, whose duties corresponded to those of the medical officer of health. The matter might be dealt with by inserting an introductory paragraph before paragraph 1, describing the two alternative forms of organisation, more particularly as this would make the document more consistent with Dr. Stampar's report (document Rural Hyg.Conf.1, page 7).

The CHAIRMAN agreed that the Drafting Committee might be asked to refer to the existence of an alternative system. Perhaps Dr. Lutrario would submit his exact proposals in writing.

Dr. TUBIASZ (Poland) thought the two systems were similar since rural health centres would, as in Poland, come under the county officer of health.

Dr. BOUDREAU (Secretariat) mentioned that the drafting of this section of the Report had given a certain amount of trouble, but the text before them had been adopted as that most likely to prove of value both to older administrations anxious to improve their

systems and to countries which were contemplating the creation of such an organisation. The drafting amendment suggested by Dr. Lutrario would, he thought, be an improvement, but he would deprecate any changes of substance.

Dr. PELC (Czechoslovakia) agreed with Dr. Tubiasz that the two systems were, in essence, identical ; it was merely a matter of nomenclature.

Dr. FERGUSON (Great Britain) felt that the Committee's report should contain a special paragraph describing the county health unit system. A study of document C.H.1045 showed that the underlying principles of both systems were really the same, inasmuch as they both aimed at securing that the medical officer of health should co-ordinate all services. In England, however, the scheme of primary and secondary health centres proposed by the Preparatory Committee would cut across the basis of local government administration, and therefore would be unworkable in the form proposed. In England responsibility for public health was shared between the rural district councils and the county councils, the rural district councils being responsible for environmental hygiene and the county councils for the great personal services.

Dr. MIEMIETZ (Germany) agreed that the recommendations of the report could be accepted, provided an introductory paragraph specifically mentioned that there were other systems operating equally satisfactorily.

Professor KONRICH (Germany) thought the most logical solution would be to start Section B with the " Definition " given in paragraph 4, insert next an introductory paragraph as suggested, and then proceed with paragraphs 1 to 3.

The CHAIRMAN thought the suggestion might be adopted, and asked if paragraph 4 was acceptable.

Adopted.

Paragraphs 1, 2, 3, 5, 6.

Adopted.

Paragraph 7.

Professor PARISOT (France) pointed out that, though the principle embodied in the first paragraph was not in accordance with French practice, he could not refrain from paying a sincere tribute to the results obtained by Dr. Stampar through applying this policy in Yugoslavia.

Dr. MIEMIETZ (Germany) wished to have the word " tuberculosis " omitted from line 2 of the explanatory notes to this paragraph.

Adopted.

Paragraph 8.

Dr. BOUDREAU (Secretariat) had been asked by the representatives of health insurance institutions to point out that it was not implied in 8 *(a)* that the public health officer had any control over health insurance societies.

Adopted.

Paragraphs 9 *and* 10.

Dr. BOUDREAU (Secretariat), replying to Dr. Spaas, suggested that the first " and " in line 4 of paragraph 9 might be substituted by " and/or ".

In reply to Dr. Tubiasz, he explained that the repetition in this paragraph of the activities already enumerated in paragraph 6 was intentional ; it was desirable to avoid any possible misunderstanding. Rural centres acted as filters for the secondary centres, which simply carried the same work a stage farther.

Paragraphs 11 *and* 12.

Adopted.

Paragraph 13.

Dr. PELC (Czechoslovakia) drew attention to a report, copies of which he could supply to those interested, on the work done in Czechoslovakia in standardising equipment for health centres. If the Committee agreed, he would suggest that the League Health Organisation should undertake a study of the problem of standardising such supplies ; a considerable saving would result in the equipment of health centres.

Professor KONRICH (Germany) thought mention should also be made of disinfection apparatus, both stationary and mobile.

Dr. Sadi DE BUEN (Spain), on the general question of organisation, wondered whether it would not be preferable to start with secondary health centres and afterwards develop the primary. He pointed to the difficulty of simultaneously training the larger number of personnel required by primary centres, and feared the quality of the work would be unfavourably affected.

The CHAIRMAN, dealing with the various suggestions made, thought Dr. Pelc's proposal might be referred for detailed study to the Health Section. He took it Dr. Konrich's suggestion applied equally to primary health centres. On the point raised by the Spanish delegate, he thought the logical procedure was to build up from the primary health centre to the secondary ; but, as Professor Parisot suggested, mention might be made in the introductory remarks of the desirability of secondary health centres being available to support the primary.

Paragraph 13 *was adopted.*

Paragraph 14.

Dr. HUMBERT (International Red Cross Societies) proposed the addition of " private health agencies " after the word " institutions " in line 6, so as to enable advantage to be taken of the great potentialities those agencies afforded.

Adopted.

The CHAIRMAN said the Committee's work was now finished ; it only remained to appoint a Drafting Committee to frame the conclusions which had been arrived at. He suggested the following members should act : Dr. Ferguson, Professor Parisot, Dr. Stampar, M. Unger and, *ex officio*, the Chairman and Vice-Chairman. Before

terminating the proceedings, he thought the Committee would wish to acknowledge the valuable work done by Dr. Chodzko and the League Health Organisation in so framing the draft report that it had only required two days' discussion by the Committee.

REPORT OF THE SECOND COMMITTEE.

The Second Committee adopted the following report :

A. General Considerations.

1. There are two principal forms of rural health organisation — the form in which the State administers the local services, and the form in which the State has only supervisory functions, the local authorities being responsible for the local health administration.

Both may give good results, and the form best suited to the rural districts of a given country depends on the manner in which the general administration of that country is organised.

When it is necessary to organise the rural health service, there is need for a State organisation which will assume control over local health work. As the country develops, its local administrative organisation becoming sufficiently strong to carry out public health work, and the education of its people in hygiene being sufficient to cause them to support the local health service, there may be a gradual decentralisation in health matters until the responsibility can be assumed safely by the local authorities.

Even when such a decentralisation has taken place, the State should preserve its right to frame the health policy which it is the duty of the local authorities to carry out, as well as its right to supervise the work and remedy the deficiencies of the local health service.

2. The public health officer fully responsible for the promotion of the health work in a rural district should give his whole time to his official duties ; the practice of medicine, in particular, is incompatible with the work of such an official. He should be a doctor trained in hygiene and preventive medicine according to the recommendations of the Conferences of Directors of Schools of Hygiene at Paris and Dresden (document C.H.888). His compensation should be sufficient to assure him a comfortable living. He should enjoy security of tenure in office, subject to the proper discharge of his duties, and have the right to a reasonable pension when age or the completion of a fixed number of years of service make it necessary for him to retire.

3. The optimum size of a rural district for which one full-time health officer may be responsible will vary with the density of the population, the means of communication, the prevailing diseases, and other local conditions. Subject to these variables, a population of from twenty thousand to one hundred thousand, or an average of fifty thousand, may be fixed, it being understood that one or more full-time assistant health officers will be needed for populations in excess of fifty thousand.

The rural health district should preferably correspond with the administrative district in view of the difficulties which would otherwise result. As, in European countries, such administrative districts almost always have populations in excess of fifty thousand, they may be suitably staffed by the appointment of one full-time health officer with the proper number of assistants.

4. The Conference considers that the health authorities of the rural districts described above should be responsible for the protection and promotion of the public health in all its aspects. The district health officer, as executive officer of the health organisation, should be entrusted with the realisation of the entire programme in order to ensure the economy and efficiency resulting from unity of direction.

5. The minimum staff for such a rural health district should consist, in addition to the health officer, of one or more public health nurses, a sanitary inspector, and a clerk.

The nurse should have a diploma in generalised public health nursing from a recognised school of health nursing or its equivalent. The Conference considers that the programme of such nursing schools should be studied by the competent commission of the League's Health Organisation.

The sanitary inspector should have received suitable training at a school or institute of hygiene. Under the direction of the health officer, he should be able to inspect foods, investigate and abate nuisances and carry out the work of rural sanitation planned by the sanitary engineer.

6. Although in many European countries the rural district as defined above cannot alone afford to employ a sanitary engineer, the services of such an engineer should be available in all rural districts. Such engineers may be employed by the central health organisation, the State or the province. Their work should be that described by the Conference at Budapest.

It is important that the programme and methods of training these engineers in all countries should be perfectly adapted to the work they are required to do. The Conference believes that the study of this subject should be undertaken by the Health Organisation of the League of Nations.

7. *The Programme of the Health Services in such a Rural District.*

(a) *Branches of Work.* — The programme of the rural health services should include measures for dealing with all the health problems which a survey of the district has revealed to be of real importance; in particular it should relate to :

(1) Infectious disease control ;
(2) The campaign against the so-called social diseases ;
(3) Maternal and infant welfare and school hygiene ;
(4) Sanitation ;
(5) Hygiene of milk and foods ;
(6) Education in hygiene ;
(7) Sanitary supervision of medical institutions ;
(8) Where there is no legislation providing for the supervision of medical practice, the public health officer might be entrusted with the registration of medical personnel.

Provision should also be made for first aid and for the transportation of the sick in urgent cases.

Laboratory facilities should be available in accordance with the recommendations of the Budapest Conference.

(b) *Notifiable Diseases and Vital Statistics.* — The effective work of rural health services depends on the completeness of their information on the prevalence of infectious diseases and on the accuracy with which causes of death are certified.

All doctors practising in rural health districts should be required by law to notify the health authorities immediately of every case of an infectious disease which they have examined. In special cases (absence of doctors), heads of families, teachers and local officials should be required to notify suspected cases to the health authorities.

The attending physician should be required by law to fill in a standard certificate of the cause of death and to transmit that certificate to the local health authorities without delay.

The health officer should utilise every means to keep in touch with the prevalence of infectious diseases in his district — routine epidemiological investigations of cases and contacts, charts and graphs, a diagnostic (consultation) service. The returns of causes of deaths should be studied regularly to the end that the general health programme may be suitably adapted to local needs.

(c) *Statistics on Social and Economic Conditions.* — In addition to vital statistics, which permit the health authorities to appraise the results obtained and to adapt their programme to local needs, statistics relating to social and economic conditions (composition of the population, housing, hospitals and other medical institutions, etc.) collected by various agencies — in particular, by health insurance institutions — should be utilised by such authorities.

8. In order to ensure the interest and enlist the support of the public, the Conference considers it advisable to set up advisory councils or consultative committees, composed of leaders in the community or of representatives of agencies [1] which carry on health work.

In the latter case, this Committee should co-ordinate the work of the agencies concerned, and there is every reason to emphasise thise recommendation.

9. In view of the wide variations in health programmes in the different countries and the considerable differences in local conditions, it is not possible at present to recommend a model budget for a rural health district, or to state what should be the *per capita* expenditure for health purposes. It is also impossible to decide on the percentages of the budgets of States, provinces, districts and communes which should be allocated to the health services.

The Conference considers it advisable to secure further information on the cost of rural health services and, to this end, recommends that studies on a uniform plan should be carried out in rural districts under the auspices of the Health Organisation of the League of Nations.

The purpose of these studies should be to determine which effective form of rural health organisation is most economical and, in particular, the cost of the method described by the Budapest Conference in comparison with other methods in use.

10. Official funds for health work in rural districts are derived in varying proportions from the State, the province, the county, the district and the commune. While the State may have to provide the largest proportion when the rural health services are being organised, or in the case of poor districts, it is essential that the proportion contributed locally should gradually increase.

11. In order to avoid deficiencies and prevent duplications in the promotion of the health of the rural population, it is desirable that collaboration should be established between the public health services and social insurance institutions.

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[1] This recommendation does not apply to health insurance institutions, which are treated in paragraph 11.

This collaboration might relate particularly to the following work :

Joint study of plans for the provision of sanitary equipment in rural districts ;

Establishment of vital statistics ;

Campaign against tuberculosis, venereal diseases, cancer, mental diseases, alcoholism, etc. ;

Maternal and infant welfare ;

Child welfare ;

Education in hygiene of the rural population.

The collaboration might be realised by means of " committees of co-operation ", composed of representatives of the public health service and insurance institutions.

12. Collaboration between the health authorities, the medical profession and private health agencies (particularly the Red Cross) is indispensable in the interests of economy and efficiency. The work of private agencies is of great value in view of the interest they arouse in hygiene, and their contribution to the available health resources and equipment.

Useful collaboration between the health authorities and private health agencies within the fields of activity mentioned above presuppose :

(1) The existence of an effective rural health service and a health programme adapted to local needs.

(2) *That the work of private health agencies should be set out in the programme adopted by the responsible local health authorities.* In this way, the health officer will play an important rôle in the technical direction of the work of these and other similar agencies, as he is responsible for all public health work in his district.

(3) That, in each rural district, it would be preferable to have a single private health agency or at least a co-ordination of such agencies, thus avoiding dispersion of effort.

13. Co-operation between the public health authorities, the various agricultural technical advisers and the agricultural associations of all kinds is also highly desirable. Inspired by the desire to raise the standard of life in rural districts, these associations offer a valuable means of securing the co-operation of the rural population. The results of their work are reflected in health as well as in economic and social conditions, and they are concerned with housing and sanitation as well as with other hygienic measures.

14. The Conference desires to draw attention to the higher health standard in rural districts which is obtained by the improvement of general education by such means as the folk high schools in Denmark. Raising the general level of education by such means results in a greatly increased appreciation of hygiene and provides a fertile soil in which to implant ideas of health and sanitation.

B. Rural Health Centres.

1. *Definition.* — The rural health centre may be defined as an institution for the promotion of the health and welfare of the people in a given area, which seeks to achieve its purpose by grouping under one roof or co-ordinating in some other manner, under the direction of the health officer, all the health work of that area, together with such welfare and relief organisations as may be related to the general public health work.

In rural districts where such public health work has been organised for some time, it may be difficult to group all health activities under one roof or in the same organisation. Nevertheless, an attempt should be made to co-ordinate the work of existing agencies in the most effective way.

On the other hand, where a modern public health organisation is to be created in new territory, the health centre, as defined above, is the best method of attaining the desired result.

2. It is necessary at the outset to specify that rural health centres, considered as agencies particularly adapted to the promotion of public health in rural districts, constitute an integral part of the general health organisation. They are, in consequence, closely related to and dependent on all the elements which form that organisation — in particular, the State or provincial institutes of hygiene, which, in several countries, constitute the most fully developed centre on which all others may depend for technical guidance.

3. It is to be understood that the considerations which follow relate to average centres, and that, in addition to these, there may be a large number of different types, the development of any particular centre being necessarily conditioned by local exigencies.

4. There are two methods of classifying rural health centres. They may be designated as small or primary centres and as larger or secondary centres, according to their varying organisation and development ; or they may be divided into village or communal, corresponding to primary, and district *(arrondissement)*, corresponding to secondary centres, according to the administrative subdivisions in which they work.

The Conference expressed its preference for the first of these classifications — that is, their subdivision into primary and secondary health centres.

There should also be branch health centres of the most simple type to enable the work of such primary centres to be carried into the smaller villages.

I. *The Primary Health Centre.*

5. In the general public health armament of a given country, the primary health centre, with its branch centres, represents the terminal stage ; it is the smallest agency adapted to serve the public health needs of the smallest rural area.

The working programme of this centre should be established on the basis of a preliminary survey concerning :

1. The topographical conditions of the district — density of the population, distribution (dispersion) of homes, means of communication. This information will facilitate the selection of the sites, and the determination of the number of health centres and branch health centres required.

2. The health and epidemiological conditions among the people. This information will be equally useful in establishing the centre's programme of work.

6. *The Minimum Programme of a Rural Health Centre.* — In addition to the campaign against those diseases which the survey has shown it to be of the first importance to prevent, the minimum programme of work will consist of :

(a) Maternal welfare ;

(b) Infant welfare, including pre-school and school hygiene ;

(c) Popular health education ; a practical example may be furnished by the provision of shower-baths ;

(d) Sanitation; in general, the centre should deal with all the sanitary conditions affecting the people ;

(e) Finally, provision of first aid in urgent cases.

7. In areas where the absence or insufficient number of physicians prevents the adequate provision of medical treatment, and in the case of patients unable to receive proper treatment elsewhere, the health centre should undertake this work.

On the other hand, in areas where medical care and treatment are adequately provided, the centre should limit itself to such treatment as may be necessitated by the requirements of social prophylaxis.

The adoption of this policy by the health centre will assist in securing the co-operation of the practising physician, who will be all the more disposed to co-operate as the centre, in view of its equipment, is in a position to provide him with valuable assistance in his daily practice.

8. *Personnel :* (a) *The Director.* — The primary health centre, like all other health organisations, is under the general direction of the public health officer and of the health administration of the State.

Its actual administration may be entrusted either to an expert medical officer of health (trained in a school of hygiene) or to a general practitioner with a satisfactory knowledge of medicine and the necessary supplementary training (refer to the reports and conclusions of the Conferences of Directors of Schools of Hygiene). This training should, in particular, relate to social hygiene and preventive medicine on the one hand, and, on the other, to the knowledge required to meet the specific needs of the centre he directs.

(b) *The Public Health Nurse (Health Visitor).* — No organisation concerned with social hygiene can afford to dispense with the services of the public health nurse.

Generalised (polyvalent) rather than specialised public health nursing should be the rule in rural districts.

Depending upon the various activities of the centre, and the amount of work to be done, one nurse may serve one or more centres.

By means of an intelligent adaptation of her work to the minimum programme of the centre, and taking into consideration such varying factors as the number of families and of patients requiring her attention, the density of the population, the distribution (dispersion) of homes and the means of communication, a nurse may undertake to serve a population of between six and eight thousand.

The nurses employed in the primary and secondary centres should be in possession of diplomas as general public health nurses (from a recognised or State school) and should have received, during their professional education, theoretical and practical training which would fit them for their rural work.

When it becomes necessary to organise or extend the rural health service, in the absence of sufficient graduate nurses, possessing diplomas in general public health nursing to fill all the vacancies, is it wise to resort, as an emergency measure and only temporarily, to the services of a personnel which has received only elementary and partial training ?

Without doubt ; but this method should be applied only on condition that it is altogether provisional, and on the understanding that the personnel so employed shall leave the service at the end of a fixed period (at the latest as soon as such personnel can be replaced by graduate public health nurses), unless they undertake to complete the training leading to the award of the diploma mentioned above.

(c) *The Midwife.* — Should the services of midwives be utilised in the work of the centre, and, if so, under what conditions and in what way ?

The fact that the midwife is in a position to render important services to the centre in the care of pregnant women (pre-natal care), as well as in the supervision of the infant during the first days of life, is beyond question.

In these respects, the midwife will become a useful assistant to the nurse entrusted with this work, solely on the condition, however, that she possess the proper qualifications, not only as a result of her training (diploma in midwifery), but also on account of the special instruction she has received in the work entrusted to her.

Under these conditions, the midwife may be attached to the personnel of the centre, to carry out these well-defined tasks, under the direction of the medical director of the centre. The possibility of utilising her services in this capacity will be facilitated in the case of midwives already in the employ of villages (communes).

(d) *The Sanitary Inspector.* — The sanitary inspector will be entrusted with the supervision and execution of minor sanitary improvements (under the technical supervision and direction of the sanitary engineer attached to the secondary centre), as well as of the measures having to do with general health work, such as disinfection, etc.

II. *The Secondary Health Centre.*

9. The secondary health centre is a more fully developed organisation than the primary centre on account of its greater completeness of equipment, its larger personnel and the wider scope of its work.

The secondary centre directs and co-ordinates the work of primary centres and, at the same time, ensures liaison between them and all other health and welfare agencies — in a word, all agencies connected with the promotion of public health.

10. *Programme.* — In addition to its work as a primary centre (in its immediate neighbourhood) and to the prevention of those diseases which have been shown to be important problems by the preliminary survey already mentioned, the secondary centre should deal with the following :

(1) The campaign against tuberculosis ;

(2) The campaign against venereal diseases ;

(3) Maternal welfare work ;

(4) Infant welfare work (including the child of pre-school age) with special emphasis on the welfare of the child of school age (school polyclinics) ;

(5) Health education — first, for the general population ; second, by means of special courses and field work for (*a*) doctors, *(b)* nurses, *(c)* midwives, *(d)* sanitary engineers and inspectors ;

(6) Sanitation ;

(7) Laboratory analyses, of a simple and routine character.

The Conference was of the opinion that, in addition to this work, the centre might undertake the provision of first aid in urgent cases and ensure the prompt transport of sick and accident cases by supervising the proper organisation of this service.

11. *Personnel :* (a) *Medical Director.* — The medical director of the secondary centre should be a full-time physician trained in public health ; this work should preferably be entrusted to the medical officer of health in charge of the dictrict.

(b) *Nurses.* — The rules set out above concerning public health nurses also apply here, it being understood, however, that, in view of the greater development of the secondary centre, the nursing staff attached to it should be in proportion to the work.

(c) *Midwives.* — The considerations set out above concerning the employment of midwives apply also to the secondary centre.

(d) *The Sanitary Engineer.* — Sanitary engineering work forms an integral part of the work of the secondary centre.

This service should be directed by a sanitary engineer with special training for rural work who will be attached to the staff of the centre or seconded for that purpose from the central institute, according to local conditions.

The sanitary engineering work in the district served by the secondary centre will, in general, deal with all matters concerning major and minor sanitation, such as provision of pure water, sewage and refuse disposal, housing, etc.

(e) *The Sanitary Inspector.* — As many as may be necessary, in view of local conditions (see the considerations above respecting these inspectors).

(f) *Laboratory Technicians.* — In the administration of the public health services, it should be emphasised that, as a general rule, the laboratory investigations (which not only necessitate the most careful technique, but also a fully experienced staff and the most complete equipment) should be undertaken at the institute of hygiene, and that only analyses of the most elementary and routine character should be made at the secondary centre.

Consequently, it will not be necessary in most cases to secure for the centre the services of an expert laboratory technician, as it should be possible to utilise the existing staff for the elementary work which may have to be done.

The State institute or central hygienic laboratory will utilise the secondary centre as a depot and centre of distribution for its sample containers.

This is the personnel essential for the administration of such a centre ; but, in case of greater development of one or more of its sections, it may become necessary to secure the services of other technicians (for X-rays, etc.).

Naturally, a suitable subordinate personnel will be required for its internal administration.

12. *Committees which might assist the Primary and Secondary Health Centres.* — The Conference was of opinion that the work of these centres might receive greater support through the establishment of committees ; first, the official health committee provided for by the sanitary legislation of the State ; secondly, a non-official committee, including in its membership representatives of the local administration, the medical profession, social insurance institutions, the teaching profession, the clergy, private welfare agencies, and, in general, of all who might contribute to the development and the prosperity of the centre on account of their moral, political or financial influence.

13. *Equipment.* — The secondary centre should be fully equipped in accordance with the requirements of public health and modern medicine. In particular, there should

be : a standard Röntgen-ray outfit (a mobile outfit as well, if necessary) ; shower-baths ; motors for the transport of the staff.

The Conference considered that failure to provide the staff with the means of transport to enable them to do their work rapidly and to reach all parts of their district would reduce greatly the scope of their technical work.

14. *Relationship of the Centre to Other Health Agencies.* — Certain of the agencies with which the health centre should be in (relationship secondary health centres, specialised dispensaries, institutes of hygiene) also form integral parts of the general health organisation of the country. In such cases, the proper relationship already exists. With others (establishments for treatment and prevention, hospitals, sanatoria, preventoria, social insurance institutions, private health agencies), relationships should be established which will permit the centre to obtain their help either directly or through the secondary centres.

CHAPTER V. — CONSTITUTION, MINUTES AND REPORT OF THE THIRD COMMITTEE (SANITATION).

List of Members of the Third Committee. — Minutes : First Meeting (July 2nd, 5.30 p.m.) : Procedure : Opening of the Discussion on Water Supplies. — Second Meeting (July 3rd, 10 a.m.) : Close of the Discussion on Water Supplies, Opening of the Discussion on Housing. — Third Meeting (July 3rd, 3.30 p.m.) : Continuation of the Discussion on Housing ; Discussion on Bonifications, Opening of the Discussion on the Disposal of Sewage. — Fourth Meeting (July 4th, 10 a.m.) : Close of the Discussion on Sewage and Refuse. — Report.

LIST OF MEMBERS OF THE THIRD COMMITTEE.

Chairman :

M. M. VIGNEROT	*France.*

Vice-Chairman :

M. M. PETRIK	*Yugoslavia.*

Members :

Mr. K. LERCH	*Austria,*
Mr. J. VAN DER VAEREN	*Belgium,*
Mr. R. KOLAR	*Czechoslovakia,*
Mr. ZELENKA	*Czechoslovakia,*
Mr. S. SORENSEN	*Denmark,*
Mr. AUGÉ-LARIBE	*France,*
Mr. M. BONIS-CHARANCLE	*France,*
Mr. DABAT	*France,*
Mr. Jules GAUTIER	*France,*
Mr. P. VIMEUX	*France,*
Dr. B. BÜRGER	*Germany,*
Dr. W. MIEMIETZ	*Germany,*
Dr. G. SEIFFERT	*Germany,*
Mr. H. R. HOOPER	*Great Britain,*
Mr. A. PALLIS	*Greece,*
Mr. D. WRIGHT	*Greece,*
Dr. B. JOHAN	*Hungary,*
Mr. N. SIEGESCU	*Hungary,*
Mr. C. BUTTINI	*Italy,*

Prof. V. PUNTONI	*Italy*,
Mr. G. ZAMBELLI	*Italy*,
Dr. J. N. M. JITTA	*Netherlands*,
Mr. W. F. J. M. KRUL	*Netherlands*,
Dr. J. H. TUNTLER	*Netherlands*,
Mr. Ferraz DE ANDRADE	*Portugal*,
Mr. M. ENESCO	*Roumania*,
Mr. G. ARROYO	*Spain*,
Mr. J. Coll CREIXELL	*Spain*,
Mr. H. SANTIAGO	*Spain*,
Mr. J. LAZARO-URRA	*Spain*,
Mr. N. H. WRANNE	*Sweden*,
Mr. R. RUBATTEL	*Switzerland*,
Dr. M. RANKOV	*Yugoslavia*.

Observers :

Mr. LOU	*China*,
Professor PRAUSNITZ	*Germany*,
Dr. HAMANO	*Japan*,
Dr. TSURUMI	*Japan*,
Mr. TOWNSEND	*United States of America*.

Secretary :

Dr. FORESTIER.

FIRST MEETING (JULY 2ND, 1931, 5.30 P.M.).

Chairman : M. VIGNEROT (France).

Changes in the list of members of the Committee (document Conf. Hyg. Rur. 15 (1)).

The name of Mr. Juan LAZARO-URRA, Professor at the School of Sanitary Engineering, Madrid, was added to the list of members of the Committee and Dr. PELC's name was removed.

Procedure of the Third Committee.

The CHAIRMAN recalled that the principal documents before the Third Committee were the reports of Dr. Bürger, Mr. Krul, Mr. Ross Hooper and Mr. Bonamico. The substance of those reports had been given at the plenary Conference and there was no need to go over the same ground. There was also the experts' report, contained in the Brown Book, which consisted of two main parts — the principles derived from the matter

contained in the technical chapters and the technical chapters themselves. All the passages in italics constituted the conclusions proper adopted by the experts, whereas the passages in roman type were comments drawn up by the Health Section, which took into account the preliminary reports of the experts and the discussions to which those reports had given rise.

The Chairman considered that it would be well to begin by examining the technical chapters, taking last the opening chapter, which was given up to general principles and could, if necessary, be amended in accordance with the discussions on the technical chapters.

Examination of the Preparatory Committee's Report : *Chapter IV.*

As Dr. Bürger's report had not yet been distributed in the French and English texts, the President proposed to begin with Section B, " Water Supply " (page 39 of the Document C.H./1045).

B. Water Supply.

Introduction.

The conclusion which served as an introduction to the chapter on water supply was read.

M. Krul (Netherlands) considered that it would be well to add something about the collaboration of co-operative societies and agricultural associations.

The Chairman said that that collaboration was concerned with the various aspects of rural sanitation and would be more suitably placed among the general principles which would be considered at the close of the discussion.

Mr. Ross Hooper (Great Britain) remarked that, in the second sentence of the commentary, it was stated that an abundant water supply " has also an important indirect influence, due to the cleanliness it promotes in houses, stables, dairies, etc.". He proposed that the word " indirect " should be deleted.

M. Krul (Netherlands) said that that term was used in contradistinction to the word " direct ", used in the sentence before.

Dr. Bürger (Germany) considered, in regard to the last words of the first conclusion, that the supply of pure water in rural districts was of great value, not only for the promotion of agriculture, but, in general, for civilisation. He proposed to substitute the word " civilisation " for " agriculture ".

The Chairman explained that " the promotion of agriculture " had been intentionally mentioned in order to draw the special attention of farmers, from the professional point of view, to questions of this kind.

As the result of an observation by Mr. Townsend (United States of America), the first words of the comments : " an abundant supply of water " were changed to " an abundant supply of *pure* water ".

M. VAN DER VAEREN (Belgium) thought that the Committee was required to give its opinion only on the passages in italics — that is, on the conclusions proper and not on the comments.

M. PALLIS (Greece) feared that the discussions of the Committee would be unduly prolonged if it had to discuss the comments in detail.

Dr. JITTA (Netherlands) endorsed this point of view. The Conference would give its opinion on the conclusions finally reached by the Third Committee and not on the report of the Preparatory Committee — that is, the comments.

M. VIMEUX (France) also supported this proposal.

M. BONIS-CHARANCLE thought that it would be well to draw attention to the fact that the consumer would be all the more desirous of using an abundant water supply if he had less trouble in obtaining it. Individual branch pipes should therefore be encouraged.

M. VIMEUX (France) pointed out that this suggestion should properly come under Section 1, " Public Water-Supply Systems ".

The first conclusion was adopted.

1. *Public Water-Supply Systems.*

(a) *For a Number of Villages.*

On the proposal of M. KOLAR (Czechoslovakia) *the word " villages " was replaced by " settlements " (in French " agglomérations ").*

The CHAIRMAN pointed out a misprint in the second line of the conclusions in the French text.

Dr. JITTA (Netherlands) considered that it would be better to make a transition between the first and second conclusions. For that purpose the following passage from Mr. Krul's report might be reproduced :

> " The choice of the most effective and economical method depends on varying factors, such as the hydro-geological and topographical conditions, the climate, the administrative organisation of the country, economic conditions, the density and character of the population. ".

The CHAIRMAN wondered whether that passage had not better be placed in the comments.

M. DABAT (France) pointed out that the words : " when there was no special circumstance against it " summed up very clearly what Dr. Jitta meant to say.

Dr. BÜRGER (Germany) proposed to replace the words : " a large supply is always to be preferred to a smaller one " by " a large supply always has certain advantages over a smaller one ".

He would also be in favour of deleting the following phrase : " This system is to be recommended, particularly in the more populated areas . . . . " ; otherwise, it would sometimes be necessary to bring the water supply over too great a distance in the more populated areas.

M. Juan LAZARO-URRA (Spain) observed that it was not sufficient to recommend an improved water supply ; a recommendation should also be made that there should be a water supply of some kind, for certain rural districts in Spain, for instance, were entirely devoid of such a supply, in which case the settlements should be considered first. They should at least have the water required for drinking and domestic purposes, for watering the animals and washing clothes.

M. AUGÉ-LARIBE (France) pointed out that it would be sufficient to add to the first paragraph of the conclusions of Section 5 regarding the Central Organisation : " Such an organisation would also constitute a service of hydro-geological information with a view to ascertaining the water available, etc. "

M. RUBATTEL (Switzerland) believed that the third Committee ought to simplify the conclusions rather than complicate them. It seemed to him preferable to adopt texts to which everyone might subscribe without trying to introduce considerations affecting any given country in particular. In his opinion, it would be better to retain only the first sentence of the first paragraph under discussion.

M. DABAT (France) pointed out that by so doing the second paragraph would disappear, though it contained an idea not implicit in the first three lines of the first paragraph.

The CHAIRMAN added that it was the duty of the Conference to give practical advice to the various health administrations. Without being drawn into long commentaries, it was necessary at least to provide sufficiently full explanations.

M. RUBATTEL (Switzerland) replied that what was required was the adaptation to varying national conditions of the principle implied in the three first lines. Each country had specialists capable of adapting that principle to its own special conditions.

The CHAIRMAN pointed out that the Committee had before it three proposals :

(1) M. Bonis-Charancle proposed to call attention to the advantage of a water supply in the home.

(2) Dr. Jitta wished to supplement the conclusion under discussion by a passage which would serve as a connecting-link.

(3) M. Rubattel asked that the conclusions in general should be reduced, which raised a question of principle regarding the manner in which the Committee intended to pursue its work.

M. KRUL (Netherlands) thought it important to distinguish clearly between the general principles and the comments. If the principle laid down in the first sentence, concerning the advantages of a centralised water-supply system, were considered sufficient, the principle expressed in the following sentence — namely, that an extensive system was better than a small system — would be discarded. There were, however, villages without any water-supply system in which it might at first seem desirable to begin by installing a small system, whereas it was better to take a broader view (except, of course, in certain local circumstances) and group villages together in a regional system rather than instal a small system in each village.

M. Augé-Laribe (France) proposed that the two paragraphs of the conclusion under discussion should be maintained intact.

M. Rubattel (Switzerland) would, in any case, oppose the sentence : " a large supply is always to be preferred to a smaller one ". In Switzerland, there were whole cantons in which the villages were supplied, not by grouping communes, but by an organisation directly dependent on the Government. The tradition was firmly rooted in Switzerland that each commune should have its own water supply under Government supervision in individual cases.

Mr. Ross Hooper (Great Britain) thought that the two paragraphs of the conclusion in question embodied sound principles. Rough indications were of little practical use. It could obviously not be expected that all the suggestions contained in this conclusion would be directly applicable to every commune ; but, in any case, detailed explanations had more advantages than disadvantages. Each country would select those proposals which suited its special conditions.

M. van der Vaeren (Belgium) proposed that the first and second sentences of the first paragraph should be combined to read :

> " The system of central water supply distributed to a number of communities is to be preferred to a small one, where practicable, under local conditions. "

M. Rubattel (Switzerland) was prepared to agree to a motion on these lines. He proposed that a drafting committee should be asked to consider any new texts which might be suggested.

The first paragraph was adopted, with the text proposed by M. Van der Vaeren.

Second Paragraph.

Prof. Puntoni (International Institute of Agriculture) drew attention to the sentence : " It follows that the source which can be developed most economically may be selected, as purification will remove the possibility of danger, " etc. In his view, the method of treatment was not a matter of indifference. The filtration method was costly and the use of chlorine had other disadvantages ; in particular, it gave the water an unpleasant taste which remained.

The text should be modified so as to show that purification must be considered as a remedy when a better quality of water was not available, but that the kind of treatment employed was not a matter of indifference. In some cases, it would be better to spend more money on the installation and thus economise later on purification.

The Chairman pointed out that the Committee was at present considering public water supply—*i.e.*, very large systems for which springs were not always found. It was in these cases that, for want of better methods, the water must be purified. It was stated in the conclusion that purification would be easier according as the system was more extensive. With regard to the supply for individual villages (paragraph *(b)*), it was stated further on that purification processes requiring technical supervision which would be impracticable in rural districts should be avoided.

Professor Prausnitz (Germany) made the following remarks, based both on his personal experience of the Breslau water-supply service and on the great difficulties which

had been encountered in Western Germany in villages dependent on centralised supply systems. These difficulties had arisen particularly from the use of chlorine, which gave a most unpleasant taste. The disadvantage was smaller in towns than in country districts, where there was a risk of peasants losing faith in a system devised according to hygienic principles and returning to their well water. Would it not be better, from the economic point of view, to spend more on obtaining water which was good at its source than to use surface or other water which required purifying and necessitated a system demanding very careful supervision ? Moreover, in spite of all the supervision exercised in the villages in question in Western Germany, serious epidemics had broken out.

The CHAIRMAN pointed out that the draft conclusions referred to purification only where it was necessary and were not concerned with the case of individual villages. There was no doubt that efforts must be made to find naturally pure water before taking the risk of a process of purification ; it was only stated that, if treatment was necessary, it would be more satisfactorily carried out in the case of a large supply.

M. RUBATTEL (Switzerland) had not the slightest desire to criticise co-operative societies, but feared that, by retaining the expression " co-operation of a number of villages ", the Committee might appear to be recommending a system of co-operative societies.

The Committee decided to replace the word " co-operation " by " grouping ".

The CHAIRMAN asked Prof. Puntoni whether he insisted on a change of drafting or whether it was sufficient for the various explanations to be recorded in the Minutes.

Prof. PUNTONI (International Institute of Agriculture) explained his intention. The conclusion seemed to say that, if there were two sources — a pure source requiring certain installation expenses and a less pure source requiring less expense of that kind but necessitating purification processes — the second should be preferred ; that should, however, not always be the case.

M. AUGÉ-LARIBE (France) thought it would be sufficient to replace the word " source " by " system " in the sentence, " It follows that the source which can be developed most economically may be selected ". Thus, if the purification system was shown to be the more costly, it would not be the more economical.

The CHAIRMAN thought that the sentence might be omitted so as to obviate any anxiety on the point.

M. GORNI (International Labour Office) considered, however, that it would be useful to maintain the suggestion that, when there was an association of communes, there might be greater probabilities of finding water.

M. VAN DER VAEREN (Belgium) proposed that, in the last sentence, the words " any modern method of purification " should be replaced by " any effective method ".

At the CHAIRMAN'S suggestion, *the Committee decided to omit the word " modern ".*

The second paragraph was adopted with the various amendments.

Constitution of a Drafting Committee.

On the proposal of Dr. BOUDREAU, *the Committee decided to ask the Chairman to appoint a small drafting committee.*

SECOND MEETING (JULY 3RD, 1931, 10 A.M.).

Chairman : M. VIGNEROT (France).

Examination of the Preparatory Committee's Report : *Chapter IV* (continued).

B. WATER SUPPLY (continued).

1. *Public Water-Supply Systems* (continued).

The CHAIRMAN stated that, in view of a suggestion made by the Secretariat, the procedure for examining the report would be changed. The Committee's task was to discuss the experts' report, but it must leave the drafting of any proposed amendments to the Drafting Committee.

M. ZAMBELLI (Italy) suggested inserting in the chapter on public water-supply systems an account of what had been done in Italy. He referred, in particular, to the construction of aqueducts mentioned on pages 32 and 64 of the document Conf. Hyg. Rur. 13.

The CHAIRMAN stated that this information would be brought to the notice of the Secretariat, who would no doubt endeavour to include it in the report.

M. KOLAR (Czechoslovakia) pointed out that paragraph *(b)*, which was entitled " For Individual Villages ", might also refer to a group of villages, and he thought the heading should be changed.

He also suggested changing the order of the various sections under the heading " Water Supply " as follows : (1) Public Water-Supply Systems; (2) Individual Water Supplies ; (3) Purity of the Water ; (4) Supervision of Water Supplies ; (5) The Central Organisation.

The CHAIRMAN pointed out that the Committee had only to discuss questions of principle. It was unnecessary to raise questions regarding the re-arrangement of the report unless they involved some important principle. He therefore proposed to leave this question to be settled by the drafting committee.

Dr. JITTA (Netherlands) suggested that the end of the first paragraph of paragraph *(b)* should be worded :

" In order to secure, as far as possible, water free from any dangerous contamination. "

The CHAIRMAN did not agree with this amendment, as he considered that, if the water was not subject to purification, it should be free from the possibility of contamination.

Dr. JITTA (Netherlands) thought it would never be possible to ensure a water free from any possibility of contamination. It might be possible to omit the words " the possibility of ".

The CHAIRMAN suggested retaining the original wording and adding " whenever used without purification ".

M. KOLAR (Czechoslovakia) suggested inserting in the second paragraph of paragraph *(b)*, " especially from the point of view of technical supervision ", in order to show that there might be other reasons for avoiding the necessity of systems of purification.

The CHAIRMAN said that remark would be noted for the drafting committee.

M. BONIS-CHARANCLE (France) suggested inserting the following text :

" The consumer will have all the more desire to use water in abundance if he has little difficulty in procuring it. The ideal solution is to instal a water supply in the house or the farm or, more generally, within reach of the consumer. "

M. KRUL (Netherlands) asked whether this applied to pipe water or to individual supplies.

The CHAIRMAN said it referred to both. The idea was to have the water supply as near as possible.

He said the Drafting Committee would take this proposal into consideration.

Section 1 *(Public Water-Supply Systems) was adopted, subject to the modifications suggested by the Committee.*

2. *Purity of the Water.*

M. JITTA (Netherlands) suggested altering " disinfection " to " sterilisation ".

Dr. BÜRGER (Germany) did not agree. The object was not to sterilise but to disinfect the water. If chlorine was used, for instance, it killed harmful bacteria, but did not sterilise the water.

The CHAIRMAN said these remarks would be noted. Possibly such an expression as " chemical purification " might satisfy both parties.

M. VAN DER VAEREN (Belgium) suggested altering the words " lines of defence " to " measures ".

M. PUNTONI (International Institute of Agriculture) suggested that disinfection was one form of purification and might therefore be included under point 2.

M. AUGÉ-LARIBE (France) suggested that paragraph 3 should read.

" When the water is drawn by rocky formations in which fissures exist (limestone), it *must* be adequately purified. "

With regard to point 1, " Protection of the Source ", some words should be added in brackets referring to the area, conduits, etc., in order to explain the meaning.

Prof. PUNTONI (International Institute of Agriculture) referred to point 4, " Supervision ", and suggested it would be impossible to establish international principles for the supervision of water. Different criteria were adopted for testing water for bacteria in different countries, and theoretical principles should not be rigorously applied to all. He thought some remark to this effect might be inserted in the comments on this section of the report.

The CHAIRMAN asked Prof. Puntoni to prepare a text in writing.

M. KRUL (Netherlands) approved of this idea, but thought the word " supervision " should not refer only to bacteria, but should be used in its widest sense, as in section 3 of the report.

Section 2 (Purity of the Water) was adopted, subject to the above comments.

3. *Supervision of Water Supplies.*

M. AUGÉ-LARIBE (France) wished to include a remark condemning open conduits for water supplies.

The CHAIRMAN pointed out that this idea was covered by paragraph 2 of Section 2, " Purity of the Water ", where reference was made to the protection of the source and supervision of the supply.

M. AUGÉ-LARIBE (France) nevertheless thought that a sentence should be inserted deprecating the use of open conduits.

M. BUTTINI (Italy) thought that, as it was impossible to exclude sources which were not absolutely pure, it was unnecessary to refer to open conduits.

The CHAIRMAN further pointed out that closed conduits could not be laid through rocks. He suggested that M. Augé-Laribe's remark might go into the comments on the report.

M. RUBATTEL (Switzerland) suggested omitting the word " public " in the first sentence, as this would enlarge the scope of the supervision.

The CHAIRMAN said the supervision actually referred to public water supplies. With regard to private supplies, supervision was in the hands of the police. He was therefore not in favour of omitting the word " public ".

M. BUTTINI (Italy) suggested that the comments on Section 3 should include a statement of the great progress made in Italy, where 210,000,000 lire had been spent on rural water supplies in the last seven years.

Dr. BOUDREAU (Secretary) stated that the Secretariat had been responsible for the comments on the report. It had been obliged to restrict itself to material available in the Secretariat and information contained in speeches in the committees. It had had to be very careful not to insert any information for which it could not vouch. He would be glad to receive the information with regard to Italy and to insert it in the report.

Section 3 (Supervision of Water Supplies) was adopted, subject to the above remarks.

4. *Individual Water Supplies.*

M. AUGÉ-LARIBE (France) approved the idea contained in the second sentence to the effect that wells, etc., should be constructed by qualified technicians. He thought, however, the qualifications should be defined. The contractors might, for instance, be required to have certain diplomas showing that they had followed certain professional courses.

The CHAIRMAN thought this idea might be inserted in the comments.

M. RUBATTEL (Switzerland) agreed with M. Augé-Laribe and thought the construction of wells, etc., should be under State supervision, as a question of public interest arose even in the case of private water supplies.

The CHAIRMAN stated that the essential principle was that the contractor should have followed a special course of instruction and should have obtained a certificate. He thought that the method of application should be left to the individual countries.

M. RUBATTEL (Switzerland) thought State control was more important than certificates.

M. AUGÉ-LARIBE (France) thought this was going too far. If such strict conditions were laid down for contractors, then no more wells would be sunk. He had no objection to State control, but time must be allowed for the training of contractors in the hygiene of water.

Dr. JITTA (Netherlands) was in favour of leaving the word " qualified " unchanged and allowing each country to settle the method of application.

M. GAUTIER (France) and M. VAN DER VAEREN (Belgium) agreed with Dr. Jitta.

M. RUBATTEL (Switzerland) did not insist on the insertion of his remarks regarding State supervision.

M. AUGÉ-LARIBE (France) suggested changing the words " adequately enforced " in the second paragraph to " strictly enforced ".

The CHAIRMAN agreed.

Section 4 (Individual Water Supplies) was adopted, subject to the above remarks.

5. *Central Organisation.*

M. GAUTIER (France) thought the word " province " at the end of paragraph 2 should be replaced by some other term with a wider meaning — for instance, " district " or " other competent administrative unit ".

The CHAIRMAN suggested leaving this to the Drafting Committee.

M. KRUL (Netherlands) suggested inserting a conclusion regarding State financial assistance. This was referred to in the " General Considerations " on page 35 (fsee document C.H./1045), and also under " Housing " on page 43 (document C.H./1045). He suggested adding some remarks on the lines of the first sentence of Chapter 6 of his report (document Conf. Hyg. Rur. 7).

In reply to the Chairman's remark that this idea was already included in the report, he stated that, if it were specially mentioned in the chapter on the water supply, it would serve to stress the point. Moreover, the chapter on housing already contained such a remark.

Dr. JITTA (Netherlands) supported M. Krul's proposal. He thought the good results obtained in respect of water supply in Holland were due to the financial help received from the Government.

Mr. HOOPER (Great Britain) said that many countries had found credit helpful in respect of the water supply. He would prefer not to mention one country only, but to refer to the assistance obtained in many countries.

The CHAIRMAN asked M. Krul to draft an additional paragraph to be inserted in the chapter on water supply.

M. DABAT (France) thought that, if a further paragraph on financial assistance were inserted, it might express the desirability of increasing the subsidy for intercommunal water supplies rather than for individual supplies.

Mr. HOOPER (Great Britain) thought this would penalise one party to the advantage of another. It would be unjust, as intercommunal supplies were not always possible.

The CHAIRMAN thought complete freedom in this respect should be left to the various countries.

M. DABAT (France) withdrew his proposal.

Section 5 (Central Organisation) was adopted, subject to the above remarks.

Composition of Drafting Committee.

After discussion, *it was agreed that the Drafting Committee should consist of the Chairman, the Vice-Chairman and the four Rapporteurs.*

Examination of the Preparatory Committee's Report : *Chapter IV* (continued).

C. Housing in Rural Districts.

M. Gautier (France) objected to the word " adequate " in the third paragraph.

M. Rubattel (Switzerland) suggested omitting the reference to " the depressed condition of agriculture " in the first paragraph, as the principles laid down were intended to apply even after that depression had been overcome.

He said that the reference to " the lack of cheap credit " was not true for all countries, and suggested making a change in the wording in order to bring out this idea.

Mr. Hooper (Great Britain) recalled that, when the experts drafted Section 2, item *(g)*, they had intended to convey the idea that the site was unsuitable and not that there was insufficient exposure to the sun.

M. Petrik (Yugoslavia) pointed out that the site was dealt with in item *(d)*, and that the experts, in referring to insufficient exposure to the sun, had had in view the neighbourhood of high trees.

The Chairman proposed that it should be left to the Drafting Committee to settle this question.

M. Gorni (International Labour Office) noted that item *(c)* referred to protection from the stables. He thought this should be extended to include manure heaps, which should be at a certain distance from the house.

M. Gautier (France) suggested that the opening sentence of Section 2 should begin : " The principal defects of rural housing *to be avoided* . . . "

The Chairman agreed.

Dr. Jitta (Netherlands) referred to item *(b)*, which provided for toilet and sanitary facilities. The comments referred to water-closets. This should include privies. In this respect, the French text of the comments should be made to agree with the English text.

M. Augé-Laribe (France) thought some remark should be inserted regarding the disposal of sewage and refuse, which were often merely thrown in front of the house.

M. Petrik (Yugoslavia) suggested that item *(f)* should also provide for protection from dust.

M. Augé-Laribe (France) referred to the statement in the comments that open fires without vents were unsatisfactory, and also that the water supply and the privy were frequently inconveniently situated. He thought much stronger terms should be used, deprecating these arrangements.

M. Gorni (International Labour Office) thought Section 3 of the chapter on housing should be placed either immediately after Section 1, or at the end, so that it would apply also to the housing of agricultural workers.

M. KOLAR (Czechoslovakia) objected to the French text of Section 3 *(b)* " *améliorer l'agriculture* ". It was not a question of improving the methods of agriculture, but of improving the economic position of the farmer.

M. AUGÉ-LARIBE (France) said that Section 3 raised an important question. It contained two ideas which were not compatible. One paragraph stated that the construction of model houses encouraged imitation, while another paragraph stated that there should be building codes prescribing minimum requirements. The latter idea implied intervention by the authorities. He thought it would be better to allow a transitional period during which the spirit of imitation would operate.

M. RUBATTEL (Switzerland) thought that the proviso contained in Section 3 *(c)* was unnecessary.

Moreover, there was another method of improving rural housing which was not mentioned namely, the utilisation of building societies. In two cantons in Switzerland the authorities granted subsidies to rural workers building their own houses.

M. AUGÉ-LARIBE (France) pointed out that, in the French text, the word " *emprunts* " in Section 3, paragraph 5, should be changed to " *prêts* ". He did not understand the second sentence of this paragraph.

The Drafting Committee should bring this sentence into line with the English text.

He also proposed that relief from taxation might be included as a further encouragement for proper construction.

M. BUTTINI suggested that, in the last paragraph of Section 3, it should be made clear that the standard plans should satisfy the sanitary requirements of the particular district. Such requirements might vary considerably in different places.

Sections 1 *to* 3 *of the chapter on housing were adopted, subject to the above remarks.*

THIRD MEETING (JULY 3RD, 1931, 3.30 P.M.).

Chairman : M. VIGNEROT (France).

Examination of the Preparatory Committee's Report : *Chapter IV* (continued).

C. HOUSING IN RURAL DISTRICTS (continued).

2. *Principal Defects of Rural Housing* (continued).

The CHAIRMAN stated that, in order to meet a suggestion by M. Zelenka (Czechoslovakia), the Drafting Committee was requested to enquire whether indications could be given as to the height, or, more generally, as to the dimensions, of the houses. Two other suggestions by M. Zelenka regarding the bad drainage of water and the smallness of rural buildings had been met by certain additions inserted by the Drafting Committee.

3. *Methods of improving Rural Housing* (continued).

M. Augé-Laribe (France) pointed out that building codes had existed, for instance, in France, for more than twenty years, but that they were difficult to apply. When introducing a law on hygiene, the necessary time should be allowed for the parties concerned to adapt themselves to it ; otherwise, the law would remain a dead letter. In order to make the experts' wording more elastic, he proposed to state that the building regulations should allow for a certain time-limit and for certain measures of education.

On the Chairman's proposal, the paragraph in question (" there should be building codes", etc.) *was extended by the words* " as well as proper preparation by measures of education ".

Paragraph 3 *was adopted, subject to final drafting.*

4. *The Improvement of Housing for Agricultural Workers.*

M. Gorni (International Labour Office) proposed to add thef ollowingp aragraph :

" The organisation in the different countries of inspection services is desirable. Such services should see that the health conditions of the dwellings of the agricultural workers are satisfactory and that the legislative provisions on this subject are enforced. The personnel of these services should have the necessary authority to enforce these legislative provisions. "

In addition, in the last paragraph, the words " on this subject " would be replaced by " on the subject of the housing of agricultural workers ".

Some countries already possessed a supervisory service. The new Italian law on the *Bonifica integrale* provided for an inspection service in the case of premises to be built. The new French law on workers' houses also provided for a supervisory service. These measures might be made general.

M. Augé-Laribe (France) wished the houses to be as satisfactory as possible ; but, as representative of the French agricultural associations, he wondered whether the health rules recommended by the experts could be immediately applied in his country. In any case, it was going too far to state, as did the conclusions, that the houses of agricultural workers were wretched ; some of them had begun to be quite decent. He proposed the text, " When housing is defective, it accelerates the exodus ", etc.

In the case of poor houses, when workers find their own accommodation, what could be done when the person in question had not the means to pay a higher rent ? If the employer provided accommodation for the workers, how could he be compelled to lodge them better if he stated that he had not the means ? Such a policy should be based on sufficient credit. Only such recommendations should be made to the farmers as they were capable of carrying out.

The Chairman thought the second sentence in the second paragraph would meet M. Augé-Laribe's wishes.

M. Augé-Laribe (France) said he did not request any change, provided it wa- understood that the paragraph only gave a recommendation in respect of certain

transitional measures before legislation with penalties was arrived at. He was, however, concerned at the reference to the recommendation of the International Labour Conference, which was of the nature of a very definite obligation.

M. KOLAR (Czechoslovakia) thought there should be means of compulsion in respect of employers refusing, out of ill-will, to improve the housing conditions of agricultural workers. The French law provided that inspectors should visit the employers and that an order should be issued with a certain time-limit which might be prolonged in accordance with a definite scale. It would be insufficient to rely on mere recommendations.

Dr. JITTA (Netherlands) said that, in the Netherlands, the general inspection of dwellings was suitably regulated by law. The intention was gradually to improve the houses. If, during one of his periodical visits, the inspector placed a notice on a house to the effect that it was uninhabitable, the house had to be evacuated within six months (longer periods being provided for as an exception). If the tenants had not the means of obtaining better accommodation, the authorities might pay a part of the new rent. Dr. Jitta proposed that the end of the first paragraph should read : " . . . to cope *gradually* with this problem ".

Adopted and referred to the Drafting Committee.

M. AUGÉ-LARIBE (France) agreed with M. Gorni's proposal to introduce into the text the idea of supervision, on condition that penalties were only provided for after the lapse of a certain time.

Adopted and referred to the Drafting Committee.

M. PALLIS (Greece) understood that the Rapporteur had been thinking of conditions existing in some countries, such as England, where there were large land-owners lodging numerous agricultural day labourers. In other countries, such as the Balkans, there were many small peasant owners. Should their case be dealt with or neglected ? Would their houses, which were often very defective, be visited by health inspectors ? Would it not be advisable to give these farmers, at any rate, the advantage of the advice of the public health service, if it was impossible to impose special obligations by legislative measures ?

The CHAIRMAN explained that Section 4 dealt exclusively with the houses of agricultural workers.

M. AUGÉ-LARIBE (France) understood this expression in a very wide sense. If " agricultural labourers " had been mentioned, he would have had some remarks to make.

The CHAIRMAN pointed out that, while the preceding sections referred to farmers in general, Section 4 referred to agricultural wage-earners.

M. GORNI (International Labour Office) agreed in principle with M. Augé-Laribe. Section 4, however, only referred to paid workers. The inadequacy of the housing of the small owners raised a serious problem. It might be possible in the section relating to " methods of improving rural housing " to add a paragraph providing this category of agricultural workers with the advantage of an inspection service.

Mr. Ross HOOPER (Great Britain), Rapporteur, said the Committee of Experts had certainly had no idea of limiting the application of the recommendations to a special category of agricultural workers. As Rapporteur, he had thought that all the recommendations on rural housing referred to all agricultural workers, without distinction between day workers and small peasant owners. He added that, in England, there were all kinds

of rural houses — houses rented by the agricultural workers and houses more or less attached to a labour contract, while there were also many farmers owning a small house and an enclosure. These workers had to be visited by the health inspector and, if they could not follow his instructions, they received the necessary assistance to improve their housing conditions. In order that the recommendations in the report should have real value, they should be of a general character and be adaptable to special methods of application.

M. RUBATTEL (Switzerland) thought that supervision in this matter should be a general rule and should be applicable to peasants' houses. The Swiss peasants were, however, still very adverse to any idea of inspection ; the work of rural assistance was only beginning. The Conference should not run the risk of an accusation that it took no account of reality, and he thought that, for the time being, the resolution submitted should be dropped.

M. PALLIS (Greece) thought it was not so difficult as it would appear to improve the housing of the small proprietors. In the districts of Croatia, in the neighbourhood of Zagreb, which he had visited the previous year, he had been struck by the improvements made in those houses, without any opposition on the part of the peasants, through the energetic action of the health officials.

M. GORNI (International Labour Office), while opposing discrimination in principle, thought that some should be shown in the case under discussion. The houses of agricultural wage-earners represented a part of their wages, and the employer undertook in the contract to provide them with satisfactory dwelling conditions. But what could be done in the case of small owners when they had no money to follow the advice given by the inspectors ? This raised questions of agricultural credit, propaganda, types of dwelling, etc. On the other hand, in the case of paid workers, it should be possible to compel the employers to observe the clauses of the labour contracts.

M. AUGÉ-LARIBE (France) supported these remarks. In the case of small peasant proprietors, it would be sufficient to introduce the idea of the official assistance which they might need. In this sense, a certain supervision might be recommended in respect of this category of agricultural workers. The word " control ", however, which was too strong in French and still more so in English, should be replaced by an expression indicating rather the idea of advice, which the parties concerned would receive from the health inspectors, and there should be no threat of fines.

M. RUBATTEL (Switzerland) added that, in countries with the necessary financial means for making such recommendations for supervision really effective, they would be applied, but this was not at present the case in all countries.

The Drafting Committee was required to draw up a wording which would take account of the above remarks.

Paragraph 4 was adopted, subject to drafting.

5. *Means of improving Rural Housing.*

Dr. JITTA (Netherlands) noted that the wording of these conclusions appeared to leave a choice between the improvement of existing houses and the building of new

houses. In many cases, it was a waste of money to try to repair really useless houses. He proposed to say at the beginning of the first paragraph :

" It is possible that rural housing may also be improved by repairs. In this case and when properly directed, " etc.

The CHAIRMAN said it was often possible to improve existing houses, but such improvements must be durable. It was a question of judgment.

Paragraph 5 was adopted with Dr. Jitta's amendment.

D. LAND IMPROVEMENTS OR BONIFICATIONS.

The CHAIRMAN pointed out that the wording of these conclusions was defective and would be revised by the Drafting Committee.

M. BUTTINI (Italy) referred to his remarks at the previous meeting regarding rural aqueducts and credits provided for this purpose by the Italian Government ; it would be useful to take them into account in the comments. He added that in the report he had submitted on the previous day in the absence of M. Bonamico, it had not been possible to take into account various memoranda deposited after the report had been prepared. He wished to refer to the memoranda drawn up by the Chairman of the Third Committee M. Vignerot, M. Petrik, Vice-Chairman, M. Puntoni, M. Onghena, and M. Jordana, together with the reports by Dr. Bürger, Mr. Ross Hooper and M. Krul, dealing with certain questions relating to bonifications in general. The Italian Government's report, which formed part of a wider publication, referred to the organisation of the *bonifica integrale*, in Italy and drew attention to the relations between the hydrologic and geologic regularisation of mountains, and the same regularisation of plains, together with the effects of this regularisation on the health conditions of the population in the districts concerned. Although, in Italy, a system of centralisation in one Ministry had been adopted, nevertheless, in the provinces, the services had been kept separate, while their co-ordination with the central authorities was provided for ; these services included civil engineering, the podesta service and the service of agrarian technical experts.

The CHAIRMAN added that M. Bonamico had actively co-operated in preparing the conclusions of the discussion.

Prof. PUNTONI (International Institute of Agriculture) wondered whether, in the definition given in paragraph 1, a distinction should not be made between bonifications with a mainly sanitary aim for which there were State subsidies and bonifications with a mainly agricultural aim which led only indirectly to sanitary improvements ; in the latter case, the State did not intervene financially to the same extent, and dealt, in particular, with the co-ordination of bonification work.

M. ZAMBELLI (Italy) pointed out that, in Italy, the expression " bonification " always implied an idea of health. When the undertaking had any other aim than health, it was referred to as a land improvement.

The CHAIRMAN pointed out that the title of Section D (" Land Improvements or Bonifications ") made this distinction.

With regard to paragraph 3, Dr. JITTA (Netherlands) said that, at any rate in his country, it was thought very desirable that the cattle might remain for a certain time in the fresh air and not be shut up the entire year in stables.

M. RUBATTEL (Switzerland) supported this remark. If, in the conclusion under discussion, malarial districts were referred to, this was only a special case which it would be better to omit. He proposed to retain only the first line of paragraph 3.

Prof. PUNTONI (International Institute of Agriculture) explained that, in the campaign against malaria, it had been found advantageous to divert the anopheles towards the cattle by keeping the latter in the stables.

M. PETRIK (Yugoslavia) added that this procedure was not peculiar to Italy.

M. GAUTIER (France) suggested omitting the remark in question from the text of the conclusions and inserting it in the comments.

M. BUTTINI (Italy) pointed out that, as this practice was of general interest in malarial countries, it deserved more than a mere note.

The CHAIRMAN said the Drafting Committee would endeavour to find a formula which would obviate any confusion.

With regard to paragraph 2, M. KOLAR (Czechoslovakia) proposed to add to the measures for complete sanitation the recultivation of areas devastated by mining work, especially on marshy and gas-forming soil in the vicinity of coal-pits.

M. PETRIK (Yugoslavia) suggested saying, in paragraph 2, " the cultivation *and recultivation* ", and mentioning the case of mines in the comments.

Adopted.

On the question of paragraph 4, sub-paragraph 2, M. PUNTONI (International Institute of Agriculture) thought the help of the hygienist essential, not merely during the execution of the work, but also for the maintenance of areas which had been reconditioned. In Italy, malaria as a major scourge had disappeared, but it persisted in an endemic form and had to be combated by minor bonification schemes (anti-larval campaigns, etc.).

The CHAIRMAN drew attention to the statement in the concluding sentence that the help of the hygienist was particularly necessary during the execution of the work, but it was also desirable at other periods. The idea was merely to stress the necessity for such help while the workers were present, a point which had been emphasised by M. Bonamico.

M. KOLAR (Czechoslovakia) thought the help of the hygienist should only be called in for questions of health, and not when ordinary drainage works were being carried out.

The CHAIRMAN explained that the passage should be read in the light of the definition given in paragraph 1. The case only arose when living conditions were bad, more especially on account of malaria.

Prof. PUNTONI (International Institute of Agriculture) asked whether a paragraph 6 should not be added regarding State action in the case of bonification for hygienic purposes.

The CHAIRMAN pointed out that this idea was implied in the comments. Was it necessary to pose as advisers to Governments ? In the general considerations it was stated that, in all sanitary schemes affecting rural districts, the State as well as any other bodies interested, should take action.

Prof. PUNTONI (International Institute of Agriculture) would leave it to the Chairman's discretion.

Section D was adopted, subject to drafting alterations.

A. SEWAGE DISPOSAL.

Dr. BÜRGER (Germany), Rapporteur, suggested prefacing this section of the conclusions by an introduction similar to that added to other sections, emphasising the significance and the risks of sewage from the standpoint of health, and so ensuring the thorough comprehension of the scope of the recommendations made. In some country districts there was quite a mistaken idea that waste household water was harmless and could be removed in open drains.

Approved and referred to the Drafting Committee.

1. *Sewerage Systems.*

On the question of paragraph 2 (" Sewers can only be installed in rural communities having public water supplies piped to the individual houses "), Mr. Ross HOOPER (Great Britain) pointed out that, in actual practice — *e. g.*, in most mining districts in the United Kingdom — sewers existed although there was no public water supply piped to the house. He suggested the wording :

" Usually sewers are only installed in rural districts having public water supplies ", etc.

M. GAUTIER (France) enquired whether it was to be understood that sewers were not prohibited even when houses were not connected with the public water supply ; it was better to have sewers even with no water supply than not to have sewers at all.

The CHAIRMAN replied that that was of course implied.

M. DABAT (France) thought the wording of paragraph 2 was too categorical and suggested the phrase : " . . . having public water supplies ", without mentioning their being connected to individual houses.

Mr. Ross HOOPER (Great Britain) said the expression " public water supplies piped to the individual houses " was sufficiently broad and included the various types in actual use.

Dr. BÜRGER (Germany), Rapporteur, added that the paragraph did not necessarily imply a water supply connected with a central system ; the chief point was to have enough

water to dilute the sewage and convey it to the sewer. In the absence of a water-supply system, water could be obtained from a cistern or tank above the water-closet, etc.

The CHAIRMAN said the Drafting Committee would consider the question.

Section 1 was adopted, subject to drafting alterations.

2. *Disposal of Sewer Effluents.*

Regarding the comments on these conclusions, Dr. BÜRGER (Germany), Rapporteur, asked whether, to avoid misunderstanding, it would not be better to fix the distance separating the point at which sewage flowed into a stream from the point where water was taken for drinking purposes ; sewage would necessarily always flow in above some point from which drinking water was drawn.

The CHAIRMAN said it would be impossible to find such a definition, since it depended on the so-called self-purification capacity of the stream. They might say that sewage should not be discharged in the neighbourhood of a point from which water was taken for drinking purposes.

Agreed.

Section 2 was adopted, subject to drafting alterations.

3. *Purification of Sewage Effluents.*

Dr. BÜRGER (Germany), Rapporteur, thought that paragraph 1 of sub-heading B (" Biological Methods ") was worded too strongly. There were other methods than those of sprinkling filters adapted to rural conditions — *e. g.*, surface treatment, artificial irrigation, fish ponds. The particulars given in sub-heading B (Item 4) of " Other Methods " should be inserted in the present paragraph.

The CHAIRMAN pointed out that Section 3, B, dealt with artificial biological methods, whereas Section 4 described other methods — *i. e.*, *natural* systems. The heading of Section 3, B, might be altered to read " *Artificial* Biological Methods ".

Agreed.

Dr. BÜRGER (Germany), Rapporteur, suggested that the first sentence in B should be altered to read : " The system of sprinkling filters is one of the most suitable for rural districts ".

Agreed.

The CHAIRMAN said that a reference would be inserted in Section 4 to " fish-ponds or pools ".

Section 3 was adopted, subject to drafting alterations.

4. *Other Methods.*

Dr. Juan LAZARO-URRA (Spain) referring to sub-heading B (" Surface Irrigation ") suggested that the cultivation of vegetables for raw consumption should be prohibited in such areas. There were various difficulties, legal included, involved in the question. In Spain, for instance, it was a traditional practice to use sewage for the irrigation of such crops, and this constituted an acquired right which it was not easy to suppress. Tests made in Madrid had proved clearly that the incidence of typhoid fever — which it was hard to explain in view of the exceptionally good quality of the water supply — was directly and closely connected with the fluctuations in the consumption of raw vegetables grown on sewage-irrigated land.

The CHAIRMAN suggested the addition at the end of paragraph 1 of sub-heading B of the words : " prohibition of the growing of vegetables for raw consumption ".

Dr. BÜRGER (Germany), Rapporteur, stated that for many years past sewage had been widely used in Germany for surface irrigation. The fears originally entertained for the health of labourers employed on such land had proved groundless. He supported his Spanish colleague's proposal, but thought it should be inserted in the comments and not in the conclusions.

Regarding sub-heading A (" Leaching Cesspools and Subsoil Irrigation "), it might perhaps be well to refer at the beginning to the danger of leaching cesspools located in impermeable soil and handling large amounts of sewage ; in such case, subsoil irrigation and preliminary purification would soon have to be resorted to. He also stressed the danger of rocky and fissured soil.

M. BONIS-CHARANCLE (France), in view of the various objections raised, suggested substituting the word " mentioned " for " used " in the first line of Section 4.

Agreed.

The CHAIRMAN said that, in accordance with M. Bürger's observations, the Drafting Committee would have to stress the danger of infecting subsoil supplies of water, not only on the spot, but also over a large area, and thus of contaminating water drawn from some considerable distance. In reply to a suggestion by M. Bonis-Charancle to condemn leaching cesspools wholesale, he added that attention should be directed to their dangers, and advice given that they should only be used in exceptional cases and with great precautions.

The Drafting Committee would add a sub-heading C dealing with the process of purification by means of fish-ponds.

Section 4 was adopted, subject to drafting alterations.

FOURTH MEETING (JULY 4TH, 1931, 10 A.M.).

Chairman : M. VIGNEROT (France).

Examination of the Preparatory Committee's Report : *Chapter IV* (continued).

A. SEWAGE DISPOSAL (continued).

5. *Disposal of Sewage in Unsewered Districts.*

Dr. BÜRGER (Germany) suggested that the reference to pathogenic micro-organisms should be omitted, as it had been decided to introduce an opening sentence on this subject in accordance with his proposal.

Section 5 was adopted, subject to this observation.

6. *Disposal of Manure.*

Dr. JITTA (Netherlands) suggested redrafting the first sentence as follows : " . . . in such a way as only to expose the smallest possible surface to flies. "

M. RUBATTEL (Switzerland) suggested stating that the manure pits should be covered in order to prevent accidents.

The CHAIRMAN agreed.

M. KOLAR (Yugoslavia) drew attention to a method of treating manure by high temperature in such a way that it became odourless and resembled peat.

M. RUBATTEL (Switzerland) mentioned a method of treating liquid manure with strong chemicals, which was dangerous, as it might affect the quality of the milk and even the health of the cattle. This method was prohibited by regulations in Switzerland. He promised to obtain particulars and suggested that a remark should be made in the comments on this section.

Dr. BÜRGER (Germany) pointed out that the title of the chapter was "Sewage Disposal" (in French : "*Evacuation des eaux usées* "). Sections 6 and 7, dealing with manure and garbage respectively, did not, strictly speaking, come under this heading.

Section 6 was adopted, subject to the above observations.

7. *Disposal of Garbage.*

M. RUBATTEL (Switzerland) asked what was the meaning of the expression *villages urbanisés* (" built-up rural villages "). As the regulations contemplated appeared to apply to those villages, he asked what were the provisions for other villages.

The CHAIRMAN explained that built-up rural villages were villages large enough to have a system for the regular collection of house garbage and refuse similar to that used in towns. The following paragraphs of this section referred to other than built-up rural villages.

Dr. BÜRGER (Germany) referred to the remark in paragraph 3 regarding the collection of garbage by a contractor for pig feeding. He thought this practice was so rare in country districts that this remark might be omitted.

M. AUGÉ-LARIBE (France) thought that, though this method was rare, it did nevertheless exist in rural districts near towns, and it was therefore better to retain the remark.

M. RUBATTEL (Switzerland) agreed with M. Bürger. There were two methods of disposing of garbage for pig feeding : (1) by sale to a contractor and (2) by sale to some person in the village who kept pigs. The former method hardly existed in Switzerland. Precautions should be taken in regard to the latter method.

The CHAIRMAN stated that, as the practice existed in some countries, the remark should be retained, but it might be inserted in the comments instead of in the text.

Dr. JITTA (Netherlands) referred to the last paragraph relating to methods of treating garbage by tanks permitting of the development of heat. He thought the Beccari system should be mentioned. It not only developed heat, but produced good manure. It had been tried in the Netherlands with good results.

The CHAIRMAN said the paragraph referred to the Beccari system among others.

Prof. PUNTONI (International Institute of Agriculture) objected to the words in the last paragraph " are worthy of further experiment and study ". This text might give the impression that the system was not good, whereas it had been proved to give excellent results, and he suggested the wording " deserve most careful attention ".

He noted that, in paragraph 5, it was stated that garbage should be considered as infectious. This was not correct. Experiments in Italy had shown that workers treating garbage were not particularly subject to disease. The disadvantages were the breeding of flies and the evil smell. The garbage should therefore be removed to a distance from the house.

M. AUGÉ-LARIBE (France) agreed.

Dr. BÜRGER (Germany) gave particulars of a German system of disposing of garbage by ploughing it into the soil. On four estates of a total area of 13,500 *Morgen*, 20,000 kilogrammes of garbage were disposed of daily. The capacity of the soil was even greater. The garbage was strewn on the soil to a height of 4 centimetres and ploughed in to a depth of 30 centimetres. The same soil could be treated in this way once in four years. It resulted in a saving of one-half the required quantity of artificial fertilisers. Particulars had been published by Dr. Erdmann in 1930 in the journal issued by the Institute for the Hygiene of Water, Soil and Air.

The CHAIRMAN, in reply to M. Puntoni's remark regarding the fifth paragraph, pointed out that it was not stated that garbage was infectious but that, for greater security, it should be treated as if it were infectious.

Prof. PUNTONI (International Institute of Agriculture) did not insist on any change in this wording, but wished to add a remark regarding the evil smell.

The CHAIRMAN thought this might be added to the fourth paragraph.

Dr. BÜRGER (Germany) asked if the Commission did not think it necessary to insert a remark regarding the disposal of animal carcasses.

The CHAIRMAN thought a sentence might be added either to the conclusion or to the comments, to the effect that, in disposing of animal carcasses, care should be taken that they do not contaminate the soil or subsoil.

Mr. HOOPER (Great Britain) said this was a question for the veterinary surgeon. For some diseases of animals — for instance, anthrax — special precautions were necessary, and the Committee was not competent to make suggestions on that subject.

M. RUBATTEL (Switzerland) agreed with Mr. Hooper, and thought that a sentence should be inserted stating that recourse should be had to veterinary advice in disposing of animal carcasses.

Mr. HOOPER (Great Britain) said the usual practice in rural districts was to bury carcasses. With regard to anthrax, of which the microbe was particularly virulent, very special precautions were taken. In drafting a sentence, the Committee should be careful not to infringe on the prerogatives of the veterinary experts.

Dr. JITTA (Netherlands) suggested that attention should be drawn to this important question in the comments. It might be added that, as the matter concerned veterinary surgeons, the Committee did not go into details.

Dr. BÜRGER (Germany) said it was not his intention to propose more than that the Committee should draw attention to the subject.

The CHAIRMAN said that the Drafting Committee would consider this question in the light of existing veterinary regulations.

M. RUBATTEL (Switzerland) thought the campaign against rats should be mentioned.

The CHAIRMAN replied that this could be referred to in the paragraph relating to flies, as both rats and flies were carriers of germs.

Section 7 was adopted, subject to the above remarks.

4. *Other Methods* (continued).

Dr. BÜRGER (Germany) wished to revert to Section 4. He pointed out that treatment with chlorine was a very valuable method of disinfecting sewage effluents. The chlorine killed bacteria and prevented smell. The system was easy to instal and was much used

in rural factories, such as starch works, dairies, etc. He suggested inserting a further paragraph regarding this method.

M. AUGÉ-LARIBE (France) asked what effect this system had on the fish in the streams.

Dr. BÜRGER (Germany) pointed out that the quantity of chlorine used must be calculated in accordance with the chlorine affinity of the effluent. In order to overcome smell, only small quantities should be used. In Germany it was found that about 25 to 30 milligrams per litre were required. If the effluent had undergone preliminary cleansing, this quantity was further reduced. When used in small quantities, chlorine was not harmful to fish, or at any rate not so harmful as sulphuretted hydrogen, which would otherwise be generated and which was absolutely poisonous.

The CHAIRMAN pointed out that this question was of special importance for factories, but did not concern rural sanitation in general. He thought it could be mentioned shortly in order that the reference to methods of treating sewage effluents should be complete.

GENERAL CONSIDERATIONS.

M. BONIS-CHARANCLE (France) proposed to insert, after the words "the health authorities ", the words " whose task may be facilitated by private propaganda organisations ".

This proposal was adopted.

M. KOLAR (Yugoslavia) noted the recommendation in paragraph 2 that schoolchildren should receive health instruction. He thought this should include trade schools and also courses for adults. Provision should also be made for training the teachers in health subjects.

In paragraph 6, which referred to State subsidies, mention should also be made of communal grants.

In the last paragraph he suggested the words " Agricultural *and other* associations ".

The CHAIRMAN asked M. Kolar to submit his suggestions in writing.

M. AUGÉ-LARIBE (France) wished to make a change in paragraph 7 regarding the enforcement of legislation. He thought the rural population should be taught to regard the authorities as friends. This idea was not conveyed by the expression " competent supervision ".

The CHAIRMAN suggested the words " competent and enlightened supervision ". He pointed out that other passages in the resolutions implied a sympathetic attitude on the part of the authorities. The authorities' task was, nevertheless, to see that the legislation was enforced.

Dr. JITTA (Netherlands) thought that paragraph 9 regarding the co-ordination of the work of all agencies concerned in rural sanitation should be more strongly expressed. The sentence might begin : " It is urgently necessary that there should be co-ordination... "

Dr. BÜRGER (Germany) thought that the co-operation of veterinary surgeons with the help of health officials should be mentioned.

Dr. JITTA (Netherlands) agreed and said that M. Krul and he wished to point out the value of bringing together in one conference, not only doctors, but all other experts in health work.

M. LERCH (Austria) suggested including a reference to architects and contractors, who both did important work in connection with hygiene. In Austria, there were building advisory offices to which peasants could apply for advice. The architects and contractors had to see that building regulations relating to hygiene were complied with.

The CHAIRMAN thought all parties would be satisfied if an addition were made to paragraph 9 (regarding co-ordination), mentioning doctors, architects, veterinary surgeons, hygienists, sanitary engineers, agricultural experts, etc.

This proposal was adopted.

M. AUGÉ-LARIBE (France) suggested that paragraph 11, which referred to means of communication, should specially mention the telephone.

The CHAIRMAN pointed out that this had already been specially referred to in another part of the report. He thought it hardly necessary to refer to it again.

M. AUGÉ-LARIBE (France) suggested adding in the last paragraph the words " and achievement " after the word " propaganda ".

M. RUBATTEL (Switzerland) suggested that, in the last paragraph, after the words " agricultural associations ", the words " and associations of public utility " should be added. The latter might have considerable influence on rural life.

The CHAIRMAN pointed out that this idea was already included in M. Kolar's draft.

REPORT OF THE THIRD COMMITTEE (SANITATION).

GENERAL CONSIDERATIONS.

The Conference considers that the improvement of rural sanitation, which tends to raise the standard of life in rural districts, is dependent, in the first instance, on economic conditions and education in hygiene.

School-children in rural schools, students in agricultural and normal schools should receive health instruction adapted to rural needs and conditions.

The health authorities, whose work may be facilitated by the private propaganda organisations, should strive to spread the knowledge of hygiene among the people by every available means.

The Conference recommends particularly the practice of providing examples of good hygiene and sanitation, which should be located where their advantages may be seen and appreciated by the people — *e. g.*, model houses.

Courses in hygiene for builders, contractors and leaders among the rural population are particularly effective.

Education stimulates the desire for sanitary improvement; suitable legislation provides the means by making cheap credit accessible by grants, bonuses and loans.

Legislation is not effective without proper enforcement and competent and enlightened supervision.

While the local authorities may be responsible for sanitation, there should be central direction, supervision and stimulation.

It is essential that there should be co-ordination of the work of all agencies concerned in rural sanitation. This co-ordination implies the co-operation of the technical personnel concerned (agricultural experts, architects, hygienists, engineers, medical men, doctors of veterinary medicine, etc.).

The work of rural sanitation should be based on a close study and appraisal of all the factors at play.

Particular emphasis should be laid on the necessity for rapid and constant means of transport and communication (telephone) in rural districts for the purpose of rural housing and health services.

Associations and institutions for the improvement of rural life in many fields and, in particular, associations organised on a technical agricultural basis are potent means of propaganda and achievement, and should be led to take an interest in water supply, good housing and other aspects of rural sanitation. The health authorities should co-operate with such associations to this end.

A. Sewage and Wastes Disposal.

1. *Dangers of Sewage and other Wastes.*

Sewage and other wastes are not only objectionable but dangerous, because they frequently contain organisms causing disease in man (chiefly intestinal disease). This is also true of liquid household wastes. The danger is in inverse proportion to the age of the material.

These wastes should either be removed rapidly from human habitations by drains so as to prevent danger of contamination or they should be retained for a sufficiently long period to ensure the destruction of pathogenic organisms.

2. *Sewerage Systems.*

The Conference is of opinion that a water-carriage sewerage system is, in principle, the best method of removing sewage.

Sewers are usually installed in rural communities only where public water supplies exist.

The practicability of installing sewerage systems depends on the density of the population, the character of the soil and the existing economic conditions.

Open drains, intended to remove rain water and street washings, may, under special conditions and when no better system is possible, be used for slop water and other house wastes. Excreta must be excluded from such drains.

Such conditions are found in industrial rural areas where wastes like phenol exert a disinfecting action on the contents of the drains. Open drains may also be used for this

purpose in rural districts other than industrial when nothing better offers, providing they are properly fenced off, regularly supervised, and the configuration of the surface of the soil permits of a rapid flow (hilly districts).

3. *The Disposal of Sewer Effluents.*

Sewer effluents may be disposed of by permitting them to flow into a watercourse, lake or tidal basin.

Such a method of disposal is satisfactory, providing :

(a) That the quality of the water at a given distance below the sewage outfall is equal to the quality of the water above the point where sewage enters ;

(b) That the dilution is sufficiently great ; the rule that the volume of the stream should never be less than 100 times the volume of the sewage previously cleared of solid matter gives good results in practice.

4. *Purification of Sewage Effluents.*

When it becomes necessary to purify sewage effluents as in .

(a) Closely populated rural districts ;

(b) Districts without an abundance of surface water ;

(c) Districts where it is desirable to limit stream pollution to a certain maximum,

a number of methods may be adopted in rural districts. These should be simple, adapted to local conditions and require a minimum of care by unskilled staff. These methods are mechanical and biological.

A. *Mechanical Methods.* — The simplest mechanical method is the use of fixed racks intended to retain the solids.

Settling-tanks also effect a certain amount of purification depending upon the condition of the sewage and the velocity of flow in the tank.

B. *Artificial Biological Methods.* — These are always preceded by mechanical methods The principal biological methods are :

(1) Sprinkling filters. This is one of the methods best adapted to rural conditions, being inexpensive to instal and maintain, requiring little attention and no trained personnel and being capable of easy repair.

(2) The remaining methods — such as activated sludge (as at present constituted), contact beds or sand filters — are not adapted to rural conditions.

5. *Other Methods.*

The following methods may also be mentioned :

A. *Subsoil Irrigation and Leaching Cesspools.* — These methods can only be used where there is no possibility of contaminating the ground water which may be used as a source of water supply.

Subsoil irrigation should be limited to the treatment of small amounts of sewage (effluents from single houses, institutions, or small settlements) and should not be used where there are fissures in the soil.

Subsoil irrigation should be preceded by some form of mechanical or biological purification.

B. *Surface Irrigation.* — This method is one of the best for rural conditions if the soil is suitable, the area sufficiently large, the treatment properly supervised, and the cultivation of vegetables and fruits, which grow close to the ground and which are te be eatin raw prohibited.

The main consideration should be proper disposal of sewage rather than the raising of good crops.

C. *Use of Fish-Ponds for Sewage Purification.* — This method might be of some value in rural areas.

6. *Disposal of Sewage in Unsewered Districts.*

The main objects of proper sewage disposal in unsewered districts are :

(1) The protection of the surface of the soil ;
(2) The protection of the subsoil water ;
(3) The protection of the sewage from access of flies.

These objects can best be attained by the use of water-tight receptacles in a fly-proof superstructure.

As fresh excreta may contain pathogenic micro-organisms and intestinal parasites, provision should be made for storage of sufficient duration to destroy such organisms.

Methods of providing for such storage are water-tight tanks with two compartments for alternate use, or double-compartment tanks of which only the second can be emptied.

Another method is the use of pails. As these contain fresh material, some form of disinfectant should be used, or the contents should at least be covered with dry earth, peat or other deodorant.

The pail system operates more satisfactorily when there is a public system of collection under proper supervision. As such a system is difficult to maintain in rural districts, the disposal of the material must, unfortunately, be left to the householder, whose education in hygiene is not usually sufficient.

Single-compartment tanks may be used in villages where a proper system of collection exists. The contents should be transported in water-tight containers to a suitable distance and properly treated — as, for instance, by placing alternate layers of sewage and dried peat in a large open tank.

In rural districts where it is not necessary to prevent the contamination of ground water, ordinary unlined pits may be used.

The Java type of privy, consisting of a deep hole of small diameter, into which basket work is inserted, is apparently suitable. It requires further study.

Whatever the method of sewage disposal adopted for individual houses, the privy should be located as far as possible from the well or other source of water supply.

7. *Disposal of Manure.*

Solid and liquid stable manure should be stored in water-tight pits, situated as far as possible from the house and arranged in such a way as to expose the smallest possible

surface to flies. The pits should also be so arranged as to prevent the contents being subject to the washing action of rain-water.

Manure pits should be provided with a special water-tight compartment for the liquid manure.

The Conference recommends that the prevention of fly-breeding by measures tending to promote the development of heat in manure piles should be made the subject of further experiment and study.

8. *Disposal of Garbage.*

In built-up rural villages, the regular collection and systematic disposal of house garbage and refuse is the most effective method.

This material may be disposed of by dumping frequently in thin layers and covering with earth, ashes, or other dry refuse. Such a method of collection and disposal requires careful and competent supervision.

Garbage is also a prolific source of flies, and measures should be taken to prevent fly-breeding.

A safe rule to adopt is to treat garbage as infectious matter and to dispose of it in such a way as to prevent the pollution of the surface of the soil, the subsoil by percolation (ground water) and the houses in the neighbourhood by flies, which breed in the garbage, and to avoid bad odours.

The Conference draws attention to the methods of treating garbage by tanks permitting of the development of heat.

9. *Animal Carcasses.*

The Conference also draws attention to the necessity for treating carcasses of animals in accordance with veterinary regulations.

B. Water Supply.

An abundant supply of pure water in rural districts is not only an important factor in the protection of the health of human beings and of cattle, but is also of great value in the promotion of agriculture.

The more immediately accessible the supply, the more freely will it be used by consumers. The best solution is to connect the house or farm to the water supply or, more generally, to bring the supply within easy reach.

1. *Public Water Systems.*

(a) *For a Number of Settlements.* — The central water-supply system distributed to a number of settlements is, when practicable, to be preferred to a smaller system. This system is to be recommended particularly in the more populated areas, and for districts in which suitable water sources are few, as it permits of the most advantageous utilisation of the potable water.

The co-operation of a number of villages to secure a joint water-supply system permits of a more adequate plant, gives the opportunity to employ skilled personnel and also permits the use of methods of purification when necessary. In the case of these central water supplies, any modern method of purification may be adopted, as it will be carefully applied and supervised.

(b) *For Individual Settlements.* — The source of the village water supply should be selected after appropriate investigations in order to secure a water free from the possibility of any dangerous contamination.

The necessity for any system of purification is to be avoided, as such systems require technical supervision, which is not usually available in rural districts.

Village water supplies should be constructed with due regard for simplicity of design, economy and ease of operation and maintenance.

2. *Purity of the Water.*

When treatment is necessary, it must be safeguarded in every possible way. The lines of defence to ensure the purity of the water should be, in order :

(1) Protection of the source ;
(2) Mechanical purification, (sedimentation, filtration, etc.) ;
(3) Chemical purification (disinfection) ;
(4) Inspection and supervision.

Protection of the source and supervision of the supply are necessary in any case.

When the water is drawn from rocky formations in which fissures exist (limestone, karst) it should be adequately purified. Disinfection by chlorine is at present a practical solution.

When contamination occurs only at rate intervals and for short periods, it is advisable to apply chlorine throughout the year ; otherwise, when the occasion arises, the apparatus may be out of order. When no danger threatens, very small amounts of chlorine may be used, and these may be increased when necessary.

When there is any possibility that a water supply may be responsible for an outbreak of intestinal disease, chlorine should be applied immediately as an emergency measure and continued until the investigation is completed.

Portable chlorinating plants should be available at central institutions for use in case of emergency (such as the threatened pollution of a normally pure water supply).

3. *Supervision of Water Supplies.*

Constant supervision of all public water supplies is necessary. This supervision should relate to the source of the supply, the plant and the distributing system, as well as to the effluent, and should be closest during the seasons when the supply is most likely to be contaminated (dry season, floods, etc.).

The personnel engaged in this supervision should be trained in the hygiene of water.

4. *Individual Water Supplies.*

These may take the form of wells, springs and cisterns. They should be constructed by qualified persons who have received proper instruction in the elements of hygiene of

water ; otherwise, they are apt to be dangerously located, badly constructed and improperly protected.

The competent authorities should adopt regulations providing for the location, construction and protection of individual supplies, and these regulations should be adequately enforced.

For the guidance of local authorities, a model code should be prepared by the central health services.

5. *The Central Organisation.*

Progress in matters of water supply must be based on scientific research centralised in a suitable organisation, which thus constitutes a hydrological and geological intelligence service for the purpose of locating suitable sources of water supply and for the collection of all other relevant data.

Such an organisation should, as far as possible, have jurisdiction over all matters affecting water supply in the State or administrative unit.

It would be difficult to over-estimate the advantages of a central organisation of this kind. In view of the information at its disposal for the entire State or province, and the expert knowledge of the specialists attached to it, such an organisation would be in a position to ensure that the existing water sources are utilised to the best advantage and that partial solutions of water-supply problems are avoided.

Such an organisation would place at the disposal of individuals, societies and communities technical information and expert advice on matters of water supply and would act as a centre for the education of the people in the hygiene of water.

6. *Financial Assistance.*

Many countries have encouraged the installation of rural water supplies by affording financial assistance, and have secured excellent results by this means. In the absence of such assistance, many municipalities could not have secured a public water supply. Account should be taken of this experience.

C. Housing in Rural Districts.

1. There is urgent need for improvement in the housing conditions of rural districts. Progress in this respect is hindered by the lack of cheap credit and the fact that education in hygiene in rural districts has not reached a sufficiently high level.

The housing shortage in cities has led in most countries to concentration on the housing problem in industrial areas, and the needs of rural districts have not always received the attention they deserved.

Good housing is a fundamental requirement for rural hygiene. It is influenced by social and economic conditions, and, in its turn, exerts a strong influence on these conditions, resulting in better health and a general elevation of the standard of life.

2. The principal defects of rural housing from the point of view of hygiene are :

(a) Overcrowding. Good houses are too few. There are too few bedrooms in the existing houses. The house may be too small or, in planning it, the existing space may have been insufficiently utilised. Apart from considerations as to the necessary cubic space, attention should be drawn to the height required for living purposes.

(b) There is inadequate provision of toilet and sanitary facilities.

(c) The living quarters are insufficiently protected from the stables.

(d) Manure and other sources of pollution and odours are in too close proximity.

(e) The house is so located and constructed as to be damp.

(f) There is a lack of proper ventilation, lighting and heating.

(g) There is insufficient protection from mosquitoes, flies and dust.

(h) There is insufficient exposure to the sun.

3. Methods of improving rural housing :

(a) Education ;

(b) Cheap credit and improvement of the economic condition of the farmer ;

(c) Co-operation ;

(d) Legislation, by-laws and regulations and their proper enforcement.

The practice of making public buildings models from the point of view of hygiene and sanitation is highly recommended.

The construction of model houses at numerous strategic points encourages imitation.

Good housing will appeal more readily to the rural population if the plans are prepared after a study of local customs and social and economic conditions, so as to preserve features characteristic of the district.

Loans at low rates of interest, grants, as well as freedom from taxation, may be provided by legislation, and are potent means of improving rural housing. The award of bonuses for proper construction yields a large return for the investment of small sums.

There should be building codes prescribing minimum requirements in respect of sites, exposure, lighting, ventilation, etc. Technical supervision and enforcement are required to make these effective, as well as proper preparation by measures of education.

Such enforcement should not be left altogether to the local authorities.

The health authority should have jurisdiction over all sanitary aspects of housing.

The preparation and distribution of standard plans satisfying sanitary requirements and local needs has given good results and should be encouraged. Such houses should be of simple design and economic construction.

4. The improvement of housing for agricultural workers presents difficulties which cannot be solved by education and persuasion alone. The agricultural worker is in a particularly weak position in this respect, and suitable legislation, with proper enforcement, as well as public financial assistance, are needed to cope with this problem.

Poor housing for this class accelerates the exodus of the best workers to the cities, where in many cases more attention has been given to housing for industrial workers, and this, in turn, lowers the standard of rural life and prevents hygienic improvement.

The organisation in the different countries of sanitary inspection services is desirable. Such services should have the authority necessary to secure satisfactory housing conditions for agricultural workers and to enforce the relevant regulations.

The Conference draws attention to the recommendation of the International Labour Office (1921) on this subject.

5. Rural housing may also be improved by suitable reconditioning of existing houses. When properly directed and supervised, such reconditioning may yield excellent results, sometimes at comparatively small cost.

The construction of model villages and agricultural colonies is of particular interest and importance in respect of rural housing. The tendency to locate industrial plants in rural districts should be encouraged, such new construction offering opportunities for the building up of model villages and the application of all sanitary safeguards.

In the planning of these villages and colonies, the health authorities should have jurisdiction over all matters of hygiene and sanitation.

The Conference recommends the further study of this problem.

D. Land Improvements or Bonifications.

1. Bonifications may be defined as the complete sanitary reconditioning of the land in areas where the general living conditions of the people are bad, more especially on account of malaria and other endemic diseases which endanger the vitality of the people.

2. This complete sanitary reconstruction is not limited to drainage, but includes all measures required to bring the land under cultivation, and the provision of hygienic living conditions for the population by means of a network of good roads, suitable rural housing, a good water supply, sewage and waste disposal.

3. Under certain conditions, it also includes the irrigation necessary for farming purposes, which enables the cattle to be housed throughout the year, this practice being indicated in view of the campaign against malaria.

4. Bonifications thus bring about a marked improvement in the standard of living, both economic and hygienic, and should accordingly be regarded as one of the most striking examples of rural hygiene.

The application of the system of bonifications requires the help of the hygienist. This is particularly necessary during the execution of the work.

5. The Conference draws attention to the importance of proper drainage by water-courses, and to the serious consequences resulting from the neglect to maintain these properly, not only in respect of agriculture, but also in regard to hygiene.

E. Subjects requiring Investigations and Research.

The Committee is of opinion that, in addition to the investigations mentioned in the Preparatory Committee's printed report, the methods of testing and analysing water and sewage in the different countries should be examined and compared.

The Committee draws the attention of the Fourth Committee and the directors of schools of hygiene to this proposal.

F. General Resolution.

The Committee draws the attention of the Fourth Committee to the desirability of adopting a resolution to the effect that the Conference has brought about a close collaboration between administrators of public assistance, agricultural experts, engineers, medical officers and practitioners, representatives of health insurance institutions, agricultural associations and private health agencies.

CHAPTER VI. — MINUTES AND REPORT OF THE FOURTH COMMITTEE AND OF THE MEETING OF DIRECTORS OF SCHOOLS OF HYGIENE.

FIRST MEETING [1] (JULY 6TH, 1931, 11 A.M.).

Chairman : Dr. CHODZKO (Poland).

Proposals referred to the Fourth Committee by the First, Second and Third Committees.

The MEDICAL DIRECTOR stated that the reports of the three Committees embodied a series of proposals on subsequent study to be undertaken under League auspices. The majority of these proposals was to be found in the Preparatory Committee's report. The list was as follows :

1. The programme and the organisation of schools for public health nurses should be studied by the Advisory Committee of the Health Organisation of the League.

2. The same proposal with regard to the programme and methods of training of sanitary engineers.

3. More detailed information to be obtained as to the cost of rural public health services ; study of this subject to be undertaken on uniform lines in rural districts in order to ascertain the most economic and effective form of organisation of rural health services — in particular, the cost of the method described by the Budapest Conference as compared with other methods.

4. Equipment of health centres.

5. Java latrines.

6. Treatment of refuse and manure by heat processes.

7. Industrial establishments in rural districts; construction of model villages, etc.

[1] For the composition of this Committee, see the Minutes of the Seventh plenary Meeting.

These proposals were followed by two questions raised in the Third Committee :

8. The desirability, over and above the research referred to in the Preparatory Committee's report, of a comparative study of the methods employed for the analysis and examination of water and sewage in the various countries.

9. Consideration of the desirability of a general resolution stating that the Conference had succeeded in establishing close co-operation between public assistance administrations, scientific agriculturists, engineers, health specialists, practitioners, representatives of health insurance institutions, professional agricultural associations and private agencies.

A final proposal by M. UNGER advocated consideration of a special international sound-signal for motor-cars transporting sick persons.

The CHAIRMAN opened the discussion on the various questions enumerated by the Medical Director.

Question 1.

On the proposal of the MEDICAL DIRECTOR, *the Committee decided to refer this question to the Health Committee for consideration.*

Question 2.

A similar decision was adopted.

Question 3.

The MEDICAL DIRECTOR explained that the services referred to were rural health services as described in the Second Committee's report. A preliminary examination of this point had already taken place in the meeting of the directors of schools of hygiene [1], who would submit a definite proposal on this subject to the Fourth Committee at its next session.

The CHAIRMAN stated that the Committee would meet later to consider the proposal in question.

Questions 4, 5, 6 *and* 8.

The MEDICAL DIRECTOR stated that the directors of schools of hygiene [1] had also studied three of these questions named and would submit a proposal to the Fourth Committee regarding them. They might consider Question 8 (the comparative Study of Different Methods of Analysis and Examination of Water Supplies and Sewage) in connection with the other three. That question would be considered by the directors of the schools of hygiene and they would submit a definite proposal.

Approved.

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[1] The Minutes of the meeting of directors of schools of hygiene are contained in document Conf. Hyg. rur./Dir. éc./P. V. 1 and 2.

Those present were :

Prof. Léon BERNARD *(Chairman)*, M. PITTALUGA (Spain), Dr. BÜRGER and M. DERLICKI (Germany), M. Alexander PALLIS and Dr. Norman WHITE (Greece), Dr. Bela JOHAN (Hungary), M. W. F. J. M. KRUL (Netherlands), M. W. CHODZKO (Poland), M. H. PELC (Czechoslovakia), M. MADSEN (Denmark).

Question 7.

The MEDICAL DIRECTOR explained that this question related to rural housing as a whole. He proposed that it should be referred for study to the International Labour Office and the International Institute of Agriculture. The Health Organisation would, of course, be very pleased to co-operate with those two bodies as regarded the health aspects of the question.

M. TIXIER said that the International Labour Office would undertake the study in co-operation with the Health Section so far as health aspects were concerned, and with the International Institute of Agriculture as regarded its other aspects.

The MEDICAL DIRECTOR was certain that the International Institute of Agriculture would gladly fall in with this suggestion, since it had submitted a pamphlet on rural housing to the Conference.

Question 9.

The MEDICAL DIRECTOR proposed that mention should also be made of the co-operation which had been established with architects. The Bureau would prepare a final draft resolution for the next meeting.

The CHAIRMAN, speaking both as a member of the Conference and as delegate of Poland, requested that the resolution finally adopted should express a wish that the co-operation so happily inaugurated in the present year under the auspices of the League of Nations should develop in the near future.

Approved.

Proposal by M. Unger.

M. UNGER explained that it was very desirable that the Conference should promote the adoption of an international signal ensuring free passage for motor-cars transporting sick persons.

The MEDICAL DIRECTOR proposed that the Conference should refer this question for study to the Communications and Transit Organisation of the League.

Approved.

SECOND MEETING (JULY 6TH, 1931, 5.30 P.M.).

Chairman : Dr. CHODZKO (Poland).

Report by Professor Léon Bernard (document Conf. Hyg. rur. 38).

Professor Léon BERNARD read the report which he had drawn up as a result of the meeting of directors of European schools of hygiene and relating to five questions to be studied by the schools and other institutes of hygiene in Europe — namely :

(1) Milk in rural areas ;
(2) Typhoid infections ;
(3) Manure and flies ;
(4) Rural sanitation equipment ;
(5) Comparison of the various methods of analysing and examining drinking water and sewage.

The CHAIRMAN explained that the list of schools and other institutes of hygiene wishing to take part in the studies to be undertaken was not exhausted by those enumerated by Professor Léon Bernard.

He asked whether the members of the Fourth Committee had any additional remarks to make on this subject.

Professor BÜRGER stated, on behalf of the German delegation, that the Prussian Institute for the Hygiene of Water, Soil and Air (Berlin) and other institutes of hygiene in Germany, in co-operation with certain chambers of agriculture and other organisations concerned, were prepared to take part in the study of the problems recommended by the meeting of the directors of schools of hygiene.

Professor Léon Bernard's report was adopted.

REPORT OF THE FOURTH (RESOLUTIONS) COMMITTEE.

1. The Fourth (Resolutions) Committee, after examining the proposals put forward by the First, Second and Third Committees, and by delegates at the Conference, recommends the adoption of the following resolutions :

" *(a)* The Conference considers that the programme of public health nursing schools should be studied by the competent committee of the League's Health Organisation and suggests that the Council of the League of Nations should refer this study to the Health Committee. "

" *(b)* The Conference considers that the programme and methods of training of sanitary engineers in the different countries should also be studied by the Health Organisation and suggests that the Council of the League of Nations should refer this study to the Health Committee."

" *(c)* The Conference considers it would be advisable to secure further information on the cost of rural health and medical services and recommends that such studies on a uniform plan should be carried out in rural districts by the various schools of hygiene under the auspices of the Health Organisation of the League of Nations. "

" *(d)* The Conference recommends that the study of the following subjects of particular interest to rural sanitation should be undertaken under the auspices of the Health Organisation of the League of Nations by the various schools of hygiene and institutes for the hygiene of water :

" 1. The Java type privy ;

" 2. Heat treatment of garbage and manure to prevent fly-breeding ;

" 3. Methods of testing and analysing water and sewage in use in the different countries. "

" *(e)* The Conference recommends that the study of housing conditions in rural districts proposed by the Third Committee should be referred to the International Labour Office and the International Institute of Agriculture, in collaboration with the Health Organisation of the League of Nations, when questions of hygiene are involved. "

" *(f)* The Conference draws attention to the importance of the rapid transport of the sick in rural districts, and considers there would be advantage in the international adoption and use of a special sound signal for motor ambulances. The Conference suggests that the Council of the League of Nations might refer the study of this subject to the League's Organisation for Transit and Communications. "

" *(g)* The Conference desires to emphasise the importance for rural hygiene of close collaboration between administrators of public health and assistance, agricultural experts, engineers, nurses, architects, medical officers and practitioners, representatives of health insurance institutions, agricultural associations and private health agencies. "

The Rural Hygiene Conference has furnished a striking illustration of the fruitful results of such collaboration, and this collaboration, begun under the auspices of the League of Nations, should be continued and extended.

ANNEXES.

DOCUMENTS AND REPORTS SUBMITTED TO THE EUROPEAN CONFERENCE ON RURAL HYGIENE.

1. Technical Recommendations by the Preparatory Committee.

2. " Sickness Insurance as a Factor in Rural Hygiene " : Report submitted to the Conference by the International Labour Office.

3. Extracts from the Report on Water Supplies in Rural Districts submitted to the Conference by M. Krul, Director of the National Bureau for Water Supply at The Hague.

4. List of Documents distributed to the Conference.

ANNEX 1.

TECHNICAL RECOMMENDATIONS BY THE PREPARATORY COMMITTEE. (EXTRACTS FROM THE REPORT OF THE PREPARATORY COMMITTEE, DOCUMENT C.H.1045).

CHAPTER II. — REPORT OF THE EXPERTS ON THE FIRST ITEM ON THE AGENDA. [1]

" *Guiding Principles and Suitable Methods for ensuring Effective Medical Assistance in Rural Communities.* "

" In the largest sense, effective medical assistance may be considered as indicating a medical service organised in such a way as to place at the disposal of the population all the facilities of modern medicine in order to promote health and to detect and treat illnesses from their incipiency. "

2. In order to furnish effective medical assistance to the rural population, the experts are unanimous in the belief that 2,000 is the maximum number of persons who can be given proper medical attention by a duly qualified medical practitioner, on the understanding that in proportion to the growth of the health services and the needs of the people, this number may be reduced to one thousand.

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1 The following experts prepared this report at Geneva, May 9th to 11th, 1931 :

Professor KONRICH *(Chairman)*, from the Reichsgesundheitsamt, Berlin ;

Dr. Alfredo CANAL-COMAS, Physician at Granollers, Catalonia ; Representing the Medical Officers of Rural Districts in the National Medical Association of Spain ;

M. BOIS-CORJON, Director of the Central Office of Agricultural Mutual Benefit Societies, Paris ;

Dr. E. H. F. DECOURT, Representative of the French Medical Syndicates, Member of the Council of the Confederation ; Secretary-General of the International Professional Association of Physicians, and Principal Editor of the official bulletin ;

Dr. Dino RIO, Chief of the Section on Medical Assistance of the General Health Administration, Ministry of the Interior, Rome ;

Dr. Frederic MESTRE PEÓN, Professor of Sanitary Administration at the School of Hygiene, Madrid.

Dr. Walther MIEMIETZ, Vice-President of the Medical Association for the Province of Brandenburg, Wriezen ;

M. M. SARRAZ-BOURNET, Associate Inspector-General of the Administrative Services, Ministry of the Interior, Member of the Superior Council of Public Welfare of France, Paris ;

M. Karl UNGER, Director of the National Union of Rural Health Insurance Institutions of Germany, at Perleberg (Potsdam).

3. Such medical assistance also requires a technically qualified auxiliary personnel comprising one or more nurses, or, provisionally, in the absence of qualified nurses, other persons possessing the minimum necessary technical training.

4. It is recommended that, in the smallest rural settlement, the patient should be able to find a person capable of rendering first-aid and of carrying out the doctor's orders.

5. The rural population and rural doctors should be in a position to utilise the services of centres of diagnosis and, if necessary, of specialised treatment; such centres should be suitably equipped and provided with a qualified staff ; anti-tuberculosis and anti-venereal dispensaries, etc.

These services should maintain liaison with the patient's physician, who should be informed of the results of the examinations, or, if necessary, kept in touch with the treatment and its results.

6. Rural medical assistance also implies facilities for hospitalisation in appropriate, suitably equipped institutions.

It is recommended that there should be such a hospital for a population of from twenty to thirty thousand people, a rational organisation requiring about two beds per thousand of the population.

However, each such institution should have not less than some fifty beds.

Permanent means of communication (telegraph, telephone, etc.) and constantly available means of transport should be at the disposal of patients and doctors to permit of rapid hospitalisation in urgent cases.

7. Rural medical assistance should utilise the services of laboratories.

Simple examinations and analyses may be carried out in the hospital laboratories.

More complicated examinations and analyses (bacteriological, pathological, serological, etc.) should be carried out in large, specially-equipped laboratories.

8. Rural medical assistance should also be able to utilise medical specialists.

The specialists should keep in touch with the patient's doctor, informing him of the results of the examination and of the treatment and its results.

9. Means of Realisation.

A. *Principles of Collaboration.* — The realisation of effective medical assistance in rural districts demands the collaboration of the public authorities — health and welfare (assistance) — of the medical profession, of health insurance institutions, of private agencies, etc.

B. *The Public Authorities.* — The public authorities should ensure that the entire population benefits from an effective medical assistance. By means of a rational organisation of the health services, adequately staffed with specialists, they should attempt to develop the preventive tendencies of rural medical assistance.

In the interest of effective medical assistance, it would also be desirable for the public authorities to seek to organise a rational and co-ordinated health programme on a territorial basis, taking account of local conditions.

The public authorities should stimulate, assist and co-ordinate the efforts of agencies and groups which attempt to realise effective medical assistance. They should seek to fill the gaps and avoid the duplications which may occur in the organisation of this assistance.

C. *Health Insurance.* — The experts consider that when health insurance applies to the entire body of agricultural labourers, it permits the realisation of effective medical assistance in rural districts under the best conditions.

D. *Public Assistance.* — Nevertheless, where health insurance has not yet been established, rationally-organised free medical assistance may intervene usefully in completing a system which partially satisfies the needs of rural populations.

CHAPTER III. — REPORT OF THE EXPERTS ON THE SECOND ITEM ON THE AGENDA.[1]

" *The Most Effective Methods of Organising Health Services in Rural Districts.*"

1. General Considerations. — There are two principal forms of rural health organisation : the form in which the State administers the local services, and the form in which the State has only supervisory functions, the local authorities being responsible for the local health administration.

Both may give good results, and the form best suited to the rural districts of a given country depends on the manner in which the general administration of that country is organised.

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[1] These reports were prepared by the Commission on Rural Health Centres which met at Budapest in October 1930 and at Geneva on April 28th to 30th, 1931. The following experts participated :

At Budapest and Geneva :

Dr. W. CHODZKO, Director of the School of Hygiene at Warsaw *(Chairman)* ;
Dr. Bela JOHAN, Director of the State Institute of Hygiene, Budapest ;
Dr. M. KACPRZAK, Chief of the Statistical Department, State Institute of Hygiene, Warsaw ;
Dr. A. METZ, Medical Officer of Health of the County and District of Holbaek, Denmark ;
Prof. J. PARISOT, Professor of Hygiene and Preventive Medicine, Nancy ;
Dr. Hynek PELC, Chief of the Department of Social Hygiene, State Institute of Hygiene, Prague ;
M. M. PETRIK, Chief of the Division of Sanitary Engineering Institute of Hygiene, Zagreb ;
Dr. G. SEIFFERT, Counsellor to the Bavarian Ministry of the Interior, Munich ;
Dr. A. STAMPAR, Inspector-General of Health, Ministry of Health, Belgrade ;
Dr. J. H. TUNTLER, Inspector, Child Welfare, Tuberculosis and Venereal Diseases Service. Netherlands Ministry of Labour, Commerce and Industry, Groningen.

At Geneva alone :

M. Antoine LABRANCA, Chief of Division in the General Public Health Direction, Ministry of the Interior, Rome ;
Dr. J. THURNHER, Representing the Austrian Union of Sickness Insurance Funds, Vienna ;
M. VIMEUX, Director-General of the National Union of Agricultural Mutual Benefit Societies, Paris.

At Budapest alone :

Dr. F. Ruiz MOROTE, Public Health Inspector at Caceres, Spain ;
Dr. Mil. RANKOV, Director of the Tropical Diseases Institute at Skople, Yugoslavia ;
Dr. Kornél SCHOLTZ, Secretary of State, Ministry of Labour and Social Welfare, Budapest ;
Miss M. STELLER, Chief of the Public Health Nursing Service, State Institute of Hygiene, Budapest.

When it is necessary to organise the rural health service there is need for a State organisation which will assume control over local health work. As the country develops, its local administrative organisation becoming sufficiently strong to carry out public health work, and the education of its people in hygiene being sufficient to cause them to support the local health service, there may be a gradual decentralisation in health matters until the responsibility can be assumed safely by the local authorities.

Even when such a decentralisation has taken place, the State should preserve its right to frame the health policy which it is the duty of the local authorities to carry out, as well as its right to supervise the work and remedy the deficiencies of the local health service.

2. The public health officer fully responsible for the promotion of the health work in a rural district should give his whole time to his official duties : the practice of medicine[1] in particular is incompatible with the work of such an official. He should be a doctor trained in hygiene and preventive medicine according to the recommendations of the Conferences of Directors of Schools of Hygiene at Paris and Dresden (document C.H.888). His compensation should be sufficient to assure him a comfortable living. He should enjoy security of tenure in office, subject to the proper discharge of his duties, and have the right to a pension when age or the completion of a fixed number of years of service make it necessary for him to retire.

3. The optimum size of a rural district for which one full-time health officer may be responsible will vary with the density of the population, the means of communication, the prevailing diseases, and other local conditions. Subject to these variables a population of from twenty thousand to one hundred thousand, or an average of fifty thousand, may be fixed, it being understood that one or more full-time assistant health officers will be needed for populations in excess of fifty thousand.

The rural health district must always correspond with the administrative district in view of the difficulties which would otherwise result. As, in European countries, such administrative districts almost always have populations in excess of fifty thousand, they may be suitably staffed by the appointment of one full-time health officer with the proper number of assistants.

4. The experts consider that the health authorities of the rural districts described above should be responsible for the protection and promotion of the public health in all its aspects. The district health officer, as executive officer of the health organisation, should be entrusted with the realisation of the entire programme in order to ensure the economy and efficiency resulting from unity of direction.

5. The minimum staff for such a rural health district should consist, in addition to the health officer, of one or more public health nurses, a sanitary inspector, and a clerk.

The nurse should have a diploma in generalised public health nursing from a recognised school of health nursing or its equivalent. The experts consider that the programme of such nursing schools should be studied by the competent commission of the League's Health Organisation.

The sanitary inspector should have received suitable training at a school or institute of hygiene. Under the direction of the health officer, he should be able to inspect foods,

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[1] This recommendation refers to the *private* practice of medicine. In some countries where medical assistance is a responsibility of the public health service, work in the field of medical practice may be a duty of the public health officer.

investigate and abate nuisances and carry out the work of rural sanitation planned by the sanitary engineer.

6. Although in many European countries, the rural district as defined above cannot alone afford to employ a sanitary engineer, the services of such an engineer should be available in all rural districts. Such engineers may be employed by the Central Health Organisation, the State or the Province. Their work should be that described by the Conference at Budapest.

It is important that the programme and methods of training these engineers in all countries should be perfectly adapted to the work they are required to do. The experts believe that the study of this subject should be undertaken by the Health Organisation of the League of Nations.

7. The programme of the health services in such a rural district.

A. *Notifiable Diseases and Vital Statistics.* — The effective work of rural health services depends on the completeness of their information on the prevalence of infectious diseases and on the accuracy with which causes of death are certified.

All doctors practising in rural health districts should be required by law to notify the health authorities immediately of every case of an infectious disease[1] which they have examined. In the absence of doctors, heads of families, teachers and local officials should be required to notify suspected cases to the health authorities.

The attending physician should be required by law to fill in a standard certificate of the cause of death and to transmit that certificate to the local health authorities without delay.

The health officer should utilise every means to keep in touch with the prevalence of infectious diseases in his district—routine epidemiological investigations of cases and contacts, charts and graphs, a diagnostic (consultation) service. The returns of causes of deaths should be studied regularly to the end that the general health programme may be suitably adapted to local needs.

B. *Statistics on Social and Economic Conditions.* — In addition to vital statistics, which permit the health authorities to appraise the results obtained and to adapt their programme to local needs, statistics relating to social and economic conditions (composition of the population, housing, hospitals and other medical institutions, etc.) collected by various agencies, in particular by health insurance institutions, should be utilised by such authorities.

C. *Branches of Work.* — The programme of the rural health services should include measures for dealing with all the health problems which a survey of the district has revealed to be of real importance ; in particular it should relate to :

(1) Infectious disease control ;
(2) The campaign against the so-called social diseases ;
(3) Maternal and infant welfare and school hygiene ;
(4) Sanitation ;
(5) Hygiene of milk and foods ;
(6) Education in hygiene.

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[1] Diseases required by law to be notified.

Provision should also be made for first-aid and for the transportation of the sick in urgent cases.

Laboratory facilities should be available in accordance with the recommendations of the Budapest Conference.

8. In order to ensure the interest and enlist the support of the public, the experts consider it advisable for the health officer to set up advisory councils or consultative committees, composed of leaders in the community or of representatives of agencies[1] which carry on health work.

In the latter case, the Committee should co-ordinate the work of the agencies concerned, and for this reason is worthy of special recommendation.

9. In view of the wide variations in health programmes in the different countries and the considerable differences in local conditions, it is not possible at present to recommend a model budget for a rural health district, or to state what should be the *per capita* expenditure for health purposes. It is also impossible to decide on the percentages of the budgets of States, provinces, districts and communes which should be allocated to the health services.

The experts consider it advisable to secure further information on the cost of rural health services and, to this end, recommend that studies on a uniform plan should be carried out in rural districts under the auspices of the Health Organisation of the League of Nations.

The purpose of these studies should be to determine which effective form of rural health organisation is most economical and, in particular, the cost of the method described by the Budapest Conference in comparison with other methods in use.

10. Official funds for health work in rural districts are derived in varying proportions from the State, the province, the county, the district and the commune. While the State may have to provide the largest proportion when the rural health services are being organised, or in the case of poor districts, it is essential that the proportion contributed by the local authorities should gradually increase.

11. In order to avoid deficiencies and prevent duplications in the promotion of the health of the rural population, it is desirable that collaboration should be established between the public health services and social insurance institutions.

This collaboration might relate particularly to the following work :

Joint study of plans for the provision of sanitary equipment in rural districts ;
Establishment of vital statistics ;
Campaign against tuberculosis, venereal diseases, cancer, mental diseases, etc. ;
Maternal and infant welfare ;
Child welfare ;
Education in hygiene of the rural population.

The collaboration might be realised by means of " Committees of Co-operation " composed of representatives of the public health service and insurance institutions.

12. Collaboration between the health authorities and private health agencies is highly important in the interests of economy and efficiency. The work of private agencies

[1] This recommendation does not apply to health insurance institutions which are treated in paragraph 11.

is of great value in view of the interest they arouse in hygiene, and their contribution to the available health resources and equipment.

Useful collaboration between the health authorities and private health agencies presupposes :

(1) The existence of an effective rural health service and a health programme adapted to local needs.

(2) That the work of private health agencies should be set out in the programme adopted by the responsible local health authorities. In this way, the health officer will play an important rôle in the technical direction of the work of these and other similar agencies, as he is responsible for all public health work in his district.

(3) That, in each rural district, it would be preferable to have a single private health agency concerned with all the health work with which such agencies usually deal.

13. Co-operation between the public health authorities and the agricultural associations of all kinds is also highly desirable. Inspired by the desire to raise the standard of life in rural districts, these associations offer a valuable means of securing the co-operation of the rural population. The results of their work are reflected in health as well as in economic and social conditions, and they are concerned with housing and sanitation as well as with other hygienic measures.

14. The experts desire to draw attention to the higher health standard in rural districts which is obtained by the improvement of general education by such means as the folk high schools in Denmark. Raising the general level of education by such means results in a greatly increased appreciation of hygiene and provides a fertile soil in which to implant ideas of health and sanitation.

B. Rural Health Centres.

1. It is necessary at the outset to specify that rural health centres, considered as agencies particularly adapted to the promotion of public health in rural districts, constitute an integral part of the general health organisation. They are, in consequence, closely related to and dependent on all the elements which form that organisation—in particular, the State or Provincial Institutes of Hygiene, which, in several countries, constitute the most fully developed centre on which all others may depend for technical guidance.

2. It is to be understood that the considerations which follow relate to average centres, and that, in addition to these, there may be a large number of different types, the development of any particular centre being necessarily conditioned by local exigencies.

3. There are two methods of classifying rural health centres ; they may be designated as small or primary centres and as larger or secondary centres, according to their varying organisation and development ; or they may be divided into village or communal, corresponding to primary, and district *(arrondissement)* corresponding to secondary, centres, according to the administrative subdivisions in which they work.

The Conference expressed its preference for the first of these classifications, that is, their sub-division into primary and secondary health centres.

During its second meeting the Commission decided to recommend that there should also be branch health centres of the most simple type to enable the work of such centres to be carried into the smaller villages.

4. Definition. — The rural health centre may be defined as an institution for the promotion of the health and welfare of the people in a given area, which seeks to achieve its purpose by grouping under one roof or co-ordinating in some other manner, under the direction of the health officer, all the health work of that area, together with such welfare and relief organisations as may be related to the general public health work.

In rural districts where such public health work has been organised for some time, it may be difficult to group all health activities under one roof or in the same organisation. Nevertheless, an attempt should be made to co-ordinate the work of existing agencies in the most effective way.

On the other hand, where a modern public health organisation is to be created in new territory[1], the health centre, as defined above, is the best method of attaining the desired result.

I. The Primary Health Centre.

5. In the general public health armament of a given country, the primary health centres with its branch centres represents the terminal stage ; it is the smallest agency adapted to serve the public health needs of the smallest rural area.

The working programme of this centre should be establishe don the basis of a preliminary survey concerning :

1. The topographical conditions of the district — density of the population, distribution (dispersion) of homes, means of communication. This information will facilitate the selection of the sites, and the determination of the number of health centres and branch health centres required.

2. The health and epidemiological conditions among the people ; this information will be equally useful in establishing the centre's programme of work.

6. The Minimum Programme of a Rural Health Centre.

In addition to the campaign against those diseases which the survey has shown it to be of the first importance to prevent, the minimum programme of work will consist of :

(a) Maternal welfare ;

(b) Infant welfare, including pre-school and school hygiene ;

(c) Popular health education ; a practical example may be furnished by the provision of shower-baths ;

(d) Sanitation ; in general, the centre should deal with all the sanitary conditions affecting the people ;

(e) Finally, provision of first aid in urgent cases.

7. In areas where the absence or insufficient number of physicians prevents the adequate provision of medical treatment, and in the case of patients unable to receive proper treatment elsewhere, the health centre should undertake this work.

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[1] The term " new territory ", as employed here, implies that an effective *health service* in the modern sense does not exist.

On the other hand, in areas where medical care and treatment are adequately provided, the centre should limit itself to such treatment as may be necessitated by the requirements of social prophylaxis.

The adoption of this policy by the health centre will assist in securing the co-operation of the practising physician, who will be all the more disposed to co-operate, as the centre, in view of its equipment, is in a position to provide him with valuable assistance in his daily practice.

8. Personnel.

(a) The Director. — The primary health centre, like all other health organisations is under the general direction of the public health officer and of the health administration of the State.

Its actual administration may be entrusted either to an expert medical officer of health (trained in a school of hygiene) or to a general practitioner with a satisfactory knowledge of medicine and the necessary supplementary training (refer to the reports and conclusions of the Conferences of Directors of Schools of Hygiene). This training should, in particular, relate to social hygiene and preventive medicine on the one hand, and on the other to the knowledge required to meet the specific needs of the centre he directs.

(b) The Public Health Nurse (Health Visitor). — No organisation concerned with social hygiene can afford to dispense with the services of the public health nurse.

Generalised (polyvalent) rather than specialised public health nursing should be the rule in rural districts.

Depending upon the various activities of the centre, and the amount of work to be done, one nurse may serve one or more centres.

By means of an intelligent adaptation of her work to the minimum programme of the centre, and taking into consideration such varying factors as the number of families and of patients requiring her attention, the density of the population, the distribution (dispersion) of homes and the means of communication, a nurse may undertake to serve a population of between six and eight thousand.

The nurses employed in the primary and secondary centres should be in possession of diplomas as general public health nurses (from a recognised or State school) and should have received, during their professional education, theoretical and practical training which would fit them for their rural work.

When it becomes necessary to organise or extend the rural health service, in the absence of sufficient graduate nurses, possessing diplomas in general public health nursing to fill all the vacancies, is it wise to resort as an emergency measure and only temporarily to the services of a personnel which has received only elementary and partial training ?

Without doubt, but this method should be applied only on condition that it is altogether provisional, and on the understanding that the personnel so employed shall leave the service at the end of fixed period (at the latest as soon as such personnel can be replaced by graduate public health nurses) unless they undertake to complete the training leading to the award of the diploma mentioned above.

(c) The Midwife. — Should the services of midwives be utilised in the work of the centres, and if so, under what conditions and in what way ?

The fact that the midwife is in a position to render important services to the centre in the care of pregnant women (pre-natal care) as well as in the supervision of the infant during the first days of life, is beyond question.

In these respects, the midwife will become a useful assistant to the nurse entrusted with this work, solely on the condition, however, that she possess the proper qualifications, not only as a result of her training (diploma in midwifery) but also on account of the special instruction she has received in the work entrusted to her.

Under these conditions, the midwife may be attached to the personnel of the centre, to carry out these well-defined tasks, under the direction of the medical director of the centre. The possibility of utilising her services in this capacity will be facilitated in the case of midwives already in the employ of willages (communes).

(d) The Sanitary Inspector. — The sanitary inspector will be entrusted with the supervision and execution of minor sanitary improvements (under the technical supervision and direction of the sanitary engineer attached to the secondary centre) as well as of the measures having to do with general health work such as disinfection, etc.

II. The Secondary Health Centre [1].

9. The secondary health centre is a more fully developed organisation than the primary centre on account of its greater completeness of equipment, its larger personnel and the wider scope of its work.

The secondary centre directs and co-ordinates the work of primary centres and, at the same time, ensures liaison between them and all other health and welfare agencies — in a word, with all agencies connected with the promotion of public health.

10. Programme. — In addition to its work as a primary centre (in its immediate neighbourhood) and to the prevention of those diseases which have been shown to be important problems by the preliminary survey already mentioned, the secondary centre should deal with the following :

(1) The campaign against tuberculosis ;

(2) The campaign against venereal diseases ;

(3) Maternal welfare work ;

(4) Infant welfare work (including the child of pre-school age) with special emphasis on the welfare of the child of school age (school polyclinics) ;

(5) Health education — first, for the general population ; second, by means of special courses and field work for *(a)* doctors, *(b)* nurses, *(c)* midwives, *(d)* sanitary engineers and inspectors ;

(6) Sanitation ;

(7) Laboratory analyses, of a simple and routine character.

The Conference was of the opinion that, in addition to this work, the centre might undertake the provision of first aid in urgent cases and ensure the prompt transport of sick and accident cases by supervising the proper organisation of this service.

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[1] In some countries in Europe, there are provincial or county health officers who have jurisdiction over areas larger than those served by secondary health centres. Such health officers may co-ordinate the work of the secondary health centres.

11. Personnel.

(a) Medical Director. — The Medical Director of the secondary centre should be a full-time physician trained in public health ; this work should preferably be entrusted to the medical officer of health in charge of the district.

(b) Nurses. — The rules set out above concerning public health nurses also apply here, it being understood, however, that, in view of the greater development of the secondary centre, the nursing staff attached to it should be in proportion to the work.

(c) Midwives. — The considerations set out above concerning the employment of midwives apply also to the secondary centre.

(d) The Sanitary Engineer. — Sanitary engineering work forms an integral part of the work of the secondary centre.

This service should be directed by a sanitary engineer with special training for rural work who will be attached to the staff of the centre or seconded for that purpose from the Central Institute, according to local conditions.

The sanitary engineering work in the district served by the secondary centre will, in general, deal with all matters concerning major and minor sanitation, such as provision of pure water, sewage and refuse disposal, housing, etc.

(e) The Sanitary Inspectors. — As many as may be necessary, in view of local conditions (see the considerations above respecting these inspectors).

(f) Laboratory Technicians. — In the administration of the public health services, it should be emphasised that, as a general rule, the laboratory investigations (which not only necessitate the most careful technique, but also a fully experienced staff and the most complete equipment) should be undertaken at the Institute of Hygiene, and that only analyses of the most elementary and routine character should be made at the secondary centre.

Consequently, it will not be necessary in most cases to secure for the centre the services of an expert laboratory technician, as it should be possible to utilise the existing staff for the elementary work which may have to be done.

The State Institute or central hygienic laboratory will utilise the secondary centre as a depot and centre of distribution for its sample containers.

This is the personnel essential for the administration of such a centre, but in case of greater development of one or more of its sections, it may become necessary to secure the services of other technicians (for X-rays, etc.).

Naturally, a suitable subordinate personnel will be required for its internal administration.

12. Committees which might assist the Primary and Secondary Health Centres. — The Conference was of opinion that the work of these centres might receive greater support through the establishment of committees ; first, the official health committee provided for by the sanitary legislation of the State ; secondly, a non-official committee, including in its membership representatives of the local administration, the medical profession, social insurance organisations, the teaching profession, the clergy, private welfare agencies, and, in general, of all who might contribute to the development and the prosperity of the centre on account of their moral, political or financial influence.

13. Equipment. — The secondary centre should be fully equipped in accordance with the requirements of public health and modern medicine. In particular, there should be : a standard Röntgen ray outfit (a mobile outfit as well, if necessary) ; shower-baths ; motors for the transport of the staff.

The Conference considered that failure to provide the staff with the means of transport to enable them to do their work rapidly and to reach all parts of their district would reduce greatly the scope of their technical work.

14. Relationship of the centre to other health agencies. — Certain of the agencies with which the health centre should be in relationship (secondary health centres, specialised dispensaries, institutes of hygiene) also form integral parts of the general health organisation of the country. In such cases, the proper relationship already exists. With others (establishments for treatment and prevention, hospitals, sanatoria, preventoria, social insurance institutions) relationships should be established which will permit the centre to obtain their help either directly or through the secondary centres.

CHAPTER IV. — REPORT OF THE EXPERTS ON THE THIRD ITEM ON THE AGENDA. [1]

" Sanitation in Rural Districts : The Most Effective and Economical Methods. "

GENERAL CONSIDERATIONS.

The experts consider that the improvement of rural sanitation which tends to raise the standard of life in rural districts is dependent in the first instance on economic conditions and education in hygiene.

Schoolchildren in rural schools should receive health instruction adapted to rural needs and conditions.

The Health Authorities should strive to spread the knowledge of hygiene among the people by every available means.

The experts recommend particularly the practice of providing significant examples of good hygiene and sanitation, which should be located where their advantages may be seen and appreciated by the people — *e.g.*, model houses.

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[1] The following experts prepared this report at Geneva on May 12th to 15th, 1931 :

M. VIGNEROT (Chairman), Chief of Rural Engineering, Ministry of Agriculture, Paris ;
M. M. PETRIK, Chief of the Division of Sanitary Engineering, Institute of Hygiene, Zagreb ;
M. Alexander SZNIOLIS, Chief Engineer, School of Public Health, Warsaw ;
Mr. O'DWYER, Chief Inspector of Sanitary Engineering, Dublin ;
Mr. J. F. DUNCAN, Secretary-General of the Scottish Farm Servants' Union, Lanarkshire ;
M. W. F. J. M. KRUL, Director of the Bureau of Water Supplies, The Hague ;
Professor GOTSCHLICH, University Institute of Hygiene, Heidelberg ;
Professor BÜRGER, State Institute for the Hygiene of Water, Soil and Air, Berlin ;
M. Ludovic BONAMICO, Chief Engineer of the Bureau of Civil Engineering, Rome ;
M. G. ONGHENA, Chief Engineer, Union of Belgian Farmers, Louvain ;
M. VAN DER KAA, Chief Inspector of Housing, The Hague ;
M. Julio JORDANA, Engineer, Hydrographic Confederation of the Ebro, Zaragoza ;
Mr. H. Ross HOOPER, Consulting Engineer, Chippenham, England.

Courses in hygiene for builders, contractors and leaders among the rural population are particularly effective.

Education stimulates the desire for sanitary improvement ; suitable legislation provides the means by making cheap credit accessible by grants, bonuses and loans.

Legislation is not effective without proper enforcement and competent supervision.

While the local authorities may be responsible for sanitation, there should be central direction, supervision and stimulation.

There should also be co-ordination of the work of all agencies concerned in rural sanitation.

The work of rural sanitation should be based on a close study and appraisal of all the factors at play.

Particular emphasis should be laid on the necessity for rapid and constant means of transport and communication in rural districts for the purpose of rural housing and health services.

Agricultural associations for the improvement of rural life in many fields are potent means of propaganda and should be led to take an interest in water supply, good housing and other aspects of rural sanitation. The health authorities should co-operate with such associations to this end.

A. Sewage Disposal.

1. Sewerage Systems.

The experts are of opinion that a water carriage sewerage system is the best method of removing sewage.

Sewers can only be installed in rural communities having public water supplies piped to the individual houses.

The practicability of installing sewerage systems depends on the density of the population, the character of the soil and the existing economic conditions.

Open drains, intended to remove rain water and street washings may, under special conditions and when no better system is possible, be used for slop water and other house wastes. Excreta should be excluded from such drains.

Such conditions are found in industrial rural areas where wastes like phenol exert a disinfecting action on the contents of the drains. Open drains may also be used for this purpose in rural districts other than industrial when nothing better offers, providing they are properly fenced off, regularly supervised and the configuration of the surface of the soil permits of a rapid flow (hilly districts).

2. The Disposal of Sewer Effluents.

Sewer effluents may be disposed of by permitting them to flow into a watercourse. lake or tidal basin.

Such a method of disposal is satisfactory providing :

(a) That the quality of the water at a given distance below the sewage outfall is equal to the quality of the water above the point where sewage enters ;

(b) That the dilution is sufficiently great : the rule that the volume of the stream should never be less than 100 times the volume of the sewage previously cleared of solid matter gives good results in practice.

3. Purification of Sewage Effluents.

When it becomes necessary to purify sewage effluents as in :

(a) Closely populated rural districts ;

(b) Districts without an abundance of surface water ;

(c) Districts where it is desirable, to limit stream pollution to a certain maximum,

a number of methods may be adopted in rural districts. These should be simple, adapted to local conditions and require a minimum of care by unskilled staff. These methods are mechanical and biological.

A. *Mechanical Methods.* — The simplest mechanical method is the use of fixed racks* intended to retain the solids.

Settling-tanks also effect a certain amount of purification depending upon the condition of the sewage and the velocity of flow in the tank. In practice, a tank with a capacity of 0.62 of the daily volume of the dry-weather flow, the width equalling one-third of the length, gives good results.

B. *Biological Methods.* — These are always preceded by mechanical methods. The principal biological methods are :

(1) Sprinkling filters : These are best adapted to rural conditions, being inexpensive to instal and maintain, requiring little attention and no trained personnel and being capable of easy repair ;

(2) The remaining methods — such as activated sludge (as at present constituted), contact beds or sand filters — are not adapted to rural conditions.

4. Other Methods.

The following methods may also be used :

A. *Leaching Cesspools * and Subsoil Irrigation.* — These methods can only be used when the ground water is not employed as a source of domestic water supply.

Subsoil irrigation is well adapted for small amounts of sewage such as the effluents from single houses, institutions or small settlements.

Subsoil irrigation should be preceded by some form of mechanical or biological purification.

B. *Surface Irrigation.* — This method is one of the best for rural conditions if the soil is suitable, the area sufficiently large and the treatment properly supervised.

The main consideration should be the proper disposal of the sewage rather than the raising of good crops.

5. Disposal of Sewage in Unsewered Districts.

The main objects of proper sewage disposal in unsewered districts are :

(1) The protection of the surface of the soil ;

(2) The protection of the subsoil water ;

(3) The protection of the sewage from access of flies.

These objects can best be attained by the use of water-tight receptacles in a fly-proof superstructure.

As fresh excreta may contain pathogenic micro-organisms and intestinal parasites, provision should be made for storage of sufficient duration to destroy such organisms.

Methods of providing for such storage are watertight tanks with two compartments for alternate use, or double compartment tanks of which only the second can be emptied.

Another method is the use of pails. As these contain fresh material some form of disinfectant should be used, or the contents should at least be covered with dry earth, peat or other deodorant.

The pail system operates more satisfactorily when there is a public system of collection under proper supervision. As such a system is difficult to maintain in rural districts the disposal of the material must unfortunately be left to the householder whose education in hygiene is not usually sufficient.

Single-compartment tanks may be used in villages where a proper system of collection exists. The contents should be transported in watertight containers to a suitable distance and properly treated, as, for instance, by placing alternate layers of sewage and dried peat in a large open tank.

In rural districts where it is not necessary to prevent the contamination of ground water ordinary unlined pits may be used.

The Java type of privy, consisting of a deep hole of small diameter, into which basket work is inserted, is apparently suitable. It requires further study.

Whatever the method of sewage disposal adopted for individual houses, the privy should be located as far as possible from the well or other source of water supply.

6. Disposal of Manure.

Solid and liquid stable manure should be stored in watertight pits situated as far as possible from the house and arranged in such a way as to expose the smallest possible surface to flies. The pits should also be so arranged as to prevent the contents being subject to the washing action of rain water.

Manure pits should be provided with a special watertight compartment for the liquid manure.

The experts recommend that the prevention of fly-breeding by measures tending to promote the development of heat in manure piles should be made the subject of further experiment and study.

7. Disposal of Garbage.

In built-up rural villages, the regular collection and systematic disposal of house garbage and refuse is the most effective method.

This material may be disposed of by dumping frequently in thin layers and covering with earth, ashes or other dry refuse. Such a method of collection and disposal requires careful and competent supervision.

Another method of disposal is to feed the garbage to pigs, either collectively or on the individual farms. When this method is adopted collectively, the collection and disposal is usually let out to a contractor whose sole object is the fattening of the pigs and who is apt to neglect sanitary considerations.

Garbage is also a prolific source of flies and measures should be taken to prevent flybreeding.

A safe rule to adopt is to treat garbage as infectious matter and to dispose of it in such a way as to prevent the pollution of the surface of the soil, the subsoil by percolation (ground water) and the houses in the neighbourhood by flies which breed in the garbage.

Methods of treating garbage by tanks permitting of the development of heat are worthy of further experiment and study.

B. Water Supply.

An abundant supply of pure water in rural districts is not only an important factor in the protection of the health of human beings and of cattle, but is also of great value in the promotion of agriculture.

1. Public Water-Supply Systems.

(a) *For a Number of Villages.* — The system of central water supply distributed to a number of villages is, when practicable, the best for rural conditions. A large supply is always to be preferred to a smaller one. This system is to be recommended particularly in the more populated areas, and for districts in which suitable water sources are few, as it permits of the most advantageous utilisation of the potable water.

The co-operation of a number of villages to secure a joint water-supply system permits of a more adequate plant, gives the opportunity to employ skilled personnel and also permits the use of methods of purification when necessary. It follows that the source which can be developed most economically may be selected, as purification will remove the possibility of danger. In the case of these central water supplies, any modern method of purification may be adopted as it will be carefully applied and supervised.

(b) For Individual Villages. — The source of the village water supply should be selected after appropriate investigations in order to secure a water free from the possibility of any dangerous contamination.

The necessity for any system of purification is to be avoided as such systems require technical supervision, which is not usually available in rural districts.

Village water supplies should be constructed with due regard for simplicity of design, economy and ease of operation and maintenance.

2. Purity of the Water.

When treatment is necessary, it should be safeguarded in every possible way. The lines of defence should be ;

(1) Protection of the source ;
(2) Purification (sedimentation, filtration, etc.) ;
(3) Disinfection ;
(4) Supervision.

Protection of the source and supervision of the supply are necessary in any case.

When the water is drawn from rocky formations in which fissures exist (limestone, karst) it should be adequately purified. Disinfection by chlorine is at present a practical solution.

When contamination occurs only at rare intervals and for short periods it is advisable to apply chlorine throughout the year, otherwise, when the occasion arises, the apparatus may be out of order. Nevertheless, during the periods of the year when no danger threatens, very small amounts of chlorine may be used, and these may be increased when necessary.

When there is any possibility that a water supply may be responsible for an outbreak of intestinal disease, chlorine should be applied immediately and continued until the investigation is completed.

Portable chlorinating plants should be available at central institutions for use in case of emergency, such as the threatened pollution of a normally pure water supply.

3. Supervision of Water Supplies.

Constant supervision of all public water supplies is necessary. This supervision should relate to the source of the supply, the plant and the distributing system, as well as to the effluent, and should be closest during the seasons when the supply is most likely to be contaminated (dry season, floods, etc.).

The personnel engaged in this supervision should be trained in the hygiene of water.

4. Individual Water Supplies.

These may take the form of wells, springs and cisterns. They should be constructed by qualified persons who have received proper instruction in the elements of hygiene of water, otherwise they are apt to be dangerously located, badly constructed and improperly protected.

The competent authorities should adopt regulations providing for the proper location, construction and protection of individual supplies, and these regulations should be adequately enforced.

For the guidance of local authorities, a model code should be prepared by the central health services.

5. The Central Organisation.

Progress in matters of water supply must be based on scientific research centralised in a suitable organisation, which thus constitutes a hydrological and geological intelligence service for the purpose of locating suitable sources of water supply and for the collection of all other relevant data.

Such an organisation should as far as possible have jurisdiction over all matters affecting water supply in the State or province.

It would be difficult to over-estimate the advantages of a central organisation of this kind. In view of the information at its disposal for the entire State or province, and the expert knowledge of the specialists attached to it, such an organisation would be in a position to ensure that the existing water sources are utilised to the best advantage and that partial solutions of water-supply problems are avoided.

Such an organisation would place at the disposal of individuals, societies and communities technical information and expert advice on matters of water supply and would act as a centre for the education of the people in the hygiene of water.

C. Housing in Rural Districts.

1. There is urgent need for improvement in the housing conditions of rural districts. Progress in this respect is hindered by the depressed condition of agriculture, the lack of cheap credit and the fact that education in hygiene in rural districts has not reached a sufficiently high level.

The housing shortage in cities has led in most countries to concentration on the housing problem in industrial areas, and the needs of rural districts have not always received the attention they deserved.

Suitable housing is a fundamental requirement for rural hygiene. It is influenced by social and economic conditions and in its turn exerts a strong influence on these conditions, resulting in better health and a general elevation of the standard of life.

2. The principal defects of rural housing from the point of view of hygiene are :

(a) Overcrowding. Good houses are too few. There are too few bedrooms in the existing houses. The house may be too small or, in planning it, the existing space may have been insufficiently utilised.

(b) There is inadequate provision of toilet and sanitary facilities.

(c) The living quarters are insufficiently protected from the stables.

(d) The house is so located and constructed as to suffer from dampness.

(e) There is a lack of proper ventilation, lighting and heating.

(f) There is insufficient protection from mosquitoes and flies.

(g) There is insufficient exposure to the sun.

3. Methods of improving Rural Housing. — These are :

(a) Education ;

(b) Cheap credit and improved methods of agriculture ;

(c) Legislation, by-laws and regulations, provided there is sufficient supervision and enforcement.

The practice of making public buildings models from the point of view of hygiene and sanitation is highly recommended.

The construction of model houses at numerous strategic points encourages imitation.

Good housing will appeal more readily to the rural population if the plans are prepared after a study of local customs and social and economic conditions, so as to preserve features characteristic of the district.

Loans at low rates of interest and grants may be provided by legislation, and are potent means of improving rural housing. The award of bonuses for proper construction yields a large return for the investment of small sums.

There should be building codes prescribing minima requirements in respect of sites, exposure, lighting, ventilation, and all sanitary requirements. Technical supervision and enforcement are required to make these effective.

Such enforcement should not be left altogether to the local authorities.

The health authority should have jurisdiction over all sanitary aspects of housing.

The preparation and distribution of standard plans satisfying the sanitary requirements has given good results and should be encouraged. Such houses should be of simple design and economic construction.

4. The improvement of housing for agricultural workers presents difficulties which cannot be solved by education and persuasion alone. The agricultural worker is in a particularly weak position in this respect, and suitable legislation, with proper enforcement, as well as public financial assistance, are needed to cope with this problem.

Poor housing for this class accelerates the exodus of the best workers to the cities, where in many cases more attention has been given to housing for industrial workers, and this in turn lowers the standard of rural life and prevents hygienic improvement.

The experts recommend that the attention of the Rural Hygiene Conference should be drawn to the recommendation of the International Labour Conference (1921) on this subject.

5. Rural housing may also be improved by suitable reconditioning of existing houses. When properly directed and supervised, such reconditioning may yield excellent results sometimes at comparatively small cost.

The construction of model villages and agricultural colonies is of particular interest and importance in respect of rural housing. The tendency to locate industrial plants in rural districts should be encouraged, such new construction offering opportunities for the building up of model villages and the application of all sanitary safeguards.

In the planning of these villages and colonies, the Health Authorities should have jurisdiction over all matters of hygiene and sanitation.

The experts recommend the further study of this problem.

D. Land Improvements or Bonifications.

1. Bonifications are defined by the experts as the complete sanitary reconditioning of the land in areas where the general living conditions of the people are bad, more especially on account of malaria and other endemic diseases which endanger the vitality of the people.

2. This complete sanitary reconstruction is not limited to land drainage, but includes all measures required to bring the land itself under cultivation, and the provision of hygienic living conditions for the population by means of a network of good roads, suitable rural housing, a good water supply, sewage and waste disposal.

3. Under certain conditions it also includes the irrigation necessary for farming purposes, as well as to enable the cattle to be housed throughout the year, this practice being especially indicated in view of the campaign against malaria.

4. Bonifications thus bring about a marked improvement in the standard of living, both economic and hygienic, and should accordingly be regarded as one of the most striking examples of rural hygiene.

The application of the system of bonifications requires the help of the hygienist. This is particularly necessary during the execution of the work.

5. The experts desire to draw the attention of the Rural Hygiene Conference to the importance of proper drainage of water by water-courses, and to the serious consequences resulting from the neglect to maintain these properly, not only in respect of agriculture but also in regard to hygiene.

ANNEX 2.

SICKNESS INSURANCE AS A FACTOR IN RURAL HYGIENE.

REPORT SUBMITTED TO THE CONFERENCE BY THE INTERNATIONAL LABOUR OFFICE.

Summary.

Introduction.

I. Object and Tendencies of Sickness Insurance for Agricultural Workers.

II. Organisation of Medical Aid in Rural Districts through Sickness Insurance.

III. Co-operation between Health Services and Sickness Insurance in Rural Districts.

INTRODUCTION.

Insurance originally grew out of the guild system and commerce, and has made its way but slowly into the rural districts. The peasant began by insuring his property against the elements. The hardships which often accompany country life have made him feel the need for insurance against the risks which menace his health and working capacity. To-day the necessity of constant effort for the maintenance of health and for the prevention of any loss of productive power is becoming equally evident to the rural and to the urban populations.

The extension of social insurance and of sickness insurance in particular to those engaged in agriculture is one of the most important measures taken to raise the standard of health and hygiene in rural districts. The present report gives an account of the nature and extent of the contribution of sickness insurance to the improvement of rural health.

The report consists of three parts.

The *first* part sets forth the *objects and tendencies of sickness insurance for agricultural workers*. Insurance aims at maintaining health, preventing avoidable illness, curing the sick and restoring them to health. The extent of its action depends on the persons covered by insurance, the force of its action depends on the administration of its benefits.

The *second* part describes the *organisation of medical aid in rural districts through sickness insurance*. With a view to maintaining health and to detecting and treating illness in its earliest stages, an insurance scheme establishes an organisation of services and material equipment which enables it to provide efficient medical aid.

The *third* part deals with the *co-operation between health services and sickness insurance in rural districts*. Convinced of the value of the co-ordination of all work aiming at the improvement of rural hygiene, sickness insurance co-operates with the health services in order to render more efficient the protection of rural populations against sickness.

I. OBJECT AND TENDENCIES OF SICKNESS INSURANCE FOR AGRICULTURAL WORKERS.

Necessity and Object of Sickness Insurance.

The maintenance of the health and productive capacity of the workers is of capital importance not only for the workers themselves but also for the national communities desirous of developing their productivity. This object can only be achieved by constant and systematic endeavour to prevent and remedy any loss of health and working capacity.

Social insurance undertakes this systematic effort by adopting measures which are common to every social institution : it confers on persons whose economic position is precarious a definite right to assistance by the community, that right being based on their own contributions to the resources of the community, but, having regard to considerations of economy, it limits the benefits which have to be provided by the community to that which is at once necessary and sufficient for the purpose to be achieved.

Sickness insurance is based upon the mutual aid of those persons who have the greatest need of protection against the possible consequence of sickness. It is administered by the parties concerned, as their own business, the intervention of the public authorities being limited to the supervision of the management.

In the beginning, insurance dealt only with the consequences of sickness, and compensated wholly or in part insured persons who had suffered loss of earnings or other economic loss. Since then, it has progressed. The insured person receives only part of the benefits in cash, the other part being supplied to him in kind. Medical aid occupies the foreground, and insurance is interested more in restoration to health than in compensation. In the latest phase of its development, insurance aims at individual and

general prevention with the object of preserving health and protecting it from every possible danger. Thus insurance has gradually become an organised system for the defence and improvement of health.

Development of Sickness Insurance for Agricultural Workers.

Intended at first for urban populations, sickness insurance is now widely applied to agricultural workers. For many years it was alleged that difficulties of organisation owing to the dispersion of rural populations prevented the extension of sickness insurance to agriculture. Experience, however, has proved that these difficulties can be overcome. As the relations between the agricultural labourer and his employer gradually lost their patriarchal character, and as agricultural labourers formed their own trade unions, sickness insurance for agricultural workers became essential. It is now more necessary than ever if the exodus from the country is to be checked.

In countries which have introduced a general scheme of compulsory sickness insurance, agricultural workers have been included, either from the outset or in successive stages. At the present time, in Europe, there are some five or six million agricultural wage-earners who are compulsorily insured against sickness, leaving out of account a large number of other workers in occupations connected with agriculture who are members of voluntary schemes of sickness insurance subsidised by the State.

In the following paragraphs a sketch is given of the present position of sickness insurance for agricultural workers in Europe.

Compulsory Insurance.

Agricultural wage-earners are compulsorily insured on the same footing as wage-earners in other occupations in the following countries : Austria, Bulgaria, Czechoslovakia, France, Germany, Irish Free State, Netherlands, Norway and the United Kingdom. In other countries — Poland, Rumania and the Union of Soviet Socialist Republics — certain classes of agricultural wage-earners, or agricultural wage earners in certain districts, are compulsorily insured against sickness.

In the *United Kingdom* and the *Irish Free State*, wage earners in agricultural occupations have been covered since 1911 by the general scheme of sickness and disablement insurance under exactly the same conditions as those which apply to wage-earners in industry and commerce.

In *Germany*, the scheme of sickness insurance for agricultural wage-earners, who number about three millions, was unified by the social insurance code of 1911, which abolished the several regional schemes of insurance for agricultural workers, and placed agricultural workers on an entire equality with other workers subject to compulsory insurance.

In *Norway*, agricultural workers are covered by the general scheme of wage-earners' sickness insurance established in 1915.

In *Czechoslovakia*, the general scheme of sickness insurance was extended to include all wage-earners in agricultural occupations, who, since 1926, are afforded the benefits, in cash and in kind, of invalidity insurance on the same terms as industrial wage-earners.

Bulgaria, since 1924, has applied its social insurance legislation to agricultural wage-earners, with the sole exception of certain classes of seasonal workers.

In *Austria*, the scheme of sickness insurance for agricultural wage-earners has been unified by an act of 1928 which established a complete system specially adapted to the needs of rural populations.

In *France*, the new general social insurance law of April 30th, 1930, has granted special advantages to workers engaged in agricultural and forest occupations. Wage-earners in these occupations are compulsorily insured, as are also share-farmers who work ordinarily alone and do not possess any part of the live-stock at the time when they begin farming. Moreover, voluntary insurance is open under easy and very favourable conditions to other share-farmers and independent farmers who, without being wage-earners, live mainly by the product of their work and whose earnings do not exceed a comparatively high maximum.

Voluntary Insurance.

The object pursued by the French law, which was to bring within the ambit of social insurance all workers, whether wage-earners or not, in agricultural occupations, has been attained without compulsion in a single country — *Denmark*. In circumstances which are exceptionally favourable, by means of insurance which is voluntary but which is heavily subsidised by the public authorities, the Danish sickness insurance funds cover nearly three-fifths of the entire population, and thus include, without any important omission and without distinction of occupation, almost all the adults whose social condition calls for mutual aid.

Though not achieving the same result, voluntary sickness insurance has also made its way into the rural districts of other countries — *Belgium*, *Spain* and *Switzerland*, in this last country thanks mainly to the fact that insurance has been rendered compulsory by the cantons or the communes.

In other countries which have already accepted the idea of compulsory sickness insurance, Governments have made plans for extending sickness insurance to cover wage-earners in agricultural occupations. Bills to this effect have already been either tabled or discussed in *Belgium* (sickness, invalidity), *Rumania* (sickness), and *Poland* (invalidity). The development of sickness insurance for agricultural workers is more advanced in *Italy*, where under the auspices of the Ministry of Corporations and by agreement between the two national confederations of employers and agricultural workers, the National Federation of Sickness Insurance Funds for Workers in Agriculture has recently been created.

The depression from which agriculture in Europe has been suffering for several years has doubtless increased the difficulties and checked the movement for the extension of sickness insurance for agricultural workers. Nevertheless, sickness insurance has been proved just as valuable in rural districts as in urban areas, and in no country will it be possible in the long run to exclude workers in agricultural occupations from its benefits.

Organisation of Sickness Insurance for Agricultural Workers.

Though sickness insurance for agricultural workers has not reached the same standard in the different countries, its development during the post-war period appears to be along convergent lines, and everywhere there seems to exist a desire to extend and intensify insurance in rural districts.

The circle of compulsorily insured persons is widening. All agricultural wage-earners, whether or not they live in their employer's house, are subject to compulsory insurance, whatever the nature and form of their remuneration. With the exception of the wife, no member of the employer's family who works for remuneration is exempt from com-

pulsory insurance. The wage-limit prescribed in several countries in connection with liability to insurance does not affect the great majority of agricultural wage-earners, and even the salaried workers who supervise and direct agricultural work are only rarely excluded from compulsory insurance by the wage-limit. Some classes of persons working on their own account whose economic and social situation resembles that of day labourers and farm servants are subject to insurance on the same footing as wage-earners.

The widest facilities for voluntary insurance have in recent legislation been offered to peasants and farmers, even to peasants who work alone or with the help of members of their family, or who do not employ regularly more than two wage-earners.

Sickness insurance is essentially concerned with the family. It affords protection to the working-class family and not to the worker only. Post-war legislation provides the family of the insured person with free medical treatment and drugs, or at least requires insurance institutions to pay part of the cost of such benefits. For the first time the entire insured population is subject to regular and systematic medical supervision.

The class of benefits provided by an insurance scheme is the best criterion of its value and shows the particular task assigned to sickness insurance in the general work for rural hygiene.

The benefits of sickness insurance are adapted to the threefold purpose of its health work : to maintain and strengthen health, to prevent sickness, and to cure disease in its earliest stages.

The object of the curative benefits is to diagnose the symptoms of disease, to determine their significance for the patient, to relieve his sufferings, to offer him all the assistance he needs, and to secure by appropriate treatment a rapid and complete cure.

The benefits which aim at the maintenance of health include all measures tending to increase the physical resistance of the insured population against disease and all instruction given to the individual in personal and domestic hygiene.

Preventive benefits are based upon the systematic seeking out of cases where medical intervention is necessary, and on the determination of the physical condition of the individuals concerned, their economic situation and their family circumstances. Where necessary, medical and economic measures are taken for the protection of the insured person until a lasting result is obtained.

These tendencies are clearly shown in all countries where sickness insurance has been in operation for many years. They were found by the International Labour Conference, which at its 1927 session undertook a general examination of sickness insurance, to be so similar and so sound that it decided to draw up for agricultural wage-earners, as for wage-earners in all other occupations, a system of international regulations for sickness insurance.

International Regulations for Sickness Insurance of Agricultural Workers.

Under the Convention which was drawn up as the result of the International Labour Conference's discussions and which is already in force in six European countries having several million agricultural wage-earners, states undertake to establish compulsory sickness insurance for wage-earners in every agricultural undertaking whatever.

The Convention guarantees to insured persons, in exchange for a contribution deducted from their wages, not only subsistence allowances in case of loss of wages through sickness, but also a right to medical benefit during the first twenty-six weeks or sickness at least. Medical benefit comprises treatment by a fully qualified medical man and a supply of medicines and appliances adequate as regards quantity and quality. The

Convention leaves each State free to authorise or prescribe the conditions under which medical benefit, as thus defined, may be granted to the members of an insured person's family.

The International Labour Conference laid down in the Convention the minimum conditions from the medical point of view that any sickness insurance must fulfil. The Conference further drew up, in the form of a recommendation addressed to national legislatures, a set of general principles which long experience has shown to be the best for promoting the organisation of effective medical aid. These principles relate to the development of various forms of medical treatment, the supply of drugs, dental treatment and hospital treatment ; they urge sickness insurance institutions to assist in inculcating the rules of hygiene upon the workers and to grant preventive treatment to as large a number of persons as possible as soon as the premonitory symptoms of disease appear.

These principles, representing a selection, from general rules which have proved their value, constitute a health programme for sickness insurance institutions and are the basis of their daily work among insured persons and their families.

II. ORGANISATION OF MEDICAL AID IN RURAL DISTRICTS THROUGH SICKNESS INSURANCE.

Elements of Efficient Medical Aid in Rural Districts.

If it is to be adequate and efficient, every system of organised medical aid must afford the population all the means required for the maintenance of health and the detection and treatment of disease in its earliest stage. Insurance must provide this medical aid because the law requires it to do so in the interest of insured persons and in the general interest.

Sickness insurance institutions enable insured persons to procure medical treatment and any sanitary assistance they require, to choose a doctor they have confidence in, to avail themselves of the services of specialists, and to obtain admission to a hospital, sanatorium or convalescent home. The same facilities are, according to recent insurance legislation, likewise granted to members of the families of insured persons.

The doctor who undertakes the treatment and supervision of insured persons is required to take all necessary measures to alleviate suffering and to restore the health of the patient. The efforts of sickness insurance to supplement and perfect its system of medical aid have entailed a considerable increase in its expenditure on benefits in kind as compared with expenditure before the war. The principles of economy on which the administration of social insurance institutions is based require that the doctor should comply with these principles in drawing up his prescriptions. If he has a choice of several methods of proved efficacy for the prevention, alleviation or cure of the complaint from which the patient is suffering, the doctor, having regard to the constitution, mental disposition and social and occupational situation of the patient, must choose the method which will bring about his cure and restoration as speedily as possible, at the smallest possible cost and with the maximum chance of success. In order to make the task of the practitioner easier, insurance institutions endeavour to place at his disposal all the latest facilities for diagnosis and treatment, and to take all steps to instruct insured persons in the rules of hygiene which they should observe in order to maintain their health.

Medical Benefits of Sickness Insurance.

1. *Predominance of Benefits in Kind.*

Benefits in kind are the foremost consideration of insurance institutions, and account for the greater part of their funds.

In *Czechoslovakia*, for instance, the rural sickness insurance institutions expend on an average, per case of sickness (confinements excepted), 110.56 crowns for sickness benefit; 70.30 for doctors' fees; 34.30 for drugs; 64.19 for hospital expenses; total 279.35 crowns (1927).

As benefits in kind develop, the place of the doctor in sickness insurance becomes more important, and the greater also is the need of insurance institutions to have in their service a sufficient number of doctors suitably distributed over the whole national territory and in all the rural areas.

2. *Facilities afforded by Sickness Insurance to improve the Distribution of Doctors.*

In areas where doctors are lacking, sickness funds endeavour to make it easier for them to set up in practice ; besides affording the essential encouragement of entrusting him with the treatment of insured persons, the sickness funds also assist the doctor by securing him accommodation, by enabling him to maintain one or even two surgeries, or by granting him adequate mileage allowances and special allowance in areas which are particularly difficult to cover.

In sparsely-populated areas, doctors who undertake the treatment of insured persons receive from insurance institutions special advantages such as additional remuneration and opportunities of following post-graduate courses (*e.g.*, insurance doctors in the Scottish Highlands).

By this variety of measures, sickness insurance has facilitated the access of rural populations to the doctors and done much to improve the distribution of practitioners.

In certain countries, sickness funds, acting in conjunction with the medical profession, endeavour to draw up a plan for the systematic distribution of doctors throughout the national territory, with the object of assisting young doctors who could not set up in the towns to obtain practices in the rural districts.

3. *Specialists and Dental Surgeons.*

The system of medical aid afforded by sickness insurance also includes, in the majority of countries, the services of specialists and dental treatment. The principle of free choice operates here also, and insured persons are entitled to choose the specialist or the dental surgeon. When necessary, insurance institutions repay the cost of travelling to consult a specialist.

4. *Facilities for Diagnosis.*

The first condition which must be satisfied by an adequate and efficient system of medical aid and by a vigilant system of prevention is that it should secure sound diagnosis. In the present state of medical science and technique the thorough examination of patients requires special methods and apparatus such as X-rays, and bacteriological, chemical, microscopic, serological, and histological examinations. If the practitioner has not the experience or the apparatus necessary for such examinations, insurance institutions arrange for them and pay the expenses. Specialised diagnosis and treatment centres,

dispensaries for the treatment of tuberculosis and venereal diseases, baby clinics, and other similar institutions, help the practitioner in making his diagnosis and drawing up his plan of treatment. These specialised centres and institutions give the doctor valuable information, and even, when circumstances require, provide treatment.

5. *Facilities for Treatment.*

The practitioner in rural districts, more often than his colleague in the towns, needs assistance in the application of special methods of therapy.

For ultra-violet ray treatment, insurance institutions contract with specially-equipped establishments ; some possess establishments of their own. The same is the case with hydrotherapy and mechanotherapy.

The conditions peculiar to rural life render it necessary to organise a service of trained nurses and visiting nurses.

The work of nurses in rural districts on behalf of sickness insurance has in certain countries been regulated in detail, as, for example, in *Germany*, where rules were laid down by the Federal Committee of doctors and sickness funds on April 10th, 1924.

6. *Hospital Treatment.*

Not only the urban, but also the rural population avails itself to an ever-increasing extent of treatment in hospitals and other curative institutions.

The objects of hospital treatment comprise not only curative measures, but also diagnosis and the detection of diseases by observation of the patient.

Insurance institutions leave to the public authorities, the State and the local governments the function of establishing and managing hospitals, and only undertake this task themselves in special circumstances.

Nevertheless, sickness insurance is helping considerably to improve and modernise hospital equipment.

The cost of hospital treatment represents an appreciable proportion of sickness insurance expenditure.

In *Czechoslovakia*, the rural sickness insurance institutions expended in 1927, per insured person, 40.38 crowns for medical treatment ; 19,14 for drugs ; 28.80 for maintenance in hospitals.

In *Austria*, the agricultural sickness funds expended, per insured person per annum 16.05 schillings for medical and dental treatment ; 4.92 for drugs ; 8.28 for hospital treatment ; 2.84 for obstetrical treatment ; 2.59 for general preventive treatment (1928).

In *Germany*, rural sickness funds devoted 28.9 per cent of their expenditure to medical treatment ; 13.4 per cent to drugs ; 37 per cent to sickness cash benefit ; 16.2 per cent to hospital treatment ; 4.5 per cent to obstetrical treatment (1926).

Insurance institutions bear the cost of conveying patients to and from hospitals ; some institutions have their own ambulances.

In order to assist the hospitals and to lessen the drawbacks of hospital treatment for insured persons, and also to reduce their own hospital expenses, a great number of sickness insurance institutions enter into contracts with hospitals and set up their own establishments for special treatments, particularly that of tuberculosis. Certain insurance institutions, moreover, have provided infirmaries for chronic cases on whom hospital space would be wasted, as well as convalescent homes and colonies.

7. *Auxiliary Medical Staff.*

Among the auxiliaries of the doctor, the *trained nurse* takes first place, since her help is indispensable for certain forms of treatment in the patient's home.

It is the duty of the public authorities to see that there are a sufficient number of *midwives* in the rural districts. Sickness-insurance institutions also encourage midwives to establish themselves in the country by granting them a favourable scale of remuneration and by entrusting them with the care of insured women before and after confinement, unless special institutions for this purpose have been created in the district.

Masseurs and other skilled auxiliaries also receive considerable professional and financial assistance from the sickness insurance.

The regular employment of *visiting nurses* becomes indispensable to sickness insurance in the systematic development of its treatment and preventive services in rural districts.

The Contribution of Sickness Insurance to the Prevention of Sickness and the Preservation of Health.

Sickness insurance contributes considerably to the work of prevention and to the improvement of public health.

It is not easy to estimate the value of this contribution, or to deduce it from the budgets of insurance institutions, in which treatment benefits take the foremost place. It consists in particular measures which differ from one district to another and are conditioned by the nature and urgency of local needs.

1. *Local Hygiene.*

Insurance institutions contribute to the development of local hygiene by encouraging the building of healthy dwellings by making advances on mortgage, by spreading a knowledge of the rules of hygiene whereby the domestic habits of the rural population are improved, and by making available means of disinfection, means of destroying insects, etc.

A great many sickness funds create and maintain, either on their own account or in co-operation with the local authorities, bathing establishments available to the entire population.

By organising an efficient system of medical aid for insured persons and their families, sickness funds provide an indirect but real contribution to the facilities for diagnosis and treatment available to the uninsured population.

By the grant of adequate and efficient medical and obstetrical assistance through a properly qualified staff, social insurance institutions are combating superstition and quackery.

2. *Popular Instruction in Hygiene.*

Recognising the necessity of inculcating the practice of the rules of hygiene, many sickness funds have set up special services for health propaganda, their duties including the preparation of films, lantern-slides and tracts, and the organisation of permanent or travelling health exhibitions open to the public, free of charge.

By the nature and extent of the medical aid which it affords to insured persons and their families, and by its activity in the prevention of disease and the protection of health, sickness insurance is indeed reducing the risk for which it is liable, and it is at the same time a powerful factor in raising the standard of rural hygiene.

III. CO-OPERATION BETWEEN HEALTH SERVICES AND SICKNESS INSURANCE IN RURAL DISTRICTS.

The Value and Object of Co-operation.

Responsible as they are for the health of their members, sickness funds endeavour to bring about conditions conducive to the preservation of a good state of health. Their efforts would not be fully successful if they did not take into account, when drawing up and carrying out their programme, the work of health services and public assistance institutions. The principles of economy upon which sickness insurance is based require it to be always seeking, by the avoidance of gaps and overlapping, the greatest efficiency through the co-ordination of its work with that of all other institutions having a similar object.

Such a co-ordination of effort is more necessary in the rural districts than in the towns. Rural populations must have an organised system of health protection. Housing conditions and domestic habits are often unhygienic. Rural populations frequently lack drinking-water, opportunities for baths, means of disinfection, etc. The distances between houses make it difficult to arrange for consultations, for it is not easy to find suitable premises. A further trouble is that rural populations stubbornly resist the first attempts at health protection, but this resistance must be overcome in their own interest. In view of the extent and difficulty of the task, all efforts must be inspired by a common will.

Co-operation in the field of health protection has a definite object in view whichis determined primarily by local conditions and needs. Each co-operating party contributes to the execution of the programme jointly agreed upon, by performing the function it has undertaken.

Fields and Methods of Co-operation.

The preparation in common of a plan for the medical and sanitary equipment of rural districts must be undertaken by health services and social insurance institutions as the first step towards co-operation on a large scale.

Among other fields in which organised co-operation is necessary, mention may particularly be made of the campaigns against tuberculosis, venereal disease, cancer and mental diseases, maternity and infant welfare, child welfare, and the instruction of rural populations in hygiene.

The order in which these different tasks could be generally taken up depends on the comparative urgency of this and that preventive or protective measure. Sometimes the organisation of child welfare or the campaign against tuberculosis will appear the most urgent, sometimes it will be better to deal first of all with venereal disease or alcoholism.

Co-operation will be carried out by means of joint committees composed of representatives of health services and social insurance institutions together with delegates of the medical profession and public assistance institutions. These committees, while not encroaching upon the autonomy of the several parties, will draw up a programme of joint action, and will decide the best methods of procedure and the contribution to be made by each party to their joint undertaking for the defence and improvement of rural hygiene.

ANNEX 3.

EXTRACTS FROM THE REPORT ON WATER SUPPLIES IN RURAL DISTRICTS.

PRESENTED BY M. W. F. J. M. KRUL, DIRECTOR OF THE NATIONAL BUREAU FOR WATER SUPPLY AT THE HAGUE.

I. IMPORTANCE OF GOOD WATER SUPPLIES IN RURAL DISTRICTS.

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When water systems were installed in the rural parts of the *Netherlands*, farmers and cattle-breeders began only gradually to show any appreciation.

Nevertheless, particularly on account of co-operative dairies and agricultural associations, the favourable experience of the pioneers did not fail to cause imitation on the part of others.

In *Denmark*, which is above all a country devoted to cattle-raising, small groups of peasants installed quite simple rural water systems without any encouragement from the authorities. In 1924, there were 1,200 such systems carrying water to 34,000 houses.

In many villages in the hilly parts of *Poland*, it was the peasants who planned and installed local water systems ; in a number of cases the mains are several kilometres in length.

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II. COLLECTIVE SYSTEMS.

1. *Regional and Centralised Systems.*

(a) *Regional Systems of Distribution.*

Every province in the *Netherlands* has adopted regulations prohibiting the installation of a water service before securing permission from the provincial authorities. Such permission may be refused in the interests of the more economical supply of a certain region. Legislation on this subject for the whole country is being prepared.

In several European countries, the system of regional supplies has developed fairly rapidly.

In *Germany*, in addition to industrial districts where model systems of considerable size have been installed, it is mostly in *Bavaria* and *Wurtemberg* that many collective water systems are found, on account of the geo-hydrological and topographical situation as well as the work of the central institutes for water supply in those States.

In *Saxony*, the Government has increased the available supplies secured from the Mulde and Wilzsch rivers by means of storage basins. The water, after purification, will be distributed in the first instance to fifteen settlements with a combined population of 125,000 inhabitants.

In the region of Santerre (the Aisne), *France*, eighty-nine communes, with a combined population of 44,000 inhabitants, receive water from a single system divided into four sections.

It is principally in the hilly industrial regions of *Belgium* that larger or smaller regional water systems are found. These are, however, not real examples of rural water supplies. In the agricultural lowlands, regional systems are still few in number.

There is an increasing tendency in *England* to construct regional water systems.

Such systems are very popular in *Czechoslovakia*. At the end of 1918, there were thirty-two regional supplies serving eighty-five settlements, with a combined population of 137,000. At the end of 1929, there were forty-three systems for 214 settlements, with a total population of 206,000. In *Bohemia*, eighty-six water supplies, of which twelve were regional, were installed in 1929.

The first system of this kind is now being installed in *Yugoslavia*. It will supply a number of settlements on the Adriatic coast.

In the *Netherlands*, these systems, of which several supply relatively large populations, are found mostly in the rural districts. The oldest system, installed in 1913, is that of the island of Zuid-Beveland, supplying twenty-five communes.

The largest, installed in 1920, is in the province of South Holland. It supplies 106 communes, with a total population of 400,000. The annual yield of water reaches ten million cubic metres ; the total length of mains is 1,700 kilometres and the capital invested amounts to seventeen million florins.

There are at present in the Netherlands fourteen regional systems supplying approximately 500 rural communes.

We are so fully convinced of the value of regional water supplies that we plan to install such a system in the new polder " Wieringermeer ", the first part of the " Zuyderzee " to be drained. In spite of the fact that this polder has an area of 20,000 hectares and that houses and farm buildings will be constructed only gradually, cisterns, which would be the only possible sources of individual water supply (the ground water being salty) will be prohibited. Moreover, the cost of a regional water system is not too great in comparison with the cost of the other undertakings which have been necessary to open up this new territory.

In certain instances, the fact that water must be secured at a long distance from a city makes it possible to supply the rural districts situated along the water main. An example of this is found in *Wurtemberg* (Germany), where more than one hundred villages are supplied from the main which carries water from the pumping-station in the valley of the Danube to Stuttgart. The water is pumped to a reservoir in each village, and the local distribution is carried out by the village.

(b) *System of Distribution for Individual Villages.*

All chemical and biological systems of purification, even the very simple modern systems using chlorine, require technical supervision and maintenance, which a small communal service is not in a position to furnish.

Small village systems should be allowed only when no purification is necessary and when the supply of the village does not prevent the economical solution of water supply for the whole region.

It is impossible to avoid partial, uneconomic solutions without effective legislation based on suitable investigations of the problem of water supply in the whole country.

It is not astonishing that, in areas where the necessary supply of sufficiently pure water may be secured at a suitable level, the number of small supplies should increase rapidly.

In *Switzerland*, for example, where good water is plentiful, nearly all the villages are furnished with piped water supplies.

On account of the development of modern technical methods, particularly in respect of pumps and motors, and the distribution of electricity in rural districts, it is possible to utilise conveniently situated sources, such as deep wells or other low-level waters. Large economies result from the use of shorter mains, less expensive pumping stations, reduced cost of upkeep and the fact that electric machinery requires a minimum of attention.

In *Denmark* the number of rural water supplies increased from 62 in 1900 to 1,200 in 1924. These systems supply 34,000 houses.

In *France*, in 1930, of 37,963 communes, 8,004, or 23 per cent had systems of water supply in use or under construction.

In *Czechoslovakia*, at the end of 1928, there were 1,940 village water systems. In 1930 and 1931, 304 systems were constructed.

In *Poland*, in villages where the land has been divided into a large number of small holdings and in the new villages constructed on such lands, the Minister of Agriculture causes water systems to be constructed, using deep wells as sources. The water is pumped by a windmill, with an internal-combustion motor in reserve.

For financial reasons, water from a central system is sometimes distributed to the consumers by means of street hydrants. In *Poland*, for example, it is the exception in villages for houses to be connected to the street mains.

2. *Purity of Water.*

When the source of the water is not absolutely above suspicion, it is necessary to establish a protected area. The laws of the country should facilitate the establishment of such an area.

The *French* Law of February 15th, 1902, on the protection of the public health provides for the protection against contamination of water from springs or wells, but does not provide for surface waters which require purification. The same law regulates the disposal of wastes as well as the sinking of wells in a given area surrounding the source, and permits expropriation of lands in that area when that is necessary in the public interest.

The possibility of expropriation is provided for by law in nearly all countries.

In *Belgium*, the Law of August 1st, 1924, provides for the protection of mineral or thermal sources.

In *Switzerland*, the Law of December 10th, 1907, prohibits the construction of buildings or the extension of other undertakings which might be detrimental to the purity or decrease the capacity of sources of water supply.

In *Germany*, water sources may be protected by police regulations, prohibiting the carrying out of detrimental undertakings in a given area.

In *Prussia*, a special law was enacted in 1908 to protect medicinal water sources.

In *Prussia* and *Baden*, the law on the use of water prohibits taking ground water in such a way as would be detrimental to a source of supply ; the fact that damage is caused must be proved. Contamination of the ground water detrimental to water-supply sources is prohibited in *Prussia*, *Baden* and *Saxony*.

In *England*, the "Waterworks Clauses Act" (1847) protects ground waters only from mines. The central "Advisory Committee on Water" has drafted regulations to increase the possibility of protecting water sources.

III. Supervision of Water Supplies.

In view of the fact that the contamination of a public water supply may have disastrous consequences, the public authorities should take measures to ensure a maximum of safety to consumers.

In *Germany*, all wilful, as well as all involuntary, pollution of pure water is punishable if any damage is caused *(Reichsstrafgesetzbuch)*.

In *France*, a draft law is in preparation, providing several penalties for persons who, by lack of attention, negligence, lack of care, or failure to comply with the health regulations, cause the delivery to the consumer of water detrimental to the public health.

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In *England*, water-supply plans must be submitted for approval to the Ministry of Health if it is necessary to raise a loan. The plan is studied in detail according to standard rules.

In *Denmark*, the law provides that ground waters are, in principle, the property of the State, and that only water companies which have received a concession may develop such sources.

In *Germany*, the grant of such a concession is necessary before using river or lake waters.

The permanent supervision of water systems is regulated satisfactorily in *Germany*. Article 35 of the Federal law on epidemics (July 30th, 1900) provides that in all Germany State officials may supervise all water supplies distributed to the public. Moreover, all the German States appear to enforce the "Rules for the Establishment, Development and Supervision of Public Water Systems not used solely for Technical Purposes" which the Federal Council approved on June 16th, 1906, recommending that they should be adopted for guidance by the Governments of all the States.

These provisions were supplemented in the different States by special legislative provisions.

In *Prussia*, Article 74 of the "Rules of Service for District Medical Officers" *(Kreisarzte*, September 1st, 1909) recommends that such officers should pay particular attention to the proper distribution of water to the people, and that they should advise on plans for water systems. The situation is about the same in other German States.

The medical officer sees to it that the water is regularly examined bacteriologically. Sanitary supervision extends also to the personnel of waterworks if such personnel comes into direct contact with the water. The stools and urine of this personnel, especially newly engaged persons, are subjected regularly to bacteriological examination in order to determine whether typhoid or dysentery bacilli are present.

The district medical officer is accompanied by a technician when he inspects complicated systems. Such inspections take place once every three years for small systems, biennially or annually for larger systems.

In *France*, the Superior Council of Public Health has prepared general instructions for municipalities to guide them in the use of methods of purifying and sterilising drinking water.

In *England*, the systems must be inspected and supervised at regular intervals by the officials of county health departments.

In the *Netherlands*, the inspectors of the hygiene of water, soil and air make regular examinations of water. For the technical inspection of water systems, they may have the assistance of the National Bureau for Water Supply. In the Netherlands, as elsewhere, the sanitary inspector may not have the means to correct the defects found. In *England*, on the contrary, the Public Health Act (1875) and the Waterworks Clauses Act (1847), as well as special regulations, require the majority of water systems to distribute pure water in sufficient quantity to the consumer on pain of prosecution.

In *Germany*, the law on epidemics (*Reichsseuchengesetz*, June 30th, 1900) requires the communes to remedy the defects found by State officials.

The effluents of water-supply systems should be bacteriologically examined frequently, by standard methods as far as possible, to determine the total bacterial count as well as the possible presence of colon bacilli.

IV. Individual Supplies.

The *Prussian* Institute for the Hygiene of Water, Soil and Air at Berlin-Dahlem has given for some years appropriate training in the hygiene of water to well-sinkers, in collaboration with the German association of well-sinkers. Ten of these courses have been given and about two hundred well-sinkers have been trained. It would be wise to supplement these courses in future by further instruction.

The laws of many countries contain provisions respecting individual water supplies.

The *English* Public Health Act (1875) provides that rural district councils shall see to it that each house in the district is furnished with water from a source located within a reasonable distance and giving a sufficient supply of pure water for the use of the householders and for other domestic purposes.

The owner of every house built or reconditioned since 1878 must secure from the rural district council a certificate stating that he has complied with this requirement.

In *Saxony*, the right to build on any lot is accorded only if a sufficient supply of pure water exists nearby. A Ministerial Decree contains the same requirement for *Wurtemberg*.

In the *Netherlands*, the Housing Law (1901) requires municipalities to adopt the regulations required to furnish all houses within their territory with good water.

These regulations, in the case of many communes, require the owners of houses located within a certain distance of mains from a central water system, to connect the houses to such mains, unless, of course, such houses have already another supply always furnishing good water in sufficient amounts.

In *France*, the use of private or communal wells may be prohibited by the mayor, or if necessary, by the prefect.

In *Prussia*, the law *(Wassergesetz)* requires every house-owner to connect the house to the main unless a pure water supply is furnished by other means.

In certain countries, the construction of wells is subject to the approval of the authorities. In *Prussia*, for example, local regulations have been adopted on this subject. *(Brunnenordnungen)*. In *Saxony* and *Wurtemberg*, the construction of wells and cisterns is subject to authorisation. The *Polish* Ministry of the Interior has provided by decree for the proper construction of wells. The central authorities frequently prepare model regulations for local adoption. For example, the *French* model code of sanitary regulations intended for the rural communes, and prepared by the Superior Public Health Council, contains rules for the construction of wells and cisterns. The *Prussian* Government has prepared a model for the *Brunnenordnungen*.

In the *Netherlands*, the Director-General of Public Health, in collaboration with the Chief Inspector of Housing, has prepared a model for municipal regulations on housing in which rules for the construction of wells and cisterns appear.

The collaboration of the rural population is necessary for the improvement of private water supplies. However, the people frequently show that their knowledge of the hygiene of wells and cisterns is insufficient. The public should be instructed in this matter.

In *Yugoslavia*, the health services have constructed model springs, wells and cisterns in all parts of the country where water-supply systems do not exist.

There are hundreds of these models, and they are distributed over the whole territory of the State in such a way that they are known to large numbers of people. Moreover, the institutes of hygiene organise public lectures, give courses for peasants and distribute simple plans for the development of springs and the construction of wells and cisterns.

In *Poland*, model wells have been constructed for municipal buildings, post offices, schools, etc., in villages.

V. The Central Organisation.

In order to improve rural conditions of water supply, a motive force of great energy is needed. Such energy is best guaranteed by a central organisation provided with the necessary powers. Some countries have developed such central organisations with great success.

The oldest of these is the *Wurtemberg* Office for the Construction of Public Water Systems, dating from 1869.

The Bavarian Institute for the Supply of Pure Water dates from 1900.

The high level of water supplies in these two States is without doubt due to the work of these institutes.

In 1901, the Institute for the Hygiene of Water, Soil and Air was Founded in Prussia. It is administered by the State with the collaboration of the Union for the Hygiene of Water, Air and Soil, from which it receives financial support. The members of this union (municipalities, industries, individuals) have the right to receive advice from the institute at reduced prices. The institute has a large number of scientific workers in hygiene, chemistry, bacteriology, biology and engineering. It carries out scientific investigations, the results of which are published in special communications or periodicals, gives advice, when asked, at cost price, collects hydrological data as well as other information and exercises an educational influence by means of a museum, by assisting with exhibitions and by giving courses to special groups of technicians or hygienists (courses to well-sinkers mentioned above).

The National Society of Water-Supply Systems was founded in *Belgium* in 1914. The capital is furnished by the State, the provinces and the communes. The society first made an inventory of sources of water in the whole country and estimated the future needs for water. It prepares plans for water supplies, directs the work and supervises the operation. In general, a special society is formed under the direction of the National Society for the development of a regional water supply.

In *Poland* the Institute for Water Supplies and Sewers is an interesting example of initiative on the part of the municipalities. Cities are members of this institute as well as specialists in water supply and sewerage. Its budget, which, from 41,000 zlotys in

1928, reached 500,000 zlotys in 1931, is made up of members' fees and the profits on its work. It acts as technical adviser to cities, and especially to small towns which ordinarily do not know to whom to apply for advice.

It has been so successful that at present it is asked to prepare complete plans for water-supply and sewerage systems.

In *England*, the Government set up, in 1923, an Advisory Committee on Water. Its members are judges, directors of large water systems and representatives of the Ministry of Health.

In the *Netherlands* the National Bureau for Water Supply *(Rijksbureau voor Drinkwatervoorziening)* was established in 1913. It is attached to the Ministry of Health (at present the Ministry of Labour, Commerce and Industry). Its primary duty is to advise the Central Government on all matters concerning water supply, such as the award of grants, the study of water-supply proposals for which grants are asked, the preparation of plans, the suppression of the construction and exploitation of subsidised water supplies, the preparation of legislation, etc.

In the second place, the Bureau places its services at the disposal of provincial and municipal authorities as well as private corporations for preliminary, technical and financial studies, the supervision and direction of construction, the maintenance and enlargement of water systems. The cost of this work is repaid to the Bureau ; it is only in exceptional circumstances that its work is done free of charge.

In addition, the Bureau organises popular lectures in rural districts, has a collection of lantern slides and films, etc. It carries on geological and hydrological investigations and collects and examines all data concerning water and soil (more than 18,000 reports on the boring of wells, 42,000 samples from such borings and 9,000 water analyses have been collected, and these numbers are increasing continually). The results of these investigations, as well as those on the various technical and scientific problems regarding the whole work and material of a water system, are published irregularly in the form of reports and communications.

In addition to the director, the staff of the Bureau includes eight engineers, a chief and associate chief (doctors of chemistry) of the chemical and bacteriological division (laboratory), a geologist, a hydrologist (mining engineer) and technical officials, chemists and subordinate administrative personnel.

The Government submits important problems regarding water supplies to a permanent commission — the Central Commission for Water Supply *(Centrale Commissie voor Drinkwatervoorziening)* — set up in 1913 in association with the *Rijksbureau*. The members of this Commission are jurists, members of Parliament, agronomists, hygienists, technicians and the director of the *Rijksbureau*.

The *schools of hygiene* of Athens, Budapest, London, Prague, Warsaw and Zagreb require mention in this chapter. In these schools are taught the principles underlying the construction of water supplies, as well as the elements of chemistry, bacteriology, biology and epidemiology. They act as centres of training for sanitary engineers and inspectors, as well as for minor health staff.

VI. Financial Assistance in order to improve Water Supplies in Rural Districts.

Special laws have been enacted in many countries for this purpose.

In *Italy*, in 1885, the Ministry of Finance fixed the interest on loans for water supplies at 4.5 per cent (funds derived from the *Cassa dei Depositi et Prestiti)*. Many loans were made, but this law was found to be inadequate ; and, in 1887, loans were granted at 3 per cent, with amortisation in thirty years for communes with populations of less than

10,000 inhabitants. In 1888, a law was enacted requiring all communes to furnish pure water to their inhabitants. A new law was enacted in 1900, prolonging until 1905 the period during which advantage could be taken of the law of 1887, fixing the period of amortisation at thirty-five years and raising to 20,000 the maximum population. In 1902, this maximum was raised to 50,000 ; in 1905, to 60,000 ; and in the same year the period of amortisation was extended to fifty years. In 1907, the limit of population was raised to 100,000. The law of 1911 provided for loans without interest to communes with populations of less than 50,000 and required the State to contribute 2 per cent of the interest on loans to communes with populations between 50,000 and 100,000. In 1919 and 1921, the maximum amounts of these loans was raised to 200,000 lire.

At present, the situation is as follows : grants may be made for sanitary improvements, especially in the poorer regions ; loans at low interest may be obtained for such a purpose, and these methods have resulted in loans totalling 1,500 millions lire in round numbers (plus 1,000 million for waterworks, 150 millions for sewers and 126 millions for other sanitary improvements). Special provisions are applied for water supplies in regions subject to bonification. The Italian policy is to :

(1) Grant loans at low rates for as long periods as possible ;

(2) Raise progressively the maximum limit of population of communes which benefit from these loans ;

(3) Make grants to the poorer regions, especially where malaria prevails.

Every rural commune in *France* may obtain financial assistance from the Government for a water system, in the form of grants or loans. A rural commune is one whose population is less than 5,000 and which pays less than 100,000 French francs in taxes per year. Such a commune may obtain a grant amounting to 50 per cent of the cost, and, in special cases, in reconstructed regions, 60 per cent to 90 per cent.

Larger communes do not receive grants, but may obtain loans. Grants are obtained from the national Budget and from taxes on racing and gambling.

The grants made by the Ministry of Agriculture for water supplies (from the *pari mutuel)* reached more than 48 million francs in 1927, 90 millions in 1928, and 154 millions in 1929. In addition to the sums obtained from the *pari mutuel*, the law of December 30th, 1928, provides one hundred millions yearly for the five-year period 1929-1933, and a law enacted in 1930 provides 125 millions more each year for four years for loans at low interest to communes. Half of the whole sum is for road-building, half for water supplies.

In addition to the funds accorded by the central authorities, the departments provide loans and grants and the *Caisse régionale de crédit agricole* makes loans for water supplies in agricultural regions, on the advice of the rural engineering service, at 3 per cent with amortisation in twenty-five years.

In *England*, the Ministry of Health assists the rural villages to obtain loans for water supplies. In 1914, these loans amounted to £233,000, while in 1925 they had increased to £426,000. The Government also gave financial assistance for water systems in order to relieve unemployment.

In *Belgium*, the State may furnish without interest one third of the amount necessary for the construction of waterworks, and the province may contribute from one-sixth to one-third also without interest.

In *Prussia*, the law requires State experts to prepare the plans for the poorer communes and permits the award of grants by the health authorities for domestic water supplies, and by the agricultural authorities when the proposed water supply would benefit agriculture.

On the proposal of the State Institute for Water Supply in *Bavaria*, grants may be awarded to communes, to co-operative societies and to limited liability companies for regional water supplies. These grants may reach 5 per cent to 6 per cent of the cost.

Loans are not given by the *Czechoslovak* authorities ; but, as a rule, the commune is permitted to ask for a grant, which is usually accorded. These grants amount to from 30 per cent of the cost (village supplies) to 50 per cent (regional water supplies). Grants are allowed by the Health Ministry (10 per cent to 15 per cent of the cost), the Ministry of Agriculture (15 per cent to 20 per cent), and the provincial authorities (10 per cent to 15 per cent). Cities do not receive grants. Plans must be submitted for approval to the authorities making the grants, and, if no grants are awarded, to the health departments and technical expert of the district. Larger grants are awarded for regional supplies, and the results of this policy appear in the figures given above.

Grants for the construction of wells and other individual water supplies are only given in *Sub-Carpathian Russia*, the least developed region in Czechoslovakia.

Even larger grants are given to cities, providing that the diameter of the water-mains is large enough to supply water to the villages and small towns in the neighbourhood of their mains.

In the rural districts of *Yugoslavia*, the central and provincial authorities bear all the expense of constructing water supplies, except for labour and transport, which may be furnished by the population. Such assistance is given even to the most developed districts, and also to cities. This assistance may take the form of grants or loans without interest, secured from the funds reserved for this purpose by the central or provincial authorities or the various institutes of hygiene. It is also used for the development of springs, wells and cisterns.

In the *Netherlands*, the State contributed to the payment of interest on loans contracted by communes in only two instances after the war, when the rate of interest was very high. The commonest form of financial assistance consists in State participation in the risk of operating a regional water service, by guaranteeing the payment of interest, and, if necessary, meeting the deficits by advances for which no charge is made. Ordinarily, the State guarantees two-thirds ; the province, the balance. In addition, the State bears the cost of the preparation of plans in respect of regional supplies.

Up to the present, the forms of assistance described above have sufficed to stimulate the communes in the Netherlands. To supply the poorer regions where water systems do not exist, grants will be necessary.

The system of water supplies being so important for the fire department, grants from the villages or insurance companies would be justified.

As a matter of fact, such grants are made in *Switzerland*, where insurance is administered by the State.

In *Poland*, the Public Mutual Insurance Institute grants loans to communes for the construction of wells. During the last six years, funds for this purpose amounted to 1,200,000 zlotys.

ANNEX 4.

LIST OF DOCUMENTS DISTRIBUTED TO THE CONFERENCE.

		Document No.
1.	Report of the Preparatory Committee on the Principles governing the Organisation of Medical Assistance, the Public Health Services and Sanitation in Rural Districts.	C.H.1045.
2.	Report by Professor J. Parisot, Professor of Hygiene and Preventive Medicine at the Faculty of Nancy, Rapporteur on Medical Assistance in Rural Districts.	Conf.Hyg.Rur./5.
3.	Report by Dr. A. Stampar, Rapporteur on the Organisation of Health Services in Rural Districts.	Conf.Hyg.Rur./1.
4.	Report by M. W. F. J. M. Krul, Director of the National Bureau for Water Supply, The Hague, Rapporteur on Water Supplies in Rural Districts.	Conf.Hyg.Rur./7.
5.	Report by Professor Bürger, of the Prussian National Institute for the Hygiene of Water, Soil and Air, Berlin, Rapporteur on the Disposal of Sewage in Rural Districts.	Conf.Hyg.Rur./25.
6.	Report by Mr. H. Ross Hooper, Civil Engineer, Chippenham, England, Rapporteur on Rural Housing.	Conf.Hyg.Rur./3.
7.	Report by M. Ludovic Bonamico, Chief Engineer of the Civil Engineering Department, Rome, Rapporteur on Bonifications in Rural Districts.	Conf.Hyg.Rur./6.
8.	"Mortality in Rural Districts in Europe", by M. K. Stouman.	C.H.1052.
9.	Report by Dr. H. C. Pelc, of the State Institute of Hygiene, Prague, on "Rural Hygiene" (English only).	Conf.Hyg.Rur./30.
10.	Note by Dr. Chodzko on : " *Les progrès de la Tuberculose dans le milieu rural* " (French only).	Conf.Hyg.Rur./33.
11.	Note by Professor Derlitzki, Director of the Experimental Institute for the Study of Rural Labour, Pomritz (Saxony), on the Hygiene of Rural Labour.	Conf.Hyg.Rur./37.
12.	The *Medico Condotto* in the Health Organisation of Italy, by Dr. A. Lutrario.	C.H.958.

		Document No.
13.	Memorandum prepared by the Health Section on the Organisation of Effective Medical Assistance in Rural Districts.	C.H.959.
14.	Report on the Organisation of Assistance and Health Inspection in the Rural Districts of Italy, by Dr. Dino Rio, Head of the Medical Assistance Section, Public Health Department, Italy.	C.H.960.
15.	Note on Medical Assistance in Rural Districts in France.	C.H.963.
16.	Memorandum on Medical Assistance in Rural Districts in Great Britain, by Mr. Michael Heseltine, Assistant Secretary, Ministry of Health, England.	C.H.964.
17.	Note on Medical Assistance for Rural Populations in Germany, by Dr. Walther Miemietz, Wriesen.	C.H.965.
18.	" Methods employed in Germany for the Provision of Medical Assistance in Rural Districts ", by M. Karl Unger, Director of the National Union of German Rural Health Insurance Funds, Perloberg.	C.H.966.
19.	Report by Dr. A. Shearer, Scotland, on " Medical Service in the Highlands and Islands of Scotland " (English only).	Conf.Hyg.Rur./28.
20.	Report by Dr. Vittorio Puntoni, Rome, Representative of the International Institute of Agriculture of the Preparatory Committee : " Anti-Rabic Dispensaries in Italy, a New Organisation for Rural Health Assistance ".	Conf.Hyg.Rur./9.
21.	Report by Professor Ricardo Jorge on Medical Assistance in Portugal.	Conf.Hyg.Rur./12.
22.	Report by Dr. Kessiakoff, Director of the Bulgarian Health Service, on " The Organisation of the Rural Medical Service in Bulgaria ".	Conf.Hyg.Rur./16.
23.	List of Members of the First Committee.	Conf.Hyg.Rur./20 (1).
24.	Report of the First Committee.	Conf.Hyg.Rur./27.
25.	Note by Dr. Chodzko, Director of the School of Hygiene, Warsaw, on Rural Health and Social Assistance Centres and the Effective Sanitation of the Countryside.	C.H.925.
26.	A Scheme for the Organisation of Rural Health Centres, prepared for the Budapest Conference on Rural Health Centres.	C.H.933.
27.	Note by the Health Section on Health Centres.	C.H.934.
28.	Note on Health Centres in France.	C.H.935.
29.	Note on Rural Health Centres in the Netherlands, by Dr. J. H. Tuntler, Inspector of Infant Health Services and Tuberculosis, Groningen.	C.H.936.

		Document No.
30.	Preliminary Draft of the Czechoslovak Committee for *"la Standardisation de l'équipement des dispensaires"* (French only).	C.H.938.
31.	"Health Centres in Czechoslovakia", by Dr. H. Pelc (English only).	C.H.939.
32.	"The Public Health Nursing Service of a Health Centre", by Miss M. Stellar, Head of the Health Nursing Service, Institute of Hygiene, Budapest (English only).	C.H.940.
33.	"Activities of a Health Centre in the Field of Sanitary Engineering", by M. Milivoj Petrik, Chief of the Division of Sanitary Engineering, Institute of Hygiene, Zagreb (English only).	CH.942.
34.	"Rural Health Centres in Hungary", by Dr. Bela Johan, Director of the State Institute of Hygiene, Budapest (English only).	C.H.941.
35.	Note prepared by the Health Section for the Second Session of the Committee on Rural Health Centres (Geneva, April 28th, 1931).	C.H. 979.
36.	Report on Rural Health Centres, by Dr. Bela Johan, Director of the State Institute of Hygiene, Budapest.	C.H.980.
37.	Report on the Most Effective Methods for organising Health Services in Rural Districts, by Dr. J. H. Tuntler, Inspector of Infant Health Services and Tuberculosis, Groningen, Netherlands.	C.H.983.
38.	Report on the Participation of Provident Funds and Insurance Institutions in the Organisation of Health Services in Rural Districts, by M. P. Vimeux, Director-General of the National Agricultural Provident Union (France).	C.H.991.
39.	Report on the Organisation and Duties of a Rural Health Service, by Dr. G. Seiffert, Counsellor of the Bavarian Ministry of the Interior, Munich.	C.H.992.
40.	Report on the General Principles that should guide the Realisation of Health Organisation in Rural Districts, by Professor Jacques Parisot, Professor of Hygiene and Preventive Medicine, Nancy.	C.H.993.
41.	Report on Health Organisation in Rural Districts in Denmark, by Dr. A. Metz, County Medical Officer, Holbaek, Denmark.	C.H.994.
42.	Report on the Organisation of Health Services in Italy, with Special Reference to Rural Districts, by Dr. Antonio Labranca, Inspector-General of Health, Rome.	Conf.Hyg. Rur./2.

		Document No.
43.	Statement by Dr. A. Ismaïl, Director-General of Public Health, Ankara, on "The Present State of Rural Health Organisation in Turkey".	Conf.Hyg.Rur./24.
44.	"*La coopération agricole tchécoslovaque*", by Dr. Ladislav F. Dvorak (French only).	
45.	"*Considérations sur l'état sanitaire de la population tchécoslovaque au cours des années* 1918-1928" (French only).	
46.	"*Grundlagen und Gliederung der ländlichen Gesundheitspflege*", by Hermann Lothring, Prague.	
47.	Report by Dr. N. M. J. Jitta on "*L'Hygiène rurale dans les Pays-Bas*" (French only).	Conf.Hyg.Rur./32.
48.	Report on Rural Hygiene in Poland, submitted by the Polish delegation.	Conf.Hyg.Rur./36.
49.	Pamphlet by the Union of Yugoslav Health Co-operative Associations : "Principles of Rural Hygiene and Health Co-operatives" (English only).	Conf.Hyg.Rur./14.
50.	Report by Dr. S. Tubiasz, Ministerial Counsellor at the Ministry of the Interior, Public Health Service, Warsaw, on "Health Centres in Poland".	Conf.Hyg.Rur./21.
51.	List of Members of the Second Committee.	Conf.Hyg.Rur./22 (1).
52.	Report of the Second Committee.	Conf.Hyg.Rur./31.
53.	Report on the Disposal of Liquid Sewage and Refuse in Rural Districts, by M. Milivoj Petrik, Chief Sanitary Engineer at the Institute of Hygiene, Zagreb.	C.H.981.
54.	Statement on Housing in Rural Districts considered from the Standpoint of Agricultural Workers, by Mr. J. F. Duncan, Secretary-General of the Scottish Farm Servants' Union.	C.H.985.
55.	Report on Water Supplies in Rural Districts, by M. Milivoj Petrik, Chief Sanitary Engineer at the Institute of Hygiene, Zagreb.	C.H.988.
56.	Report on Water Supplies in Rural Districts, by M. W. F. J. M. Krul, Director of the National Bureau for Water Supplies, The Hague.	C.H.989.
57.	The Organisation of the *Génie rural* in France, by M. M. Vignerot, Chief Engineer of the Rural Engineering Department of the Ministry of Agriculture, Paris.	C.H.995.
58.	Report on the Housing Problem in Rural Districts, by M. Milivoj Petrik, Chief Engineer of the Sanitary Engineering Division, Institute of Hygiene, Zagreb.	C.H.997.

		Document No.
59.	Report on Rural Sanitation in Germany, by Dr. Gotschlich, Director of the Institute of Hygiene of the University of Heidelberg.	C.H.1017.
60.	Report submitted by the International Labour Office on the Housing of Agricultural Workers.	C.H.1020.
61.	"Rural Sanitation in Poland", by M. A. Sziolis, Chief Engineer, State School of Hygiene, Warsaw (English only).	C.H.1025.
62.	"Land Improvement in Belgium", by M. J. Onghena, Chief Engineer of Boerenbond Technical Services, Belgium.	C.H.1026.
63.	"The general Principles of Rural Sanitation in England", by Mr. H. Ross Hooper, Civil Engineer, Chippenham, England (English only).	C.H.1027.
64.	"Bonifications in Rural Districts", by M. M. Petrik, Chief of the Division of Sanitary Engineering, Institute of Hygiene, Zagreb.	C.H.1028.
65.	" Housing Conditions in the Irish Free State ", by Mr. Nicholas O'Dwyer, Chief Engineer of the Sanitary Engineering Department, Dublin (English only).	C.H.1029.
66.	"Sanitation in Rural Districts in Germany", by Dr. Bernhard Bürger, Director of the Prussian National Institute for the Hygiene of Water, Soil and Air, Berlin.	C.H.1030.
67.	"Rural Sanitation and the New Irrigation System in Spain", by M. Julio Jordana, Engineer of the Agricultural Service of the Hydrographic Confederation of the Ebro, Saragossa.	C.H.1032.
68.	Report on Bonifications, submitted by the International Institute of Agriculture, Rome.	Conf.Hyg.Rur./10.
69.	Report on Housing, submitted by the International Institute of Agriculture, Rome.	Conf.Hyg.Rur./11.
70.	Report on Rural Housing in England and Wales, by Mr. H. Ross Hooper, Civil Engineer, Chippenham, England.	Conf.Hyg.Rur./4.
71.	" Sanitary and Health Services in Rural Districts in Italy " and the "*Bonifica Integrale*" (published by the Italian Delegation to the Conference).	Conf.Hyg.Rur./13
72.	Report by Dr. M. H. van der Kaa, Inspector-General of Housing in Holland, on "*L'amélioration des habitations rurales*" (French only).	Conf.Hyg.Rur./19.
73.	Report by M. Juan Lazaro-Urra, Professor at the School of Sanitary Engineering, Madrid : "*Approvisionnement des petites agglomérations en eau de pluie*" (French only).	Conf.Hyg.Rur.23/.

		Document No.
74.	Report by Dr. Zelenka on Sanitation and the Improvement of Rural Housing in Czechoslovakia.	Conf.Hyg.Rur./35.
75.	List of Members of the Third Committee.	Conf.Hyg.Rur./15 (2).
76.	Report of the Third Committee.	Conf.Hyg.Rur./29.
77.	Draft resolution on the Constitution of a Fourth Committee on "International Studies in Rural Hygiene".	Conf.Hyg.Rur./18.
78.	Report by the Chairman of the Meeting of Directors of Schools of Hygiene (Professor Léon Bernard).	Conf.Hyg.Rur./38.
79.	Report of the Conference on Rural Health Centres held at Budapest, October 27th to 31st, 1930.	C.H.947.
80.	Conference on Rural Health Centres, Budapest, October 27th to 31st, 1930 : General Outline of the Programme for the Division of Sanitary Engineering, as planned for the Athens Centre of Hygiene, by Mr. Daniel E. Wright.	C.H.937.
81.	Report of the Fourth Committee (Resolutions).	Conf.Hyg.Rur./34.
82.	Note concerning the Spanish Government's Proposal for convening a European Conference on Rural Hygiene.	C.H.912.
83.	Letter by the Secretary-General, with Annexes C.543 and C.535.1930.III, concerning the Spanish Government's Proposal with regard to convening a European Conference on Rural Hygiene.	C.H.917.
84.	Report of the Sub-Committee for the Study of the Spanish Government's Proposal.	C.H.926.
85.	Circular Letter to non-European Governments informing them of the Date of the Conference and inviting them to send Observers.	C.L.301 (*a*). 1930, and Annex.
86.	Circular Letter to European Governments informing them of the Date of the Conference and inviting them to send delegates.	C.L.301. 1930, and Annex.
87.	Memorandum prepared for the Second Session of the Preparatory Committee, for the European Conference on Rural Hygiene.	C.H.948.
88.	Report of the Second Session of the Preparatory Committee, Paris, December 8th and 9th, 1930.	C.H.952.
89.	Report to the Council concerning the Spanish Government's proposal, by the Representative of the Irish Free State.	C.584. 1930. III.

		Document No.
90.	Report to the Council by the Representative of the Irish Free State concerning the Preparatory Committee's Suggestions for the Appointment on the Committee of French and English Experts.	C.697. 1930. III.
91.	Circular Letter sent by the Secretary-General to European Governments informing them that the Opening of the Conference was postponed to June 29th.	C.L.9. 1931. III.
92.	Circular Letter sent by the Secretary-General to non-European Governments informing them that the Opening of the Conference was postponed to June 29th.	C.L.9 (*a*). 1931. III.
93.	Report on the Third Session of the Preparatory Committee, held at Geneva, May 1st and 2nd, 1931.	C.H.1037.
94.	Correspondence with the Hungarian Health Authorities concerning the Continuation of the Study of Rural Health Centres in connection with the Opening of a Rural Health Centre at Godollo and a School of Public Health Nursing at Budapest.	C.H.907.
95.	List of Documents placed at the Disposal of the Conference (Complete Bibliography).	Conf.Hyg.Rur./8.
96.	List of Delegates and Observers at the European Conference on Rural Hygiene (Geneva, June 29th).	Conf.Hyg.Rur./17.
97.	Minutes of the First Meeting of the Conference (June 29th, 1931).	Conf.Hyg.Rur./P.V.1.
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