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Page

LEAGUE OF NATIONS

VETERINARY QUESTIONS

-	General Report of the Sub-Committee of Experts.																I
1.	General Report of the out committee of the																18
2.	Report of the Economic Committee to the Council	•	•	•	•	•	•	•	٠	•	•	•	•	•	*	•	10

1. GENERAL REPORT OF THE SUB-COMMITTEE OF EXPERTS ON VETERINARY QUESTIONS.

CONTENTS.

		CONTENT	· ·	Page			
1. 2. 3.	History of the Question						
	I. II.	Organisation of the Veterinary Health S Veterinary Health Reports		5 6			
4. Additional Forms of International Veterinary Co-operation which may improv Present Position:							
	I.	Urgent Information Service:					
		 (a) Publication of a "Latest News" (b) Information by Telegraph 	Bulletin	6 7			
	ÍI.		cion:				
	*	and Laboratories of Another Cou	ers of One Country to the Institutions	8			
		Officials	ual Missions: Exchange of Veterinary erinary Officials in the Territory of	8			
		Another Country: Closer Contact of the Countries concerned	between the Veterinary Authorities	9			
5. Sanitary Veterinary Measures applied and Measures applicable to the Import, Example and Transit of Animals:							
	$(a) \\ (b)$	The Two Systems applied in Different C Bilateral Veterinary Conventions	in the second	10 11			
	(<i>c</i>)	nitary Inspection on Export: Joint imals by Sea	II				
	(<i>d</i>)	Disease.		13			
6. 7.	Transit (of Animals, Steps to reduce the Risks ari Export and Transit of Meat and Meat	sing from Transit	14			
/•	(<i>a</i>)	Meat		15			
	(b)	Meat Preparations.		16 16			
	$\begin{pmatrix} c \\ d \end{pmatrix}$	Certificates and Other Guarantees . Transit		16			
8.	Internat	ional Trade: Animal Products (Meat ex	cepted):				
	$(a) \\ (b)$	- · · · · ·		16 17			
S.d.1	N. 1.425 (F.) 1	.125 (A.) 11/30. Imp. Kundig.	Series of League of Nations Publicatio	ons			
			II. ECONOMIC AND FINANCIA	L			
			1930. II. 49.				

I. HISTORY OF THE QUESTION.

In one of its resolutions, the 1927 World Economic Conference noted that "diseases which affect plants and animals diminish agricultural production, and should be scientifically combated on the basis of an international plan and international agreements ".

The Conference, moreover, pointed out that "international agreements which establish sanitary supervision, if they provide the contracting countries with adequate guarantees, should, without infringing sovereign rights, remove from the regulations any suspicion of disguised protection and should add to the stability of trade relations, which is one of the conditions of successful production '

At the International Conference for the Abolition of Import and Export Prohibitions and Restrictions, which met at Geneva from October 17th to November 8th, 1927, the countries which exported live-stock products insisted on the adoption of the following declaration, which was included in the Final Act:

" The Conference.

"Approving the resolutions of the International Economic Conference held at Geneva in May 1927 relative to measures for the prevention of diseases of plants and animals by means of international agreements;

"Considering that certain of these agreements—in particular, the Berne Convention of 1881 against phylloxera—have led to successful joint action with favourable results;

"Considering that measures against epizootics and epiphyties should have in view only the protection of animals and plants or of the public health endangered by the consumption of harmful meat or plants, and should in no case be imposed or enforced as a means of hampering or discriminating against the trade of countries exporting products of the stock-breeding

industry or agriculture; and "Considering that it is desirable to adopt only measures of proved efficacy and to make

their severity proportionate to the risks of infection anticipated; "Recommends the Council of the League of Nations to undertake, with as little delay as possible and in the manner which appears to it most expedient, the necessary investigations, consultations and enquiries with a view to summoning a conference or conferences of experts, with special knowledge of all questions relating to the prevention of diseases of animals and plants, which should be invited to propose to the various Governments joint action that would be effective against the evils that all these Governments desire to combat, and at the same time would have due regard to the sovereign rights of States and the interests of international trade.

'The Conference is aware that efforts have been made by certain countries to arrive at the desired results by means of bilateral agreements; it recommends that the bodies to which the Council entrusts the investigations described above should examine the provisions of such agreements and observe their effects.

At its meeting on December 6th, 1927, the Council of the League asked the Economic Committee to study the problems referred to in this declaration.

At its meeting in the same month, the Economic Committee considered means of giving effect to this request.

As it stated in its report to the Council on the work of the above session, the Committee was of opinion that it would be expedient, before anything else was done, to determine the possibilities and to establish a framework for future international action, with the assistance of experts chosen in about equal proportions from countries in favour of such agreements and countries which had hitherto opposed them. It also decided that the question of the protection of animals and that of protecting plants should be dealt with *separately*, and that the first enquiry to be undertaken should be in connection with animals, in view of the number of countries specially interested in this question and its importance in international trade. Moreover, the International Agricultural Institute at Rome had already proposed an international conference with a view to joint inter-national action in the matter of phytopathology. This conference met in April 1929.

In conformity with these decisions of the Economic Committee, the following experts were invited to constitute a Sub-Committee on veterinary matters;

Dr. Bürgi, Professor, Director of the Veterinary Office of the Federal Department of

Public Economy at Berne (Switzerland); M. J. HAMR, Director of the Veterinary Section in the Ministry of Agriculture at Prague (Czechoslovakia)

Dr. C. O. JENSEN, Head of the State Veterinary Service, Copenhagen (Denmark);

J. NOWAK, Professor of Veterinary Medicine at the Cracow Faculty of Medicine M.

(Poland);
 M. C. PETROVITCH, Inspector in the Ministry of Agriculture at Belgrade (Yugoslavia);
 M. VALLÉE, Professor, Director of the International Research Laboratory at Alfort

(France); Dr. WEHRLE, Director of the Veterinary Department in the "Reichsgesundheitsamt", Berlin (Germany)

M. LECLAINCHE, Professor, Director of the International Office for Contagious Diseases of Animals and Plants.

In a letter of invitation, the subject of the experts' discussions was defined as follows:

"The aim of the Committee of Experts is to consider what guarantees might be given by countries that export live-stock and what facilities might be granted by importing countries on the basis of these guarantees, and to determine in general the best methods for applying veterinary supervision, taking into account the economic interests of the exporting countries and without prejudice to the interests of countries desiring to take precautions against diseases in animals.

After the first session of the Sub-Committee, which was held from January 30th to February 2nd, 1928, the Economic Committee deemed it expedient to add an Austrian and an Italian expert, in view of the central position of Austria as regards the trade in and transport of animals and the special interest shown by Italy in the success of the work entrusted to the Sub-Committee.

In accordance with this decision, the following experts were invited to join the Sub-Committee :

Dr. KASPER, Counsellor in the Ministry of Agriculture and Forests at Vienna (Austria); Dr. Comm. C. BISANTI, Head of the Veterinary Service in the Ministry of the Interior at Rome (Italy).

In view of the important interests of Latin-America in the trade in live-stock and meat, the Economic Committee also decided to invite a South American expert to participate in the Sub-Committee's work on this subject.

At its second session from June 20th to June 23rd, 1928, the Sub-Committee of Experts had the assistance of Professor P. de Figueiredo Parreiras-Horta, Director of the Pastoral Industries Department of the Brazilian Ministry of Agriculture, Rio de Janeiro. In addition, the British Government, in compliance with the Economic Committee's request, sent a British expert, and Sir Ralph Jackson, Head of the Veterinary Department in the Ministry of Agriculture and Fisheries, London, was invited to join the experts at their second session. In compliance with the Sub-Committee's request for special information from technical

In compliance with the Sub-Committee's request for special information from technical experts in certain large meat-exporting countries, with a view to conducting a full enquiry into the inspection of meat intended for export, the Economic Committee secured for the Sub-Committee at its *third session from May 29th to June 5th*, 1929, the assistance of:

M. Dionysio MENDY, formerly Director of the Montevideo Veterinary School;

Lt.-Col. H. A. REID (New Zealand), attached to the office of the New Žealand Government in London.

Dr. Juan Richelet, Representative of the Ministry of Agriculture at the Argentine Embassy in London, who had also been invited to attend the third session of the experts as technical expert in the matter of the inspection of meat, was unable to attend that session.

At the first meeting, Dr. Bürgi was elected Chairman of the Sub-Committee.

The Sub-Committee of Experts appointed M. Vallée Rapporteur, for the first session and Vice-Chairman and Rapporteur for the subsequent sessions.

During the three first sessions the Sub-Committee has had the assistance of:

Dr. FISCHOEDER, Director in the Ministry of Agriculture, Warsaw; and, during its four sessions, the advice of

Dr. MEESSEMEIER, Head of the Veterinary Service in the Prussian Ministry of Agriculture at Berlin, who had accompanied the experts, M. Nowak and M. Wehrle respectively.

At the fourth session of the Sub-Committee, held from October 20th to 26th, 1930, Professor Jensen and Professor Parreiras-Horta were absent, detained by urgent work, M. Voracek, attended as successor to M. Hamr, and M. Markowski, assistant to Professor Nowak.

It devoted all its efforts to the thorough discussion and putting into final form of the present general report. The Sub-Committee endeavoured to deal with the question referred to it for discussion in all its aspects, particularly the case of animal products, to which it had not yet given such full consideration.

The meeting was attended by M. Schüller, member of the Economic Committee of the League of Nations, whose opinions proved, from various points of view, extremely valuable to the experts.

2. General Aspect of the Problem.

The enquiry entrusted to the experts, as clearly defined in the letter of invitation referred to above, bears on two questions which the Economic Committee held to be inseparable—a ceaseless and increasingly efficient campaign against diseases of animals, and improvements in the international trade in animals and animal products.

It is obviously the duty of all countries to join in the campaign against animal diseases. Every country should, moreover, realise that, if it conducts a strong campaign by all the means which science and organisation place at its disposal against the outbreak and spread of diseases among animals, it is acting, not merely in its own interests, but in the interests of all other countries. This conviction must become stronger if we consider the close relationship which exists between the health of animals and that of human beings. The first item, therefore, in every programme should be the improvement of health conditions by every possible means, including international action. The report of the Economic Consultative Committee on the work of its second session (1929) contains the following observation:

"The Economic Committee had rightly based its action on the principle that a prerequisite of any agreement concerning veterinary questions is that each country shall take effective measures against diseases."

The Sub-Committee entirely agrees.

In connection with this problem, which is mainly a matter for veterinary science, complaints, whether justified or not, have for nearly a hundred years been made regarding the obstacles placed in the way of the international trade in live-stock and animal products on sanitary grounds (legitimate or otherwise). It is felt that health considerations and commercial policy are not always kept absolutely separate, and that prohibitions on sanitary grounds are sometimes applied in such a way as to constitute a disguised restriction on international trade. This may give rise to some dissatisfaction. If there is an impression that sanitary or health measures applied sometimes in a way contrary to the intentions of their promoters, or are being utilised for economic purposes, reciprocal distrust and possible conflict may arise.

For more than fifty years, therefore, this problem has been engaging the attention of Governments and interested circles. The most highly qualified representatives of the veterinary police have, at various meetings and at international conferences, admitted that some international agreement is necessary on these matters. The application of such an agreement will, however, be difficult owing to the particular situation of each country. In organising the campaign against diseases in animals, account must, it is true, be taken of the geographical situation of each country and of the special conditions which govern the herding and transport of live-stock in conformity with the needs of production—i.e., stockbreeding and industry on the one hand, and consumption on the other.

But all countries are bound, when applying sanitary measures, to have the two following considerations in view—while they must protect themselves, they must not transmit disease to the foreign countries with which they trade. In spite of the recognised necessity of adapting health protection measures to national requirements, these principles make it absolutely necessary to observe the essential rules of veterinary hygiene and veterinary inspection, the importance of which has been endorsed by science.

In conformity with these principles, an international agreement was drawn up in 1924 for the creation in Paris of an International Office for Contagious Diseases of Animals, to be responsible to a large extent for ensuring the execution of the first item in the programme submitted to the experts—namely, the scientific campaign against diseases in animals—a campaign involving special studies on each disease and highly technical research that can only be conducted by qualified specialists.

Though relying ¹ as regards this more scientific and technical aspect of the problem, on the help of the International Office for Contagious Diseases of Animals, the Director of which is a member of the Sub-Committee, the experts endeavoured, with regard to other aspects of the problem, to find a middle course between legitimate protection against disease and the necessity of facilitating international trade in live-stock and animal products.

3. Organisation of the Veterinary Health Services and Publication of Veterinary Health Reports.

At its first discussions, the Sub-Committee unanimously agreed on the following principle: mutual confidence in the veterinary organisations of the various countries—particularly in the case of countries that wish to import live-stock and animal products—is absolutely essential for the success of the work of the experts. Such confidence should be founded on absolute certitude that the various countries, and particularly exporting countries, possess a well-organised veterinary service and that the veterinary rules and regulations are faithfully observed. In addition, it is very important, both from a national and international point of view, that Governments should be known to be thoroughly well informed, by responsible technical services, regarding the situation in their country. The experts attached so great an importance to this last point that they laid down the following principle:

"No facilities can be granted as between exporting and importing countries in the matter of trading in animals and animal products unless the exact sanitary situation in the exporting countries is officially known and scrupulously recorded at regular intervals."

¹ See the report of the Sub-Committee on its first session (February 1928), as set out in document C.525.M.155. 1928.II (E.432).

This requirement may be met by the publication of complete, accurate and honest health bulletins appearing with absolute regularity.

At their first session, the experts agreed to the following principles, which they think should form the basis of all future arrangements on the questions submitted to them:

I. It is indispensable that every country should possess an official veterinary organisation, capable of exercising effective sanitary supervision over the whole territory, divided into definite districts. The whole organisation should be under the authority of a responsible technical veterinary head, acting under the direct orders of the competent Minister of State. It may, however, be admitted that, in exceptional cases, an organisation under the authority of a professional veterinary surgeon, indirectly responsible to the competent Minister, can operate satisfactorily. Nevertheless, the necessary development of veterinary services and the necessarily more formal character of their technical organisation demand that the experts' instructions should be complied with. All organisations which are not based on the above-mentioned requirements must be considered *provisional*.

2. It is indispensable that each country should publish regularly and without delay a health report prepared on the standard lines adopted by the Committee of the International Office for Contagious Diseases of Animals.

After laying down these principles as the basis for their future work, the experts felt that it was necessary to collect information on the methods at present followed in the more important countries in the trade in animals. They therefore prepared a questionnaire¹ concerning the organisation of the various veterinary services and the means these services possessed to collect sanitary information and communicate this information to all concerned.

At its second session, the Sub-Committee considered replies from sixteen countries: Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, France, Germany, Great Britain, Hungary, India, Italy, Norway, Poland, Sweden, Switzerland, Yugoslavia.

Furthermore, replies have since been received from thirteen other countries: Australia, Brazil, Canada, China, Colombia, Mexico, Netherlands, Netherlands Indies, Roumania, Turkey, United States of America, Union of Soviet Socialist Republics and Uruguay. On many important points the experts consider that this information is sufficient to enable them to give a definite opinion as to the ideal method of organising veterinary services and issuing bulletins of information.

I. Organisation of Veterinary Health Services.

The Sub-Committee of Experts again points out the imperative necessity of organising, in each country, a veterinary service under the authority of a veterinary expert directly responsible to the competent Minister of State.

It recognises that such an organisation exists in most of the countries consulted. It feels bound, however, to draw special attention to the fact that certain countries, even in Europe, have not yet entirely satisfied this condition, on which the attainment of the Economic Committee's aims so largely depends.

With regard to the details of the organisation of the veterinary services, the experts are of opinion that it need merely be pointed out that the only veterinary services which can be recognised as *regularly organised* are those which consist of definite sanitary districts under the supervision of a technical veterinary head, responsible to his Minister.

In the countries considered, there are very substantial differences as regards the proportion between the number of Government veterinary officials and, on the one hand, the area of cultivated land and, on the other hand, the number of head of cattle. The disparity between the number of veterinary officials and the area of land under cultivation is much more marked than that between the number of officials and the number of head of cattle. Accordingly, the number and the distribution of veterinary surgeons should be such as to ensure the effective and rapid inspection of all domestic animals.

The experts, however, felt bound to lay down certain important principles concerning the allocation of duties between Government veterinary officials and veterinary surgeons in private practice.

I. The Sub-Committee of Experts desires to make it clear that only veterinary surgeons who are employed and paid by the Government can be regarded as Government veterinary officials. It is of opinion that veterinary surgeons in private practice may, in exceptional cases, be entrusted with official health duties, but that in such cases the Government becomes responsible for these veterinary agents.

2. Government veterinary officials, or those who may be appointed to perform certain duties, should in all cases hold a State diploma in veterinary medicine and surgery.

3. Every country should possess a veterinary health organisation which will enable it to make a declaration regarding the origin and so far as it is scientifically known, the state of health of animals intended for export.

Certificates of origin and health certificates should be signed or countersigned by a Government veterinary official, and must in all cases involve the responsibility of the Government issuing them.

4. Veterinary inspection at frontiers should be carried out only by veterinary officials who are permanent or who are appointed by the Government.

5. The Sub-Committee of Experts, after having examined the question, is of opinion:

(a) That it is to be recommended that the inspection of *meat intended for sale or public consumption* should be entrusted, as a general rule, to persons holding veterinary diplomas and placed under the supervision of the Government technical veterinary services;

¹ See Annex to the report of the Sub-Committee on its first session.

(b) That, as regards meat and meat products *intended for export*, veterinary health inspection must be carried out by veterinary surgeons in the Government services or appointed by Government for that purpose.

6. The Sub-Committee of Experts, having discussed the question and recognising the importance of the disinfection of all means of transport used for the transport of animals and animal products, notes with satisfaction that nearly all the countries which have sent in answers to the questionnaire make such disinfection compulsory after each journey. The Sub-Committee considers that disinfection of this kind should be carried out under the supervision of Government veterinary officials.

II. Veterinary Health Reports.

In general, the experts unanimously agreed that the only sanitary documents (reports, notices, certificates) which can be regarded as trustworthy—for importing countries—are those issued by countries which possess a regularly organised veterinary service (see I).

With regard to the regular publication of veterinary health bulletins, the experts are of opinion, as stated above, that these documents should comply with the rules recently laid down by the International Office for Contagious Diseases of Animals, and should be in the form advocated by that office.

The International Office for Contagious Diseases of Animals has proposed the following conditions for the publication of the health bulletins which should be adopted in the various countries:

I. The health bulletins should be published on the 1st and 15th of each month, and give all information concerning the previous fortnight.

2. They should be exchanged between the highest veterinary authorities, without recourse to the diplomatic channel.

3. They should give all statistical information regarding the following diseases: cattle plague, foot-and-mouth disease, contagious peripneumonia, anthrax fever, sheep-pox, rabies, glanders, dourine, swine fever.

4. Each country may also give statistical or other information regarding other diseases.

The International Office for Contagious Diseases of Animals has considered the form in which bulletins should be drawn up with a view to presenting in a uniform manner the information thus collected, and is of opinion that the bulletins should certainly indicate the health situation on the date of publication—*i.e.*, the number and names of the major territorial divisions (provinces, departments, districts); the number of communes at present infected, and the number of communes and farms newly infected during the period under consideration.

and farms newly infected during the period under consideration. After discussion, the Sub-Committee of Experts approved the above stipulations. The experts also recommend the standardisation of these bulletins on the basis of a unified nomenclature of diseases.

The experts are of opinion that the model uniform veterinary health bulletin drawn up by the office should be accepted by all the countries concerned, and should be inserted in all future veterinary conventions.

4. Additional Forms of International Veterinary Co-operation which may improve the Present Position.

I. Urgent Information Service.

(a) Publication of a "Latest News" Bulletin.

The creation of the International Office for Contagious Diseases of Animals, which has been referred to above and to which more than forty States have adhered, already constitutes a most valuable form of permanent international co-operation, particularly as regards the scientific and technical aspects of the problem. In addition, the participating States are, according to the statutes of the office, bound to send it their health bulletins and notify it telegraphically of the apparition of any particularly serious outbreak of contagious disease among animals.

As regards the collection of this veterinary information supplied by the various countries and its transmission to the participating Governments, no one can deny the importance of the office's work. The service will undoubtedly improve still further in future, and the greatest attention should, therefore, continue to be devoted to it.

All veterinary administrations appreciate at their full value the bulletins of the International Office, which they receive regularly; but these bulletins are bound to arrive late, and cannot, therefore, serve as a warning to the administrations of the various countries in urgent cases. Consequently, the information service of the International Office is mainly of statistical and scientific value and cannot, under present circumstances, be utilised for urgent communications of practical value in stamping out epizootic diseases.

Under the resolutions already passed by the International Veterinary Conferences, held in 1921 at Vienna and at Kovno, which were confirmed by the 1924 Assembly of the International Office, countries usually exchange immediately *inter se* the bulletins they are also bound to communicate to the office. Veterinary conventions which have been concluded between various countries contain the same stipulation. Certain countries send their communications to the authorities of the other countries with absolute regularity, but in many cases notification is received so late that it is of no value except from a statistical standpoint. Several of the experts pointed out that, in this way, numerous communications are only received four months after the end of the period to which they refer.

It has, moreover, been stated that one of the causes of delay is that these communications are sometimes made through diplomatic channels instead of being sent direct by the competent departments to the departments concerned in the other country. The experts agree that communications should be addressed direct from the competent ministry to the ministry concerned in the other country, and should not pass through diplomatic channels.

In addition to the necessity of accelerating in future the exchange between States of veterinary health bulletins which, according to the conditions laid down by the International Office for Contagious Diseases of Animals, should be issued on the 1st and 15th of each month, it was thought that, even if these dates were strictly adhered to, the bulletins would often appear too late to be of immediate use as health information. The data and information they contain are often several days or even several weeks late. Consideration should therefore be given to the possibility of all countries publishing, at least bi-weekly, a communiqué containing the latest information. Certain countries have already recognised this necessity; they even publish weekly a news bulletin which makes it possible to follow the course of contagious diseases of animals almost from day to day.

The experts are of opinion that, before recommending the universal adoption of a system of urgent information, they should ask for the assistance of the International Office for Contagious Diseases of Animals, which is competent to investigate such a question.

(b) Information by Telegraph.

When, however, certain particularly serious infectious diseases make their appearance, it is obvious that a warning to the authorities of other countries which may be exposed to danger should be sent by means more rapid than a printed bulletin which, however speedily it may be printed, could hardly reach the authorities concerned in less than a fortnight.

Consequently, most veterinary conventions concluded between European countries contain apart from minor variations—the following clauses:

I. If cattle plague or contagious lemopneumonia in cattle should break out in the territory of one of the contracting parties, the Government of the other party shall be informed of the outbreak and extent of the disease direct by *telegraph*. (In addition to the above diseases, some veterinary conventions call for notification by telegraph in the case of foot-and-mouth disease and dourine.)

2. As regards an outbreak of contagious disease among animals in the administrative districts of the frontier zones, the authorities shall notify each other immediately and direct.

The experts are of opinion that, in the general interests of veterinary health, a determined effort should at once be made to establish a proper international service supplying information by telegraph, or to help to improve such a service where it already exists. This service should not be limited to the countries which have concluded, or may conclude, veterinary conventions and it should take prompt and decisive action.

The experts consider that the obligations of the various administrations should be limited to what is strictly necessary—i.e., should be restricted to certain particularly serious diseases. The communications should be brief and sent in code. It would seem that a twofold series of communications should be contemplated:

I. Direct communications between the central offices of the services concerned—i.e., between the capitals of the different countries. The communiqués should refer only to the first appearance in the country of the following diseases: cattle plague, swine plague, fowl plague, foot-and-mouth disease, contagious peripneumonia, rabies and dourine.

2. Direct communications from veterinary authorities of first instances established at the frontier to the corresponding authorities in the adjacent State.

Obviously, need for urgent action is greatest between adjacent districts. These communications should therefore refer to all the more important contagious diseases—i.e., those already mentioned above and, in addition, sheep-pox, dourine, glanders, and contagious diseases among fowls.

Local veterinary authorities should also be asked, in all cases, to warn neighbouring authorities telegraphically, and not merely in writing. The latter process would, in many cases, be too slow to be of any real use.

The experts request the International Office for Contagious Diseases to determine the conditions required for the organisation and operation of their rapid information service.

II. Other Forms of International Co-operation.

All the foregoing considerations tend to show that an improvement in the international veterinary sanitary situation brought about by the best possible sanitary organisation in all the countries engaged in international trade would be of equal advantage to exporting and to importing countries. The former would be enabled to increase their production and facilities for the sale of their live-stock and animal products; the latter would obtain greater guarantees for the goods they are obliged to import for the needs of the population and would, at the same time, be protecting their own live-stock against the danger of disease as a result of international trade.

It was from the point of view of this common interest that the Economic Consultative Committee, at its last session in May 1929, expressed the hope that the countries concerned would co-operate loyally, adding that it trusted that all the countries represented on the Committee would consider it a duty freely to exchange information and thus each contribute towards the advancement of science.

The sole object in view is to increase our knowledge and apply it more widely; closer and more frequent contact between nations than has hitherto obtained might therefore be of great value.

In addition, in order to carry out fully their task, the experts should try to establish a number of fundamental principles acceptable to all countries. Without in any way infringing on the sovereignty of States, in certain carefully defined circumstances, agreements and special arrangements might be promoted between various countries for strengthening the campaign against diseases in animals and facilitating international trade by improving veterinary relations between the various countries; for, however reasonable the rules accepted by common consent may be, their application must, in the long run, be left to the parties concerned, and everything depends on the manner in which the rules are applied. In view of the possibility, if not the certitude, of some differences of opinion, it would be useless to lay down rigid principles. Differences of opinion should be reduced by encouraging as much contact as possible between the interested parties.

Appropriate means must be found of developing contact between veterinary administrations in the different countries. This might, in the opinion of the experts, be secured in the following way:

(a) Admission of Students and Teachers of One Country to the Institutions and Laboratories of Another Country. — The admission of the veterinary students and teachers of one country to the institutes and laboratories of another country should be facilitated and encouraged.

Such relations already exist between numerous countries, in which foreign students are warmly welcomed by veterinary schools and research institutes. The experts are of opinion that it is very important that international interchanges of students should be as effective as possible. Such students should be required to possess a good general education and be sufficiently well acquainted with the languages required. Given these conditions, interchange might complete and amplify the education of foreign students, and familiarise them with the teaching and research methods in use in other countries. Similarly, it would be very desirable for professors, lecturers and assistants to acquaint themselves, by visiting the institutions of other countries, with foreign methods. They would thus increase their own knowledge and enlarge their outlook. It might also be possible to organise special courses for young veterinary officers in particularly suitable institutes and laboratories abroad, thus completing their instruction and providing them with a deeper knowledge of the state of science and research work in the various countries.

(b) Commissions of Enquiry; Individual Missions; Exchange of Veterinary Officials. — It would be desirable to organise commissions of enquiry on the lines already followed in the case of human hygiene by the Health Organisation of the League of Nations, and veterinary officials should be exchanged between the various administrations.

A member of the Health Section of the League of Nations briefly explained to the experts the manner in which the interchange of medical officers was organised. Thanks to grants from the Rockefeller Foundation and a special item in the League budget, the Health Section organises study tours in several countries of particular interest from the health point of view. Medical officers from different countries nominated by their Governments take part in these tours.

In addition, individual missions—entrusted generally to the public health officials of a given country—are organised under special arrangements concluded between the Health Organisation and the health services of the countries in question. In this way, a number of officials of one country acquaint themselves with current practice in other countries in which conditions are particularly favourable.

The experts believe that, in veterinary work also, such exchanges might be of great value. They would lead to the study of the special conditions in the various countries of stock raising, distribution, herding and transport of live-stock, which are important factors in determining the danger of infection. These exchanges would familiarise the visitors with the special sanitary measures required to counteract the situation and prevent any introduction of infectious diseases when foreign live-stock and animal products are being imported. These missions would also make it easier to understand the various sanitary systems on which veterinary laws and working methods are based, and to appreciate their practical value.

The experts are of opinion that, in addition to commissions of enquiry consisting of responsible veterinary directors, the programme of which should be drawn up by the competent organisation of the League of Nations in conjunction with the countries concerned, the temporary seconding of young veterinary officials to the veterinary health administrations of other countries would constitute an extremely useful form of international co-operation. These officials would, in the course of several months or years, be able to gain a practical knowledge of the methods and rules

followed by foreign veterinary services, which would be of inestimable value for their training and give them a proper insight into the working of the various veterinary systems.

(c) Permanent establishment of Veterinary Officials in the Territory of Another Country; Closer Contact between the Veterinary Authorities of the Countries concerned. — The problem of the permanent establishment of veterinary officials of one country in the territory of another country is no doubt difficult and complicated. Not to mention the various missions which these officials might usefully accomplish, it seems that, in the case of countries between which the trade in animals and animal products is intense, an arrangement of this kind might obviate many difficulties which at present frequently arise in this branch of international trade. As a matter of fact, there already exist certain precedents and examples.

The veterinary conventions which have been concluded between Austria and Czechoslovakia, Germany and Hungary and the conventions between Czechoslovakia and Hungary, Latvia and Roumania include with slight variations the following provisions:

"Each of the two parties grants the other the right to send representatives into its territory, without previous notice, and even to appoint permanent representatives for the purpose of keeping them informed as to health conditions among animals, the organisation of cattle (meat) markets, slaughterhouses, fattening establishments, quarantine measures, etc., and as to the enforcement of the existing veterinary regulations.

"The two contracting parties shall instruct their authorities to give the necessary assistance to the above-mentioned representatives and provide them, as soon as their status has been established, with all the information required."

The same provisions, subject merely to previous notification in the case of the despatch of representatives, have been agreed to by Austria and Yugoslavia and, on rather less definite lines, between Czechoslovakia and Poland.

The veterinary conventions concluded between Yugoslavia and Hungary, and between Yugoslavia and Greece, contain the following provisions:

"The High Contracting Parties grant each other the right to attach to their legations permanent or temporary veterinary representatives for the purpose of collecting information regarding stock-breeding, the health of live-stock, the organisation of cattle markets, places of embarkation and disembarkation, slaughter-houses, fattening establishments, quarantine stations, etc., and enforcement of the existing veterinary regulations and the present Agreement (the present provisions).

"The two parties undertake to provide these representatives with all information and to afford them all necessary assistance in carrying out their mission."

The Austrian expert pointed out to his colleagues that, under the veterinary agreements concluded by his country with Germany, Hungary and Yugoslavia, Austrian veterinary surgeons are posted at Munich, Budapest and Zagreb.

Similarly, with the consent of the Government concerned, there are resident British veterinary officials in South America who are responsible for visiting the Argentine, Brazil, Chile and Uruguay; and there are veterinary officials from Australia, New Zealand and the United States resident in London. This exchange of veterinary officials has proved highly satisfactory.

The great advantage of these exchanges lies in the fact that they enable officials from the various veterinary services concerned to consult each other direct on all questions which arise, without having recourse to diplomatic channels.

The only reason for which the experts hesitate to propose the temporary or permanent posting of veterinary officials in the territory of another country as an essential principle is that such a stipulation might be regarded as infringing national sovereignty. The working of this system should be carefully examined, taking into account the particular relations existing between the countries in question. It cannot, however, be denied that this method would possess enormous advantages, and would harmonise the various sanitary requirements, or help to make them better understood. The experts think that the proposal might first be considered for countries for which the trade in live-stock and animal products is of great importance, and which are therefore obliged to regulate that trade by means of special agreements.

Though leaving it to the countries concerned to decide the question of the exchange of more or less permanent veterinary officials, the experts unanimously recognise that, in any event, means should be found to establish closer contact between the veterinary administrations of the countries interested, in order to prevent difficulties that may result from a large trade in live-stock or animal products.

It is already in some cases the custom, as between countries which have concluded veterinary conventions, for the veterinary administrations to communicate direct *inter se* and not through diplomatic channels, when difficulties arise in connection with the trade in live-stock. It would be well if this custom could be extended, since direct communication without recourse to diplomatic action would enable the countries concerned to exchange up-to-date information concerning complaints or demands on veterinary matters and meet each others' views. If such communications are withheld until diplomatic intervention seems necessary, a regrettable atmosphere of misunderstanding may arise and prohibitive measures may be taken against the trade in live-stock.

5. SANITARY VETERINARY MEASURES APPLIED AND MEASURES APPLICABLE TO THE IMPORT, EXPORT AND TRANSIT OF ANIMALS.

The task of the Committee of Experts is not merely "to consider what guarantees might be given by countries exporting live-stock", but also to define "the facilities which importing countries might grant on the basis of these guarantees".

The Sub-Committee of Experts is of opinion that the principles it has laid down regarding the organisation of veterinary services and the publication of health bulletins are essential points as regard the protection of animals against disease; at the same time, these measures provide the minimum guarantees requisite, and correspond to the requirements of veterinary inspection and public health. Naturally, the various methods of international co-operation referred to in the previous chapter will also strengthen these guarantees to a considerable degree.

Having thus indicated the essential factors for the establishment of mutual confidence between countries having common commercial interests, the experts are now able to undertake the other part of their mission—namely, to consider to what extent and by what methods the various countries may come to an agreement to abolish such hindrances to trade as are not justified by or necessary for the legal protection of animals and public health.

The experts therefore felt that, in the first place, it was essential to institute an enquiry into the measures at present in force in the different countries in relation to the import, export and transit of animals and products of animal origin; the actual manner in which these measures are applied in the various countries must be ascertained in order to appreciate the difficulties as regards administration and hygiene which will have to be overcome. To this end the experts, at their second session, prepared a questionnaire¹ which, by decision of the Council, was communicated to the States Members and principal States non-Members of the League of Nations. At their third session, therefore, the experts had at their disposal abundant information, including replies to the questionnaire from thirty-two States: Australia, Austria, Belgium, Bulgaria, Canada, Colombia, Czechoslovakia, Denmark, Estonia, Finland, France, Germany, Great Britain, Hungary, Italy, Irish Free State, Latvia, Mexico, Netherlands, Netherlands Indies, New Zealand, Norway, Poland, Union of South Africa, Spain, Sweden, Switzerland, Turkey, United States of America, Union of Soviet Socialist Republics, Uruguay and Yugoslavia.

Since the session, information has been received from the following countries: Brazil, China, Japan, Roumania, Southern Rhodesia.

(a) The Two Systems applied in Different Countries. — The information thus collected shows that serious and permanent obstacles are placed in the way of the trade in live-stock for veterinary health reasons. There are, however, at least two entirely different systems which the various countries apply in regulating international trade—some place a general prohibition on the import of animals into their territory and grant permits in exceptional cases only, while others recognise the principle of free import but restrict this by more or less far-reaching prohibitions.

Under the first system often known as that of "the closed door" permission has to be obtained for the import of any live-stock. The conditions under which imports may be authorised are laid down in decrees which generally contain special regulations for the import of live-stock coming from different countries. This system, of course, does not mean that the import of live-stock from a seriously infected country cannot be prohibited altogether. England, for instance, only allows animals to be imported from certain definite countries in which neither foot-and-mouth disease nor sheep-pox exist.

Moreover, special decrees often encourage imports from given countries, and special regulations may be brought into play as a result of veterinary conventions.

The other system, known as "the open door", is founded on the principle of free import subject to certain prohibitions or legal restrictions. Under this system, certain species of animals are often allowed to enter on obtaining a permit which is almost always accorded if the animals come from a country in which the live-stock is in a good state of health. The granting of special import licences depends, in this case, on epizootic conditions in the countries of origin. It is possible therefore, that the import of animals coming from a country where disease is endemic may be prohibited, but such prohibition is, in principle, only for a limited period. Under this system, special regulations may also be adopted by means of veterinary conventions.

Both systems have advantages from the veterinary sanitary point of view, and their effects on international trade depend solely on the way they are applied. If, under the system of the "open door", permission to import is entirely refused without any decree requiring such total prohibition, the practical results may be more prohibitive than those obtained under the "closed

¹ See Annex to the Sub-Committee's report on its second session (June 1928), given in document C. 525. M. 155. 1928. II (E. 432).

door "system. It should, however, be observed that the system of the "closed door "necessitates various kinds of derogations which generally take the form of special import permits. With regard to these permits, the experts wish to draw attention to two important principles:

I. Permits should be granted in a liberal spirit, and should not be refused except for conclusive veterinary reasons.

II. The application of general permits in favour of specified countries should, whenever possible, be taken into consideration with a view to avoiding individual exceptions, which are only granted for a given number of animals and for a given period.

(b) Bilateral Veterinary Conventions. — In applying both systems, as we have seen, relaxations in the legal provisions and consequently trade facilities can be—and are, in fact—accorded under bilateral veterinary conventions between the two States concerned.

These veterinary conventions are of two types. The first includes those which regulate frontier traffic. Such agreements are, in many countries, an absolute necessity on account of the close relations between neighbouring States. In spite of the smallness of the territorial area to which these conventions apply, their importance is by no means negligible, either from the point of view of commercial relations or from that of the special dangers which frontier traffic and grazing involve as regards the introduction of animal diseases. The second, and more important, category includes veterinary conventions intended to lessen throughout the whole territory of the contracting parties the severity of certain laws. Generally, in this case, the parties undertake not to introduce import prohibitions or restrictions except according to the provisions laid down and specified in the conventions. The essential object of these conventions is therefore to ensure the stability of trade and speedy transactions between the two contracting countries by limiting prohibitions and restrictions, both as to duration and area, in conformity with definite rules according to the gravity of the various diseases.

The experts unanimously recognise that bilateral veterinary conventions (whether separate or annexed to commercial treaties) can facilitate international trade. They therefore seem to be an appropriate means of encouraging international trade so far as is compatible with the needs of animal health. Certain experts, however, pointed out that the mere fact that appropriate veterinary sanitary measures are prescribed does not necessarily mean that they will be effective; this depends on the way in which they are carried out. In deciding, therefore, whether it is in a position to conclude a convention of this kind, a Government must consider, not only the general state of health of the live-stock in the countries concerned, but also whether there is any evidence that the measures prescribed are conscientiously carried out. The experts admit that countries with a large and varied live-stock trade, which are consequently likely to spread epizootic diseases, are justified in exercising a certain caution in settling this question, in the interests of the protection of their live-stock.

(c) Certificates of Origin and Health; Sanitary Inspection on Export: Joint Veterinary Inspection: Transport of Animals by Sea. — Apart from the facilities granted under bilateral veterinary conventions, whatever system may be adopted, the import of ruminants and pigs is almost everywhere prohibited, though commercial transactions in these animals are the most important of all. When exceptions to this rule are allowed, they refer in most cases only to certain varieties coming from a given locality.

These strict prohibitions are, it is true, justified when epizootic diseases which are highly contagious and highly detrimental from the economic point of view are prevalent in a country. The prohibitions in question may take the form of absolute prohibitions to import, if this is justified by special veterinary reasons.

The experts feel that, apart, from special arrangements—which are, as a rule, very desirable concluded between two countries by means of bilateral veterinary conventions, a series of precautionary measures differing according to the system of prohibitions, if adopted and applied by the various countries, either autonomously or by joint agreement, might enhance the value of existing guarantees and thus induce the importing countries to afford greater commercial facilities. They draw attention to the following points:

I. Certificates of origin and health are everywhere recognised as indispensable, in order to ensure sincerity and safety in commercial relations. Similarly, certificates concerning animals intended for export are of very high importance to international trade. They are generally required by importing countries and are issued by exporting countries—*i.e.*, they are in common use in international trade. But the impression exists that certificates are not always issued with the necessary conscientiousness and care, and that the certificates issued by various exporting countries are not always equally valid as guarantees. The confidence which may be placed in these certificates, even when they are issued by Government veterinary officials, depends entirely on the excellence of the veterinary organisation and the severity of the veterinary officials in a given country.

The experts unanimously agree that a certificate has no real value unless it involves the full moral responsibility of the Government in whose territory it is issued. They consider it essential that certificates for animals intended for export should only be issued on the absolute responsibility of the country delivering them. Being convinced that this is an absolute necessity, the experts have laid down as one of the principles which should govern the organisation of veterinary services that:

"Certificates of origin and health certificates should be signed or countersigned by a Government veterinary official, or by a veterinary surgeon having authority from the Government to do so, and must in all cases involve the responsibility of the Government issuing them."

By "the responsibility of the Government" the experts mean that the Government shall recognise that it is responsible for the selection of its veterinary officials who are authorised to sign or countersign the certificates, and that the latter must be liable to disciplinary or penal penalties in order that their responsibility may be involved if they neglect their duties.

There are very few countries which do not yet possess a complete veterinary sanitary organisation directly dependent on the State. Those of them, however, which, like Great Britain exercise direct and effective supervision over the action of the local veterinary authorities in connection with international trade, and take full and entire responsibility for that action deserve the confidence of other nations. The experts are therefore of opinion that the principle of the responsibility of the State for certificates of origin and health certificates in respect of animals is of very special importance. Such responsibility might also be involved where special accredited and authorised veterinary agents are appointed to issue certificates. These agents should be subject to disciplinary control involving the responsibility of the State. The experts therefore feel bound to insist on a principle which harmonises with the usual method of organisation of veterinary services; they have thought this fact to be of sufficient importance to warrant its inclusion as a special chapter in this report. Though they recognise the difficulties that might arise as a result of the special conditions of the administrative systems in the various countries with regard to the legal status of veterinary surgeons authorised to sign or countersign certificates, the action of the latter should, in every case, involve the entire responsibility of the issuing State as indicated above.

Finally, with regard to the manner in which the certificates should be issued, it would be very desirable to establish a model form, if not a uniform text, for the certificate of origin and health for the various kinds of animals under consideration. It is therefore interesting to note that the assembly of the International Office for Contagious Diseases of Animals, at its last session, considered the problem of the unification of health certificates and drew up a uniform model. This question is still on the agenda of the office.

II. It is obvious that, in the commercial interests of any country, the health of animals about to be exported should be as satisfactory as possible. The exporting country should therefore endeavour to prevent the export abroad of all animals that are not in perfect condition. It is even in the interests of the exporting country to forestall a refusal on the part of the authorities of the importing countries to allow the live-stock to enter their territory. It is highly important, therefore, that the veterinary inspection of animals, which should take place before the issue of a health certificate, should be made most conscientiously.

In the course of our report, we have on many occasions insisted on the principle that importing countries should be able to feel absolutely certain regarding the sanitary precautions taken, for their benefit, by animal-exporting countries. The latter should, by the effectiveness of the sanitary measures they adopt, endeavour to diminish as far as possible the risks incurred by importing countries. It is impossible for an importing country to exercise an absolutely effective control. Consequently, the sanitary measures adopted by importing countries can never be regarded as a sufficient guarantee for the protection of native live-stock and the health of human beings. On the contrary, the institutions in the exporting countries and the measures adopted by them must always be the main guarantee afforded to the importing country for the effective protection of the latter against the entry of diseased animals.

In the light of these premises, the experts have carefully considered the desirability, and even the necessity, of additional sanitary inspection to take place at the time of the export of the animals -i.e., at the frontier. They came to the unanimous conclusion that such inspection might in certain cases produce very satisfactory results and might provide an important guarantee.

The information collected by the experts shows that several exporting countries do not carry out any inspection at the frontier. In some countries, such inspection is compulsory, while in others it is optional. The experts are of opinion that such frontier control should take the form, not so much of a veterinary inspection as of a careful verification of the certificates of origin, waybills, etc., accompanying each consignment, in order to ascertain that the animals have really been consigned from the places specified in the certificates and not from places that are not free from all infection. The experts are of opinion that a veterinary inspection of animals at the frontier, which would in most cases entail the detrainment of live-stock at the frontier stations, is not to be recommended in view of the fact that any crowding of animals in a limited space considerably increases the danger of infection.

Consequently, the experts are also opposed in principle to the system of quarantine, which they feel should be applied only to certain animals and more particularly to pedigree stock.

The experts feel that the effect of the supervision they propose would be to render the veterinary inspection previous to the issue of a health certificate much stricter. In point of fact, the veterinary official issuing the certificate would take care to fulfil his duties most punctiliously if he knew that a further very careful examination would, or might, be made at the frontier of his country.

Under these circumstances, the mere inspection of wagons and the conditions under which transport is effected should, in general, be sufficient, in addition to the verification of the documents accompanying the consignment, as a complement to the stricter inspection which would have already been made in the interior.

Nevertheless, there still remains a danger that animals may, in spite of all precautions, contract a disease en route, or that animals with disease in a state of incubation when inspection took place may become definitely diseased during transport. If the disease which has broken out en route is not discovered in time and if, consequently, the consignment is not withdrawn, the infected live-stock will come before the inspecting authorities of the other country, an eventuality which should be avoided at all costs in the interests of the exporting country itself. The result of such an occurrence would certainly be that the authorities of the importing country would adopt rigorous measures, even going so far as to suspend, for a time, all imports from the country in question—a decision which would be very prejudicial to that country's trade. The experts, therefore, have also considered whether veterinary inspection in the importing

country when the animals are received should not be carried out in the presence of veterinary officials of the exporting country.

The experts believe that the system of joint inspection by veterinary inspectors of the two countries concerned merits very careful consideration.

For this purpose the use of international railway stations, or of common frontier stations where they exist, has been found practical. Moreover, more of such stations might be established in suitable places. It would, however, be necessary to provide the stations with the most modern equipment for conducting all veterinary operations required.

This system would offer the further advantage that the inspection of live-stock in the presence of veterinary officials of the exporting country would tend to eliminate the feelings of resentment experienced by the owners of animals the entry of which is refused or the slaughter of which becomes necessary.

Certain experts referred to the advantage of transporting animals by sea, so that animals can be slaughtered at the port of landing and need not enter the country. Other experts, however, emphasised the enormous commercial risk of having a whole cargo refused as a result of disease in a few animals.

(d) Application of Sanitary Measures according to the Seriousness of the Disease. — In the light of the information provided, the experts have thus indicated a few of the essential ways in which the supervision generally exercised on the import and export of live-stock might be improved. They consider that the joint application of the principles they have laid down concerning the organisation of veterinary services and the publication of health information might, together with their other recommendations, help appreciably to diminish the dangers inherent in the international trade in live-stock. The experts are therefore of opinion that it is possible to indicate, on an essentially scientific basis, the veterinary measures which, in the present state of our knowledge, seem both indispensable and appropriate for the avoidance of the import of the most serious diseases.

The various contagious animal diseases at present classified are here divided into four groups according to their seriousness and degree of transmissibility. It seems reasonable to indicate the following measures as indispensable and appropriate for each of the groups considered.

I. First Group.

This comprises only one disease: cattle plague.

The import of cattle may be prohibited from countries which have not been completely and certainly free from the disease for at least twelve months.

The time from which this period is to be counted is the date on which all veterinary measures were abrogated in the exporting country. As regards animals, the prohibition extends to all species of ruminants, whether domestic

or wild, and also to pigs.

II. Second Group.

This group comprises the following diseases: (1) foot-and-mouth disease; (2) swine plague; (3) sheep-pox; (4) contagious peripneumonia of cattle; (5) fowl plague; (6) fowl cholera; (7) white diarrhœa of chickens.

Any country which is entirely free from one of the diseases enumerated above, or is relatively little infected, is fully entitled to prohibit completely the import of receptive animals coming from the infected countries, except in the cases of fowl cholera and white diarrhœa of chickens.

Some experts are of opinion that, in the case of foot-and-mouth disease and swine plague, total prohibition would be too drastic, and that prohibition might be limited to the infected territory and neighbouring districts.

Countries already infected may allow this rule to be relaxed, having regard to the epidemic type of the disease in the places and at the time considered, the possibility of the import of a new type of virus (foot-and-mouth disease and probably swine plague), and the economic purpose for which the imported animals are intended.

Facilities for import may possibly be contemplated for animals which have been subjected in proper time to active or passive immunisation, and for animals which are intended to be sent direct to special slaughter-houses.

III. Third Group.

This group comprises the following diseases: rabies, dourine, glanders.

All countries are trying to eradicate these three diseases. Drastic measures as regards import are, in the case of countries at present free from these diseases, justified by the fear of reintroduction. For purposes of import, guarantees may be demanded in the case of all these diseases. One form of such guarantee would be certificates identifying the animals as coming direct from districts which are certainly free from the disease in question. In the case of dourine, an import prohibition on stallions seems justified.

IV. Anthrax (Milzbrand).

Duly identified animals should come from places (stables, pastures, etc.) which are unquestionably and habitually free from anthrax.

V. Diseases affecting Stock-Raising.

Trade in animals specially intended for cattle-raising (more particularly breeding or pedigree animals) would be improved if there were a system of inspection which made it possible to issue an official guarantee that the animals come from farms which are unquestionably free from those diseases which, although not generally classed among contagious diseases, nevertheless cause considerable loss or constitute a danger to public health. Such are, for instance, epizootic abortion in the various species (cows, mares, sows), undulant fever, contagious mammitis, tuberculosis in all species.

6. TRANSIT OF ANIMALS.

In many of its aspects, the problem of the transit of animals is essentially international and is, from several points of view, a matter of primary importance,

In a continent like Europe, certain countries have a surplus of live-stock which they are not always able to sell in the markets of the neighbouring countries. Other countries have not sufficient live-stock and, if the neighbouring nations were to prohibit the transit of animals, they would be unable to meet their requirements.

Several experts therefore insisted that the transit of live animals may become a fundamental need for an importing country if that country has to make good a deficiency in its meat supply, seeing that certain countries are obliged to obtain their supplies from distant sources. If transit were not subject to regulations, and if each nation were entirely free to prohibit the transit of live-stock without good reason, the countries forced to import live-stock would be deprived of an article of prime necessity.

Thus defined, the question becomes of basic importance from the point of view of international trade.

When it is considered that a convoy of animals may have to traverse the territory of several countries in order to reach its destination, the international character of the problem is obvious.

International rules governing the main conditions under which the transit of live-stock may take place would, in many cases, obviate the necessity of those special arrangements which have so often to be concluded between a large number of interested countries.

It cannot be denied that the transit of animals involves, for the transit countries, some risk of infection. In particular, if transport necessitates long journeys over a wide territory, with the passage of numerous herds along the roads, the necessity of watering and feeding the animals undoubtedly involves some danger of infection of the native live-stock. But opinions differ as to the degree of risk occasioned by the transit of live-stock. Some countries hold it to be the same as in the case of imports, and therefore subject live-stock in transit to the same conditions as imported live-stock. On the other hand, most countries consider that transit under certain conditions does not involve the same danger as import, and grant, by means of veterinary conventions or special arrangements, certain facilities to live-stock passing in transit.

On this point, also, there were two opposite currents of opinion in the Sub-Committee.

Some experts held that the transit of animals involved the same risks as their import, if not greater risks. They maintained that it was not possible, for technical reasons and on account of the expense, to close the wagons so hermetically that no droppings or other infected matter could pass through. During the journey, also, it was necessary to water and feed the animals, which, in most cases, necessitated their detrainment.

Most of the experts, however, though recognising that transit countries incurred certain risks, thought that the danger might be greatly reduced, if not altogether eliminated. They are of opinion that transit countries are entitled to require the same certificates of origin and health as in the case of imports, and that animals should be subject to sanitary inspection at the frontier.

The detrainment of animals naturally involves the greatest danger; but this might, even on a long journey, be avoided by what is known as the "chain sealing" system. This sytem makes it possible to water and feed the animals in the wagons. These experts think that the danger of droppings or food débris falling from the wagons should not be exaggerated. Scattering of droppings might be reduced to a minimum by some apparatus installed in the trucks, if it be held that the construction of special trucks is precluded on account of the high cost.

Generally speaking, these experts felt that the transit of animals should, on account of its economic importance, always be authorised if guarantees are provided against the dangers incurred by the country of transit. A proper equilibrium must be sought between the sanitary interests of the transit countries and the lawful claims of international trade, which might be seriously affected by exaggerated obstacles placed in the way of transit.

The Sub-Committee of Experts recognises that this danger could be lessened by measures of various kinds:

(a) By requiring, in the case of animals presented for transit, guarantees similar to those required in the case of imported animals;

(b) By prohibiting or regulating the temporary unloading of animals during their journey through the territory of the transit country—which unloading may be necessary in order that the animals may receive attention (cleaning, feeding, milking, etc.);

(c) The experts think that a great advantage would be secured if it were technically and econominally possible for railways to adapt trucks on hygienic lines so that they would be free from the defects of these now used—namely, the falling out of droppings and other matter which might cause infection;

(d) In any case, transit countries are fully justified in requiring the country of destination or transit to allow the unconditional entry of the animals and to recognise that no responsibility for the health condition of the animals is incurred by reason of transit.

7. IMPORT, EXPORT AND TRANSIT OF MEAT AND MEAT PREPARATIONS.

The difficulties which the trade in live-stock encounters as a result of veterinary regulations and the considerable development in the foodstuffs industry has resulted in an evergrowing international trade in meat and meat preparations. This tendency is accentuated by the fact that modern refrigerating plant makes it possible to transport these commodities over long distances without any serious drawbacks.

Though it cannot be denied that the danger of contamination is appreciably less in the case of meat and meat preparations than in the case of live animals, the danger—as is proved by numerous observations and experiments—undoubtedly exists.

In addition to preventing the spread of animal diseases, the veterinary authorities have to see that no meat or meat preparations which could be harmful to man are placed on the market.

The trade in live animals being limited by the requirements of the veterinary authorities the regulation of the traffic in meat and meat products is, from an economic standpoint, all the more important.

Countries which possess a surplus of live-stock, and also a well-developed foodstuffs industry, endeavour to export animal products where the trade in live-stock is impeded or hampered by distance or by sanitary requirements.

Moreover, the dangers connected with most animal products mainly affect human health, and the progress of science has made very searching investigations possible, so that the risk of infection is considerably diminished.

(a) *Meat.*—In general, meat can be imported more easily than live animals. Some countries, however, require an import permit, either because no veterinary conventions have been concluded on the subject, or for the import of particularly large quantities, or again for meat coming from certain localities.

The seriousness of the danger to human diet represented by different classes of meat (fresh, chilled or frozen) in certain cases varies according to whether the meat is eaten raw or cooked. If we take the case of parasitic diseases transmissible to man, frozen meat seems less dangerous than any other kind. On the other hand, the virulence of certain germs is preserved by freezing, and this question is still under consideration.

In any case, the experts unanimously agree that less danger to health attaches to the trade in meat than to the trade in live-stock. All meat, however, whether fresh, chilled, or frozen, is inspected under practically the same conditions and with the same severity by the veterinary and health authorities, no distinction being drawn between the various varieties.

In most countries, consignments have to be accompanied by a certificate of origin and a certificate of health attesting that the animal was in perfect condition before it was slaughtered and that its meat after slaughter has been found healthy. Except in a few countries, meat is inspected at the frontier. In order to ensure efficient inspection, it is generally stipulated that meat must be imported in quarters or entire carcases, and sometimes that certain internal organs shall remain actually attached to the carcase.

Although the inspection of meat at the frontier, and of attached viscera, is harmful from the point of view of preservation, the experts readily admit that, in the case of all meat, countries should be allowed to lay down rules as to the locality in which the inspection should take place, whether at the frontier or at the place of destination. Though the adherence of internal organs which decompose rapidly may, as regards the preservation of the meat, have certain drawbacks, its importance for a thorough general inspection is sufficient to warrant this stipulation.

In the case of *chilled and frozen meat*, which mainly comes from overseas countries, the great length of the voyage practically precludes the presence of organs which are specially liable to decomposition. Some countries, therefore, no longer insist upon this point. The experts are, however, of opinion that it is important that this meat should be submitted for inspection in a state in which effective examination is possible, especially as regards the lymphatic and serous glands.

In the case of transport by rail, this examination is only feasible at the place of destination. As a general rule, the inspection at the frontier should be limited to the verification of the certificates and papers accompanying the consignment, a method which is also followed in the case of fresh meat—for instance, in Austria and Czechoslovakia.

(b) *Meat Preparations.* — Whereas the examination of meat preparations proper—such as hams or bacon, salted or dried, meat in large pieces and salted or dried meat, etc.—is generally regarded as possible, differences of opinion exist as to the relative difficulty of effectively inspecting minced meat or meat cut up in small pieces, even when histological, bacteriological and chemical methods are employed. These differences of opinion are reflected in the varying strictness of the regulations in the different countries. The experts unanimously recognise that even histological, bacteriological or chemical examination may in such cases prove inadequate.

Differences do, in fact, exist as regards the granting of import authorisations. Some countries refuse to grant them, others require one for each consignment, while others grant general and unlimited authorisations only requiring health certificates of the same type as in the case of meat imports. Germany and Poland, for instance—though the latter allows exceptions in veterinary conventions—totally prohibit the import of preserved meat and sausages. Switzerland only excludes preserved meat which contains vegetable matter or parts of animal organs, and fresh sausages.

Whereas certain experts expressed the opinion that, provided the necessary rules were strictly observed, the trade in preserved meat and sausages presented no serious risk, other experts thought the special measures adopted by the respective countries were fully justified.

It is true that scientific requirements necessitate very rigorous hygienic measures, and that practically no arguments are available against the scientific convictions of certain experts. On the other hand, countries which are quite as strict theoretically, nevertheless actually apply a more liberal system. The only way to encourage a more liberal tendency seems to be to increase confidence in the veterinary and health organisation and the processes of manufacture in the various countries. In this instance, also, international co-operation by interchange of veterinary staff or officials for the supervision of manufacture might be useful.

(c) *Certificates and Other Guarantees.* — The best method of facilitating the trade in meat and meat preparations is undoubtedly the establishment of a reliable official inspection certificate made out by official veterinary officers and certifying that the meat and meat preparations in question are derived from animals which were inspected before and after slaughter and of which the meat was recognised as fit for consumption.

If these certificates were made out in a trustworthy and conscientious manner, mutual confidence would be considerably increased and international trade would undoubtedly be increased.

Other methods likely to facilitate this trade are the conclusion of bilateral conventions, which already exist between certain countries, and, in the case of countries between which there is a great volume of trade, the maintenance of veterinary officials of one country in the territory of the other, as is already the practice between Great Britain and the South American Republics.

(d) *Transit.* — While in the case of the import of meat and meat preparations veterinary measures are indicated, it is certainly desirable that the greatest facilities should be granted for the transit of these foodstuffs. In particular, control at the frontier of countries of transit should be confined to the examination of certificates. Trucks should only be opened if the Customs authorities concerned consider this necessary in order to check the contents.

Permits for the conveyance of meat and meat preparations in transit would appear to be superfluous; or, at least, they should be very freely granted, especially when it is certain that the country of destination is prepared to accept them.

Wherever possible, the supervisory officials of adjacent countries might undertake inspection jointly, as is already done at joint or international stations.

8. INTERNATIONAL TRADE IN ANIMAL PRODUCTS (MEAT EXCEPTED).

(a) Diseases to be considered.

The experts are unanimous in regarding trade in those products of animal origin which are considered below to be less dangerous than trade in live-stock and meat. They admit, however, that the danger of these products may differ for man and for animals. The danger varies according to whether effective disinfection is or is not practicable.

In international trade, the only diseases of animals the transmission of which through animal products need be taken into consideration up to the present are:

- Symptomatic anthrax; I.
- 2. Cattle plague;
- 3. Foot-and-mouth disease;
- Swine plague. 4.

Ad I. — The reality of the danger of symptomatic anthrax is universally admitted, and recent observations in Germany and Great Britain prove how serious it is. The virus lurks in skins and hides and sometimes also in bones and meat. It may be transmitted by soiled wool, hair, horns, etc., and, generally speaking, by all portions of the carcase. The permanent nature of the virus and its considerable power of resisting all methods of

destruction increase the danger of infection.

Ad 2. — Experiments have shown that the virus of cattle plague does not possess a long life in external media. Nevertheless, the conditions under which products are preserved may protect it from the usual influences (desiccation, light, etc.), and, moreover, the action of antiseptics on the various animal products is insufficiently known. What is known, however, of the resistance of other viruses thought to be even more fragile (foot-and-mouth disease) justifies the measures of extreme caution hitherto applied.

Ad 3. - It is an ascertained fact that the foot-and mouth disease virus is much less fragile than, until quite recently, it was thought to be. It resists desiccation for several weeks after the contamination of foodstuffs, such as hay, bran and flour. It is only destroyed by relatively high temperatures, and cold preserves it.

Fresh animal products should therefore be regarded as dangerous. Further research is necessary to determine the duration of the virulence of foot-and-mouth disease under various conditions.

The results of the very careful enquiries which have been conducted into the virulence of foot-and-mouth disease should warn us against accepting too rigidly the classical data concerning the resistance of viruses of other diseases of the same type—cattle plague, swine plague, fowl cholera, etc. Generally speaking, our knowledge of the resistance of viruses in animal tissues or products will have to be thoroughly revised.

Ad 4. — All that has just been said with regard to the case of foot-and-mouth disease virus applies also entirely to swine plague virus.

(b) Guarantees required.

The sanitary guarantees which can be given in the case of animal products are of three kinds:

(I) When the countries of origin are totally free from diseases, the transmission of which is to be feared;

(2) When the animal products come entirely from animals free from those diseases which could not possibly have been indirectly contaminated in the course of manipulation or transport;

(3) When the animal products have been subjected in the country of origin to disinfection recognised as effective, and could not have been contaminated after such disinfection during the manipulation or transport.

With regard to (I), the fact that an exporting country is definitely free from disease affords an absolute guarantee. Such guarantee could only be provided by countries possessing an administrative and veterinary organisation under which the diseases in question could not remain undiscovered. In any other circumstances exported animal products must always be regarded a priori as suspect and dangerous.

With regard to (2), the guarantee that the animal products come from healthy animals is often required in international trade. Valid certificates can only be provided when these products come direct from establishments subject to permanent veterinary supervision (industrial slaughterhouses, etc.); in all other cases they are of very little value owing to the difficulty of identifying for certain the locality of origin.

In addition to the above guarantee, an indication should be given of the precautions taken to avoid the contamination of products during transport. In the case of anthrax, virulent products may affect various matter, such as food for animals (seeds, oil-cake, etc.), and thus cause their indirect contagion.

With regard to (3), any uncertainty as to the immunity of the animal products necessitates their disinfection or (as the case may be) examination with a view to ascertaining the presence of virus. In general, such action will have to be taken before exportation. It implies the use of methods of proved effectiveness under the control and responsibility of the exporting State.

Co-operation in such supervision by representatives of the importing countries concerned is eminently desirable as being calculated to strengthen the value of the certificates of health issued.

Certificates issued should state very accurately the means of disinfection or supervision employed. A guarantee will be given that all precautions have been taken to avoid contamination after disinfection and during transport.

In the case of goods covered by a collective sanitary certificate, the veterinary sanitary authorities of the ports, railway stations and warehouses can issue valid partial certificates to the same effect, to accompany reshipments or parts of a consignment. Such partial certificates will be accompanied by a certified copy of the original certificate.

In all cases in which the guarantees of the harmlessness of animal products are held to be inadequate, importing countries are absolutely entitled to require either disinfection on import or examination with a view to ascertaining the presence of certain viruses. They may impose in their territory special measures in regard to the transport and industrial treatment of suspect products.

No prohibition, limitation or sanitary formality should be placed in the way of *the transit* of animal products without grave reasons, if the animal products comply with the usual conditions in regard to the healthy condition of goods in transport, and if it is certain that they will be accepted by the countries to which they are consigned.

The International Office for Contagious Diseases of Animals is requested to continue its studies and enquiries with regard to the conditions of disinfection and sanitary supervision of these products; for international agreements in this matter are, in the experts' opinion, well adapted to facilitate trade in such products.

2. REPORT OF THE ECONOMIC COMMITTEE TO THE COUNCIL.

The Sub-Committee of Experts on Veterinary Questions submitted to the Economic Committee a general report on the work done during the past four sessions. The Sub-Committee of Experts was asked to consider what guarantees might be given by

The Sub-Committee of Experts was asked to consider what guarantees might be given by countries which export live-stock and animal products, and what facilities might be granted by importing countries on the basis of these guarantees; also to determine, in general, the best methods for applying veterinary supervision, taking into account the economic interests of the exporting countries and without prejudice to the interests of countries desiring to take precautions against diseases of animals.

In their general report, the experts first express their unanimous opinion on the principles that should govern the organisation of veterinary health services and the publication of veterinary health reports in the different countries. On both these subjects the experts reached definite conclusions as to the essential guarantees to be offered to States interested in the international trade in animals and animal products, guarantees which would give the necessary confidence regarding the health of imported animals and the wholesomeness of those animal products with which this trade is concerned.

The experts considered that a general application of these principles constitutes an essential condition of future progress.

In the field of international co-operation, the experts recognised the necessity of organising an urgent information service, if need be by telegraph. The relevant technical details should be studied by the International Office for Contagious Diseases of Animals in Paris. The experts considered a series of proposals, and made unanimous some important recommendations regarding the means of ensuring other forms of international co-operation which would be closer and more effective than it has hitherto been possible to realise.

The general report then gives the results of a thorough and detailed study of sanitary veterinary measures applied and measures applicable at present to the export, import and transit of animals. The experts devoted particular attention to the issue of certificates of origin and health, sanitary inspection at the time of export and import, methods of transport and details connected therewith.

The experts proceeded to classify contagious diseases according to their seriousness, and also differentiated between the dangers of the propagation of the various animal diseases, both by the import of animals and meat and by the import of other animal products. General transit facilities are proposed. Further, the experts contemplated a series of modifications in the veterinary measures applicable to international trade; these modifications might be made by good organisation of veterinary health services and information in the countries concerned, particularly the exporting countries.

The concluding portions of the general report are more particularly concerned with the risks of contagion by meat and meat preparations, as this trade is very important, particularly in the case of overseas countries which export large quantities of meat. Further, other animal products, such as skins and hides, pelts, horns, hoofs, wool, hair, bristles, etc., were thoroughly considered from this point of view. The experts reached the conclusion that this part of their work should be further studied in detail by the International Office for Contagious Diseases of Animals in Paris, particularly as regards the virulence of the different viruses by which disease might be propagated and the different methods of disinfection. The experts consider that international co-operation might, in this particular matter be of real assistance to international trade in these products.

The Economic Committee considered with great attention the contents of this report, and the main conclusions reached by the experts. Until the conditions mentioned above are realised, which the Committee hopes will soon be the case, it considers that States should, for the present, be allowed to regulate in their own interest a considerable part of the international trade in the products of stock-rearing—namely, the trade in live-stock and meat. A diminution in the severity of the veterinary measures at present in force concerning the export and import of such products seems, for the time being, to be a subject on which bilateral agreements would be more appropriate.

seems, for the time being, to be a subject on which bilateral agreements would be more appropriate. On the other hand, the unanimous conclusions reached by the experts show that the countries concerned would probably accept an international convention regulating the transit of animals and animal products, and a multilateral international agreement dealing with the export and import of animal products, except meat. Further, the experts' recommendations regarding veterinary organisation and services and

Further, the experts' recommendations regarding veterinary organisation and services and the publication of veterinary health reports in accordance with the recommendations of the International Office for Contagious Diseases of Animals, which has dealt with this problem for several years, and their proposals for closer co-operation between the various veterinary health services in the countries concerned, might be included in a multilateral international convention which might, apparently without much difficulty, be accepted by the various countries interested in promoting international trade in the products of the stock-raising industry.

in promoting international trade in the products of the stock-raising industry. The Economic Committee accordingly requested those of its members whom it had already appointed to keep in touch with this work, to draw up, with the help of the experts who might be consulted in any way they think most appropriate, preliminary draft conventions concerning:

(a) The organisation of veterinary health services and the methods that should be adopted for exchanging veterinary health information and for ensuring closer international co-operation between the different veterinary services;

- (b) Transit of animals and animal products (including meat);
- (c) The export and import of animal products, except meat.

The Economic Committee thinks that these main conclusions, based on the work of the veterinary experts, should be communicated to the Commercial Conference which is to be held on November 17th, 1930. That Conference will thus be able to appreciate the progress of the work done under the auspices of the Economic Organisation of the League.

