

LEAGUE OF NATIONS

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VIII. TRANSIT

1935

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LEAGUE OF NATIONS

ORGANISATION FOR COMMUNICATIONS AND TRANSIT

AIR TRANSPORT CO-OPERATION COMMITTEE

SPECIAL SUB-COMMITTEE TO STUDY THE QUESTION
OF THE CONSTITUTION AND OPERATION
OF A MAIN NETWORK OF PERMANENT AIR ROUTES

**ECONOMICS OF
AIR TRANSPORT IN EUROPE**

Report submitted to the Sub-Committee

BY

M. HENRI BOUCHÉ,
Editor of *L'Aéronautique*.

Final Edition¹

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| Series of League of Nations Publications |
| VIII. TRANSIT |
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¹ The provisional edition of the Report dated December 28th, 1933, was circulated to European countries only.

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PREFACE.

In 1934, the Secretary-General of the League of Nations sent to the Governments of European States a "provisional edition" of the present report requesting them :

(1) To communicate to him any observations and corrections which they might consider necessary ;

(2) To forward to him information and statistics relating to 1933 which would enable a more up-to-date "final edition" to be issued.

Although some of the replies received were much less comprehensive than others, they contained sufficient material to enable me to complete my task.

The final report consists therefore of two parts :

The first part is entitled : *The Economic Evolution of Air Transport in Europe, 1930-1933*. The text is taken from the "Provisional Edition", the last chapter of which was written in December 1933 and was communicated to Governments early in 1934. I have only inserted as footnotes or embodied in the text a few corrections of points of detail supplied by the competent administrations.

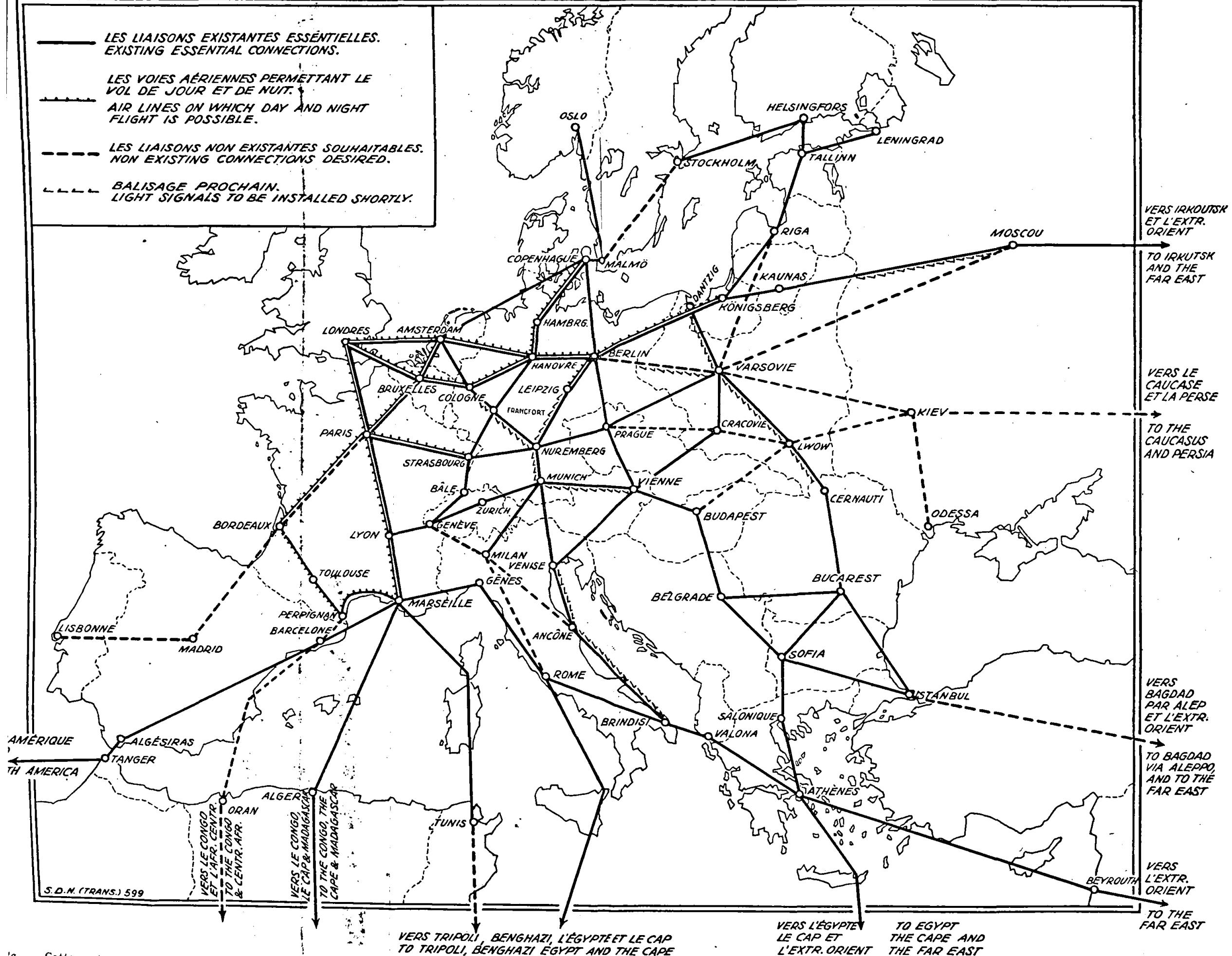
The second part of the report is entitled : *The Evolution of Air Transport in Europe in 1933*. It gives the chief statistical results and points out, where necessary, the differences between them and the results for the three years 1930-1932. It will be seen that, as a whole, these differences do not reflect unforeseen changes.

At the beginning of 1935, therefore, my conclusions remain the same as those reached by me in 1933 and which are to be found at the end of the first part of the report.

Part I.

**THE ECONOMIC EVOLUTION
OF AIR TRANSPORT IN EUROPE,
1930 - 1933**

— LES LIAISONS EXISTANTES ESSENTIELLES.
 EXISTING ESSENTIAL CONNECTIONS.
 - - - LES VOIES AÉRIENNES PERMETTANT LE VOL DE JOUR ET DE NUIT.
 AIR LINES ON WHICH DAY AND NIGHT FLIGHT IS POSSIBLE.
 - - - LES LIAISONS NON EXISTANTES SOUHAITABLES.
 NON EXISTING CONNECTIONS DESIRED.
 - - - BALISAGE PROCHAIN.
 LIGHT SIGNALS TO BE INSTALLED SHORTLY.



S. D. N. (TRANS.) 599

a. — Cette carte est le document même soumis au Comité en 1932. Le Gouvernement italien fait observer que la ligne Milan-Rome doit compter parmi les « liaisons existantes ».
 b. — This map is the actual map submitted to the Committee in 1932. The Italian Government points out that the Milan-Rome Line is now to be reckoned as one of the "existing connections".

[Translation.]

INTRODUCTION.

At the conclusion of its session held from November 10th to 12th, 1931, the Sub-Committee set up by the Air Transport Co-operation Committee to study the "main network of permanent air routes" agreed upon a programme of work comprising, in particular :

(1) The collection, through its members themselves, of documents and opinions relating to the plan of the main network, its ground organisation and operation ;

(2) An investigation based on the foregoing information, which the Sub-Committee decided to entrust to me.

The programme of this investigation was as follows :

(a) Present methods of operating air communications in the proposed international network ;

(b) Programme and cost of the installation and working of the ground organisation for the network ;

(c) Minimum operation programme, taking account of the economic possibilities of the network and calculating successfully the effect of new agreements for pooling between companies, of a network in which all overlapping of operating services is avoided, and, assuming these two requisites to be attained, of new material closely adapted to the nature and extent of the air traffic.

The information which the members of the Sub-Committee were to transmit to the Secretariat was received in the early months of 1932. Unfortunately, in so far as these documents and opinions were intended to serve as a basis for my work, I soon found that they would not be of much assistance to me in carrying out the investigation. Only four members of the Sub-Committee stated their views on the principal point—namely, "the most rational operation programme of the main network, taking into consideration existing statistics"—while one of the four pointed out, and rightly so, that these statistics were of very little value, as they were based on the use of materials which were more or less well adapted to the various services and lines.

In the meantime, the Sub-Committee was convened at Geneva in connection with the Conference for the Reduction and Limitation of Armaments, and, on May 6th and 7th, 1932, it was obliged, without having at its disposal any preliminary report, to give its opinion on the plan, ground organisation and operation of the so-called "main" network. The Committee, which met from May 9th to 12th, inserted the conclusions and opinions of the Sub-Committee in its final report, explaining, however, that the map of the "main network" submitted by the Sub-Committee (*Map A attached*) would serve, "if necessary, after revision", as a basis for its further enquiries. Although the examination of the question by the Sub-Committee and afterwards by the Committee was necessarily very brief, the problem with which your Rapporteur was called upon to deal was no longer intact.

Nevertheless, it was by no means elucidated. I therefore concluded that my work would be very much more useful if, before embarking upon the investigation entrusted to me, I endeavoured to collect, for European commercial aviation, statistical and technical information clearly showing the economic and financial results of the traffic.

I accordingly proposed the despatch of two questionnaires.

The first questionnaire, which was intended for the International Air Traffic Association (I.A.T.A.) and was officially communicated to it, read as follows :

1. Definition of the various kinds of agreements between contractual air transport companies (pools or more limited agreements for joint operation or simply for representation).
2. List of pools and agreements registered by or known to the I.A.T.A., with a list of companies parties thereto and of the air services to which they relate.
3. If possible, examples (naturally of a general nature) of the terms of the agreements.

After considering the matter, the I.A.T.A. stated that it was not in a position to reply to the questionnaire.

The second questionnaire, which was primarily intended only for countries whose nationals are members of the Committee, was subsequently also sent to the Governments of other European countries. This questionnaire is reproduced below :

QUESTIONNAIRE.

Total resources, in the case of each country, of subsidised air services within the territorial limits of the " main network " studied by the Committee—*i.e.*, continental Europe and the Mediterranean basin as far as Istanbul, Beirut and Alexandria on the east, and Casablanca on the west.

I. RESOURCES OF NON-COMMERCIAL ORIGIN.

A. Annual resources (for the last three budget years), distinguishing, if possible :

(1) Annual resources derived from the State budget, and made available :

(a) For subsidies, mileage premiums and mail subsidies (paid to the enterprises concerned) ;

(b) For ground organisation and working operations (not paid to the air transport companies) ;

(2) Annual resources derived from budgets other than the State budget (federal States or cantons, cities, colonies, protectorates or mandated territories) (distinguishing (a) and (b) as under 1 above) ;

(3) Annual resources derived from public bodies not of an administrative character (chambers of commerce, etc.).

B. Exceptional resources or contributions (after the establishment of the enterprises) :

(1) Participation of the State or of various public bodies in the capital of the enterprises (initial capital or increase of capital) ;

(2) Guarantee for bond issues (and, in such case, the date and amount of the issues).

It would be desirable to know the actual amount of the capital (shares and debentures) of each enterprise undertaking contractual air services.

II. COMMERCIAL RECEIPTS (for the last three years of operation).

The constituent elements of these receipts to be shown *in the case of each line*, distinguishing :

- Passenger transport ;
- Goods transport and excess luggage receipts ;
- Mail transport ;

and indicating, if possible, in the case of each category :

- The actual quantities transported ;
- The kilometric quantities (passenger-kilometres and ton-kilometres) produced ;
- The corresponding receipts ;
- The coefficient of utilisation of the communications in question (relation of the number of kilometric tons utilised to the number of kilometric tons offered).

III. TARIFFS.

Variation during the three years under consideration of the air transport tariffs.

Accompanying variation of competing transport tariffs (land or sea transport).

The variation in question is, of course, the variation in the basic tariffs (per kilometre, per kilogramme or per given quantity of mail) and not the variation of tariffs in the case of each line. Where, however, in the case of particular lines, there are tariffs which are appreciably different (higher or lower) from the general tariff, in order to take account of local conditions, it would be desirable to give particulars.

Actually, all the countries concerned replied to this questionnaire, but, on the one hand, the replies were received at intervals from February to November 1933, and, on the other, the questionnaire does not appear to have been sufficiently precise to prevent diverse interpretations. Moreover, it had been feared that the figures relating to the same category of freight, disbursements or receipts might not be homogeneous in each country and might in some cases be difficult to compare—and this was, in fact, the case. Lastly—and this was the chief difficulty—the more or less complete nature of the replies given by the administrations consulted, and, in some cases, by the transport companies concerned, depended on whether certain information was to be regarded as confidential or not.

For all these reasons, the information given in the following report can only be approximately correct, and, on some points of detail, it amounts to an interpretation. However, I have, in every case, inserted for reference purposes the figures contained in the replies from the members of the Committee or the administrations consulted in the form in which they were sent to me, even when I have been obliged to transpose them.

Tableau I. — Table I.

TRANSPORT AÉRIEN RÉGULIER DES COMPAGNIES SUBVENTIONNÉES.

REGULAR AIR TRAFFIC OF SUBSIDISED COMPANIES.

Quantités produites (1932). — Quantities produced (1932).

| | Kilomètres | Passagers-km. Passenger-km. | Tonnes-kilomètres Ton-kilometres | | | | Coefficient d'utilisation % Coefficient of utilisation % |
|--|------------|--------------------------------|-------------------------------------|---|---|--|---|
| | | | Passagers Passengers | Messageries Goods | Poste Mails | Total | |
| ALLEMAGNE — GERMANY : Deutsche Lufthansa (Europe). (A) (1) | 7.003.718 | 24.630.175 | 1.970.400 | 1.026.972 <i>840.000</i> | 186.972 <i>186.972</i> | 2.997.372 | 42,5 |
| AUTRICHE — AUSTRIA : « Oelag » (B) (1) | 490.984 | 1.719.732 | 137.600 | 19.400 | 3.871 | 160.871 | 56 |
| BELGIQUE — BELGIUM : « Sabena » (1) | 1.140.380 | 2.093.240 | 167.440 | 78.893 | 15.075 | 261.408 | 22,5 |
| ROYAUME-UNI — UNITED KINGDOM : (Réseau d'Europe et Londres-Egypte) (European and London-Egypt Lines) (1) | 1.558.480 | 18.891.300 | 1.581.800 | 295.167 | 168.676 | 2.045.643 | 70 |
| DANEMARK — DENMARK : D. D. L. (1) | 244.470 | 678.925 | 54.320 | 15.238 | 8.930 | 78.488 | 42 |
| ESPAGNE — SPAIN : L. A. P. E. (A) (1) | 609.800 | 2.900.400 | 232.000 | 36.520 <i>18.000</i> | 18.520 | 268.520 | 46 |
| FINLANDE — FINLAND : « Aero O. Y. » (C) (1) | 257.440 | 609.310 | 48.720 | 14.040 | 10.157 | 72.917 | 56 |
| FRANCE : (Réseau d'Europe) (European Network) (1) | 6.793.423 | 20.143.949 | 1.611.520 | 567.983 | 164.492 | 2.343.995 | 51 |
| GRÈCE — GREECE : S. H. C. A. (E. E. E. S.) (2) | 389.525 | 2.882.445 | 230.592 | 36.329 | 2.678 | 269.299 (275.810 d'après réponse — according to reply) | 66 |
| HONGRIE — HUNGARY : « Malert » (1) | 121.000 | 586.910 | 46.960 | 3.545 | 4.200 | 54.705 | ? |
| ITALIE — ITALY : (Réseau d'Europe) (European Network) (1) | 4.560.118 | 16.768.750 | 1.341.440 | (avec bagages) 301.892 (including baggage) | (avec journaux) 138.806 (including newspapers) | 1.782.338 | 41 |
| PAYS-BAS — NETHERLANDS : K. L. M (Réseau d'Europe) (European Network) (1) | 1.271.623 | 5.071.988 | 405.760 | 237.669 | 47.396 | 690.825 | 47,2 |
| POLOGNE — POLAND : P. L. L. « Lot » (2) | 1.187.684 | 2.859.879 | 228.800 | 86.612 | 10.463 | 325.875 | 40 |
| ROUMANIE — ROUMANIA : L. A. R. E. S. (D) (1) | 198.360 | 370.000 | 29.520 | 6.450 | 20 | 36.000 | ? |
| SUÈDE — SWEDEN : A. B. A. (2) | 411.661 | 1.951.000 | 156.080 | 55.490 | 41.835 | 253.405 | 60,5 |
| SUISSE — SWITZERLAND : (Swissair) (Réseau international) (International Network) . . . (A) (3) | 670.436 | 2.012.845 | 161.024 | 37.195 <i>25.000</i> | 12.195 | 198.219 | 39 |
| TCHÉCOSLOVAQUIE CZECHOSLOVAKIA (2) | 940.451 | 2.073.807 | 165.604 | 74.690 | 4.139 | 244.433 | 31,3 |
| YUGOSLAVIE — YUGOSLAVIA . . . (1) | 241.425 | 342.991 | 27.440 | 6.928 | 527 | 34.895 | 39 |
| U.R.S.S. — U.S.S.R. : 1931 (« Deruluft ») (B) (3) | 981.000 | 2.750.000 | 220.000 | 65.000 | 18.000 | 302.940 | 50 env. approx. |
| Ensemble territorial considéré Whole area considered | 29.071.978 | 109.337.646 | 8.817.020 | 2.748.326 | 856.652 | 12.421.998 | |

Les valeurs imprimées en italiques sont incertaines.

Figures in italics are uncertain.

(1) D'après les renseignements transmis à la Société des Nations.
 (2) D'après les statistiques publiées par la Commission internationale de Navigation aérienne (C. I. N. A.)
 (3) De sources diverses ou d'après les compagnies intéressées.
 (A) Décomposition arbitraire de l'ensemble (messageries + poste) en tonnes-kilomètres, seul communiqué.
 (B) Distribution de la quantité totale de tonnes-kilomètres transportées (seule communiquée), en déterminant le parcours moyen, puis en l'appliquant aux diverses quantités de fret, également connues. A noter que l'Autriche ne compte comme bagages, dans ses statistiques de fret, que les excédents payants.
 (C) La Finlande indique les quantités kilométriques produites par le seul fret payant.
 (D) Estimation arbitraire du trafic kilométrique global, d'après longueur du réseau, longueur des étapes et quantités de fret ; décomposition de ce chiffre proportionnellement aux quantités de fret par catégorie.

(1) According to information transmitted to the League of Nations.
 (2) According to statistics published by the International Commission for Air Navigation (C. I. N. A.)
 (3) From various sources or according to the companies concerned
 (A) Arbitrary division of the total (goods + mails) in ton-kilometres, this being the only figure communicated.
 (B) Division of the total quantity of ton-kilometres carried (the only figure communicated) by determining the average distance travelled and applying it to the different quantities of freight, which are also known. It should be noted that, in her freight statistics, Austria only includes as baggage the excess weight subject to charges.
 (C) Finland gives the kilometric figures produced only by freight subject to charges.
 (D) Arbitrary estimate of aggregate kilometric traffic, on the basis of the length of the system, the length of the stages and the quantities of freight ; division of this figure in proportion to the quantities of freight per category.

CHAPTER I.

TRAFFIC RESULTS OBTAINED IN EUROPE FROM 1930 TO 1932 INCLUSIVE BY THE CONTRACTUAL AIR TRANSPORT COMPANIES.

By the term "Europe" is meant the land and sea area taken into consideration by the Sub-Committee in studying the "permanent network". This restriction has, in several cases, made it necessary to split up certain traffic results and include only a part thereof in our tables or graphs. The uncertain figure in respect of these results is printed in italics, its source being indicated, in the table or graph.

As a whole, it has been possible to calculate accurately the traffic results in kilometric tons per category of freight for 1932. These figures, which have been summarised in *Table I*, have served as a basis for my interpretation of the development of the traffic in quantities. (See *Table I* attached.)

As regards the financial results (subsidies and receipts from customers), the replies received were usually very complete and very definite. Unfortunately, Germany gave only the approximate total for subsidies and a percentage of that figure for receipts from customers, which I have endeavoured to analyse more fully. The United Kingdom gave the exact amounts of the aggregate subsidies, but was only able to furnish the total (subsidies plus traffic receipts) for European or long-distance lines as a whole. Lastly, Italy, which supplied the particulars requested in greater detail, only did so as regards the lines of her system coinciding with the lines included in the "main network" studied by the Sub-Committee. Therefore, in the case of three out of the four countries which, from the point of view of the quantities of traffic produced in the network under consideration, are of much greater importance than all the rest, the data at the disposal of the Rapporteur were uncertain.

In any case, the financial results are dealt with in the three *Tables II, III, IV* (see inside of folder opposite), each covering one year. In compiling these documents, the two values of each amount, in national currency and in French francs, have been placed side by side, with a view to the insertion of a comparable total for each category of receipts. (Exchange value: October of the year under review¹; see *Recapitulatory Table V*.)

Lastly, on the basis (1) of the quantities of freight (produced and utilised) in kilometric tons and (2) of the revenue of the companies (subsidies and receipts from customers) in French francs, the trend of these results, from 1930 to 1932 inclusive, has been indicated in *Graphs 1* and *2*.

Approximate, and sometimes even conjectural, values are given in too many cases in these documents. I shall be pleased to receive corrected figures from the authorities concerned. Nevertheless, even as they stand, these estimates and values represent (with a very tolerable coefficient of error) *facts which it had hitherto been impossible to compare properly*.

¹ The Italian Government has rightly pointed out that, if the annual average exchange rate is adopted, a more reliable—even though the difference is very slight—factor of comparison is obtained. I have not thought it necessary to recalculate each figure in *Table II* for the final edition of the Report.

The Rapporteur therefore draws the Sub-Committee's special attention to *Graphs 1 and 2*. The necessary explanations accompany each graph.

* * *

Table V.

EXCHANGE VALUES ADOPTED.

| Pays | Monnaie nationale et abréviation adoptée National currency and abbreviation adopted | Quantité correspondant à 100 francs français Amount corresponding to 100 French francs | Country | | | |
|---------------------------|--|---|--------------------------------------|------------------------------------|------------------------------------|------------------------------------|
| | | | Parité-or Gold parity | Octobre 1930 October 1930 | Octobre 1931 October 1931 | Octobre 1932 October 1932 |
| ALLEMAGNE . . . | Reichsmark (RM) 100 | 608,01 | 606,50 | 610 | 610 | GERMANY. |
| AUTRICHE . . . | Schilling (S) 100 | 359,15 | 360 | 360 | | AUSTRIA. |
| BELGIQUE . . . | Franc belge } (f. b.) Belgian franc } 100 | | 71,10 | 71,069 | 70,783 | BELGIUM. |
| ROYAUME-UNI . . . | Livre sterling } (£) Pound sterling } 1 | 124,21 | 123,83 | 98,854 | 86,6728 | UNITED KINGDOM. |
| DANEMARK . . . | Couronne danoise } (c. d.) Danish crown } 100 | 684,02 | 680,50 | 558,708 | 449,333 | DENMARK. |
| ESPAGNE . . . | Peseta (pes.) 100 | 492,49 | 264,50 | 227,385 | 208,639 | SPAIN. |
| FINLANDE . . . | Mark finlandais } (m. f.) Finnish mark } 100 | 64,28 | 64,25 | 51,25 | 37,25 | FINLAND. |
| FRANCE | Franc français } (f. f.) French franc } 100 | | Monnaie de base Standard currency | | | FRANCE. |
| GRÈCE | Drachme } (dr.) Drachma } 100 | 33,12 | 33,25 | 33,25 | 33,25 | GREECE. |
| HONGRIE | Pengö (P.) 100 | 446,41 | | 445 | | HUNGARY. |
| ITALIE | Lire } (l.) Lira } 100 | 134,34 | 133,40 | 130,763 | 130,397 | ITALY. |
| NORVÈGE | Couronne norvégienne } (c.n.) Norwegian crown } 100 | 684,02 | 680,50 | 569,812 | 437,714 | NORWAY. |
| PAYS-BAS | Florin (fl.) 100 | 1.025,95 | 1.028 | 1.027,10 | 1.024,60 | NETHERLANDS. |
| POLOGNE | Zloty (zl.) 100 | 286,33 | 285,50 | 284,25 | 285,666 | POLAND. |
| ROUMANIE | Lei (lei) 100 | 15,27 | 15,15 | 15,155 | 15,19 | ROUMANIA. |
| SUÈDE | Couronne suédoise } (c. s.) Swedish crown } 100 | 684,02 | 684,50 | 589,685 | 447,80 | SWEDEN. |
| SUISSE | Franc suisse } (f. s.) Swiss franc } 100 | 492,49 | 494,75 | 497,341 | 491,704 | SWITZERLAND. |
| TCHÉCOSLOVAQUIE | Couronne tchécoslov. } (c.t.) Czechoslovak crown } 100 | 75,62 | 75,60 | 75,21 | 75,483 | CZECHOSLOVAKIA. |
| YUGOSLAVIE | Dinar (din.) 100 | 44,95 | 44,50 | 45,07 | | YUGOSLAVIA. |

Tables II, III and IV have also served as a basis for a second task, the determination of indices showing, in the form of a percentage, the extent to which the enterprise is becoming independent of State subsidies. The *index percentages* P_1 , P_2 ,

P_3 have been calculated for each country and each year on the basis of the receipts from customers and subsidies. They have been shown on the right of each of the tables II, III and IV.

INDEX P_1 .

The first index, P_1 , represents the ratio between receipts from customers (solely as regards the regular contractual transport services) and the State subsidy. The companies receive other receipts and, in many cases, other subsidies. Both have been eliminated. By definition :

$$P_1 = \frac{\text{Receipts from customers}}{\text{Subsidies}}$$

for the figures given under these heads in *Tables II, III and IV*.

If, therefore, $P_1 < 1$, the subsidies of the air service in question still exceed its receipts; and if $P_1 > 1$, the service has completed the first stage, at which subsidies and receipts from customers are equal.

In 1930, no country in Europe had advanced so far. The Netherlands had almost reached this milestone with $P_1 = 0.96$, and no doubt had *previously* passed beyond it.

In 1931, the United Kingdom ($P_1 = 1.05$), Finland ($P_1 = 1.25$), and the Netherlands ($P_1 = 1.48$) completed this stage.

In 1932, only these three countries had attained this advanced stage. P_1 was equal to 1.8 in the United Kingdom and to 1.59 in Finland, while the Netherlands index had fallen slightly to 1.43. After them came Sweden (0.46) and Germany (0.43). The French ratio was 0.26, the Italian barely 0.07, and the Polish ratio 0.08.

The average for Europe was $P_1 = 0.35$.

* * *

INDEX P_2 .

$$P_2 = \frac{\text{Receipts from customers}}{\text{Total revenue}}$$

This ratio, which is ascertained less frequently than the former, possibly because it is necessarily less favourable in appearance, shows the extent of financial autonomy achieved by the system in question *vis-à-vis* the State; if $P_2 = 1$, this means that the subsidy has ceased and that the revenue is obtained solely from receipts from customers.

Naturally, no national air lines in Europe have yet reached that stage. However, in 1931 and 1932, the three countries for which $P_1 > 1$ necessarily show for P_2 a ratio in excess of 0.5 :

| | P_1 (1931) | P_2 (1932) |
|------------------------|--------------|--------------|
| Finland | 0.556 | 0.614 |
| United Kingdom | 0.512 | 0.642 |
| Netherlands | 0.596 | 0.589 |

In 1932 :

| | |
|-------------------------------|---------------|
| The Swedish ratio was | $P_2 = 0.316$ |
| The German ratio was | $P_2 = 0.301$ |
| The French ratio was | $P_2 = 0.203$ |
| The Polish ratio was | $P_2 = 0.073$ |
| The Italian ratio was | $P_2 = 0.064$ |

The average for Europe is $P_2 = 0.247$.

* * *

INDEX P_3 .

$$P_3 = \frac{\text{Subsidy}}{\text{Total revenue}}$$

P_3 is therefore equivalent to $\frac{P_1}{P_2}$ and
 $P_2 + P_3 = 1$.

In other words, P_3 represents, in the form of a percentage, the difference between P_2 and the unit. Consequently, assuming that the accounts of the enterprise are reduced to the factors taken into consideration in this report, P_3 represents as a percentage the *distance* which the enterprise has still to cover in order to achieve financial autonomy.

From this standpoint, the most striking progress is that made by *Imperial Airways*.

| | Distance remaining to be covered | | | Gain (+) or Loss (-) |
|---------------------------------|----------------------------------|-------------------|-------------------|----------------------------|
| | % P_3 (1930) | % P_3 (1931) | % P_3 (1932) | |
| United Kingdom.. .. . | 69 | 49 | 36.7 | + 33.3 |
| Finland.. .. . | 53 | 44 | 38.5 | + 14.5 |
| Netherlands.. .. . | 51 | 40 | 41 | + 10 |
| Sweden.. .. . | 63 | 66 | 68.3 | — 5.3 |
| Germany (without "Deruluft") .. | 63 | 69 | 70 | — 7 |
| France | 80 | 82 | 80 | 0 |
| Poland | 89 | 90 | 94 | — 5 |
| Italy | 96 | 95.5 | 93 | + 3 |
| Europe (average) | 68.6 | 70 | 67.3 | + 1.3 |

Hence, according to this index, and *assuming that financial autonomy is the goal in view*, I may say that, at the end of 1932, United Kingdom enterprises had gone nearly two-thirds of the way, the German enterprises two-fifths, the French enterprises one-fifth, the Italian enterprises one-fifteenth, and air transport in Europe as a whole nearly one-third.

These results have been obtained in from ten to twelve years.

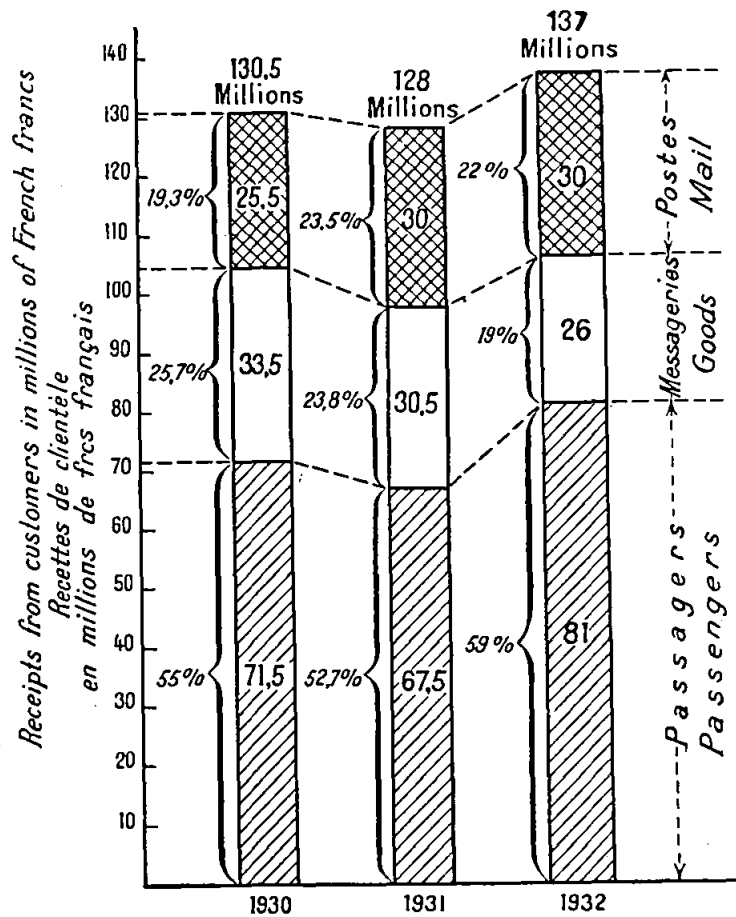
RESPECTIVE VALUES OF THE VARIOUS TYPES OF FREIGHT.

Attention was next paid—again on the basis of *Tables II, III and IV*—to the apportionment by categories of freight of the receipts from customers obtained on the European system. This is shown in *Graph 3*, which indicates, in absolute figures and percentages, the contribution of each type of freight to the aggregate financial result.

There is a fairly definite tendency towards a slight increase in the quantity of mail carried, accompanied by a more marked decline in receipts from goods; there is a definite increase in receipts from passengers which, in 1932, amounted to *three-fifths of the total receipts* (this proportion must have been even higher in 1933). The general statistics for the period 1926-1929 showed that the transport of passengers represented, *in weight*, approximately 70 per cent of the traffic; in 1932, this freight represented in *kilometric tons* 71 per cent of the quantity of freight utilised. It forms the principal freight carried by air in Europe.

Graph 3.

CLASSIFICATION OF RECEIPTS FROM CUSTOMERS IN 1930, 1931 AND 1932.
The percentages for each year are shown laterally.



For 1932, the proportions between the quantity utilised and the receipts were as follows :

| | Ton-kilometres carried | % | Approximate receipts (in francs) | % | Receipts per ton-kilometre |
|----------------------|------------------------|------------|----------------------------------|------------|----------------------------|
| Passengers.. | 8,803,228 | 71 | 81,000,000 | 59 | 8 francs 75 |
| Goods | 2,747,052 | 22 | 26,000,000 | 19 | 8 francs 95 |
| Mail | 851,052 | 7 | 30,000,000 | 22 | 34 francs |
| | 12,401,332 | 100 | 137,000,000 | 100 | |

This table shows (last column) the average receipts per *ton-kilometre carried*. These tally remarkably closely with the figures given by the specialists. Certainly passenger receipts are usually reckoned at from 11 to 12 francs per ton-kilometre and goods receipts at 10 francs, but my result simply shows the effect of free transport or reduced rates granted to passengers and of the free transport of hand-luggage at the rate of from 12 to 20 kg. per passenger.

These specific receipts and proportions determine for a given stage of technique and the system under consideration, the receipts from customers obtainable by air transport enterprises in Europe. There merely remains to be considered the question of the extent to which the total revenue might be increased if the utilisation of the tonnage offered by aircraft were also increased. The reply to this question is given in *Graph 4*.

The percentages of utilisation of the tonnage offered by the air transport enterprises have been given in this document for 1930, 1931 and 1932. They show that the average coefficient rose from 37.3 to 41.7 and subsequently to 46 per cent.¹

All the percentages vary between 25 and 70 per cent. Apart from the Greek system, which only came into operation a short time ago (but which, using German material, shows remarkable technical efficiency), the United Kingdom, Sweden and Finland have the best coefficients—two of these countries having been included in the first group for the P_2 index (financial independence). This shows that those services are efficiently run, but there is not necessarily any relation of cause and effect, since many other variable factors (low tariffs, free transport, ample landing-grounds, etc.) may play their part.

However, it is interesting to note that, with aircraft carrying a load of 62 per cent of their capacity, the United Kingdom has a P_2 index equal to 64.2 per cent, and Finland, with a load of 56.4 per cent of capacity, a P_2 index of 61.4 per cent. The Netherlands has an index of 59 per cent with aircraft carrying a load of only 42.5 per cent of their capacity. Hence, *if the aircraft of the first two countries carried a complete load,² they would, theoretically speaking, no longer need a subsidy, while the aircraft of the K.L.M. would be independent if they were loaded to 75 per cent of their capacity.* This proves that, from an economic standpoint, these lines are operated very efficiently.

France, whose aircraft carry 51 per cent of their capacity and have an "independence index" of 20.3 per cent, still has a long way to go. Germany (42 per cent load and 30 per cent index) is nearer to the goal. Poland and Italy have an index of only 7.3 and 6.4 per cent, with aircraft carrying a load of 40 per cent and 41 per cent of their capacity; their lines are not operated economically.

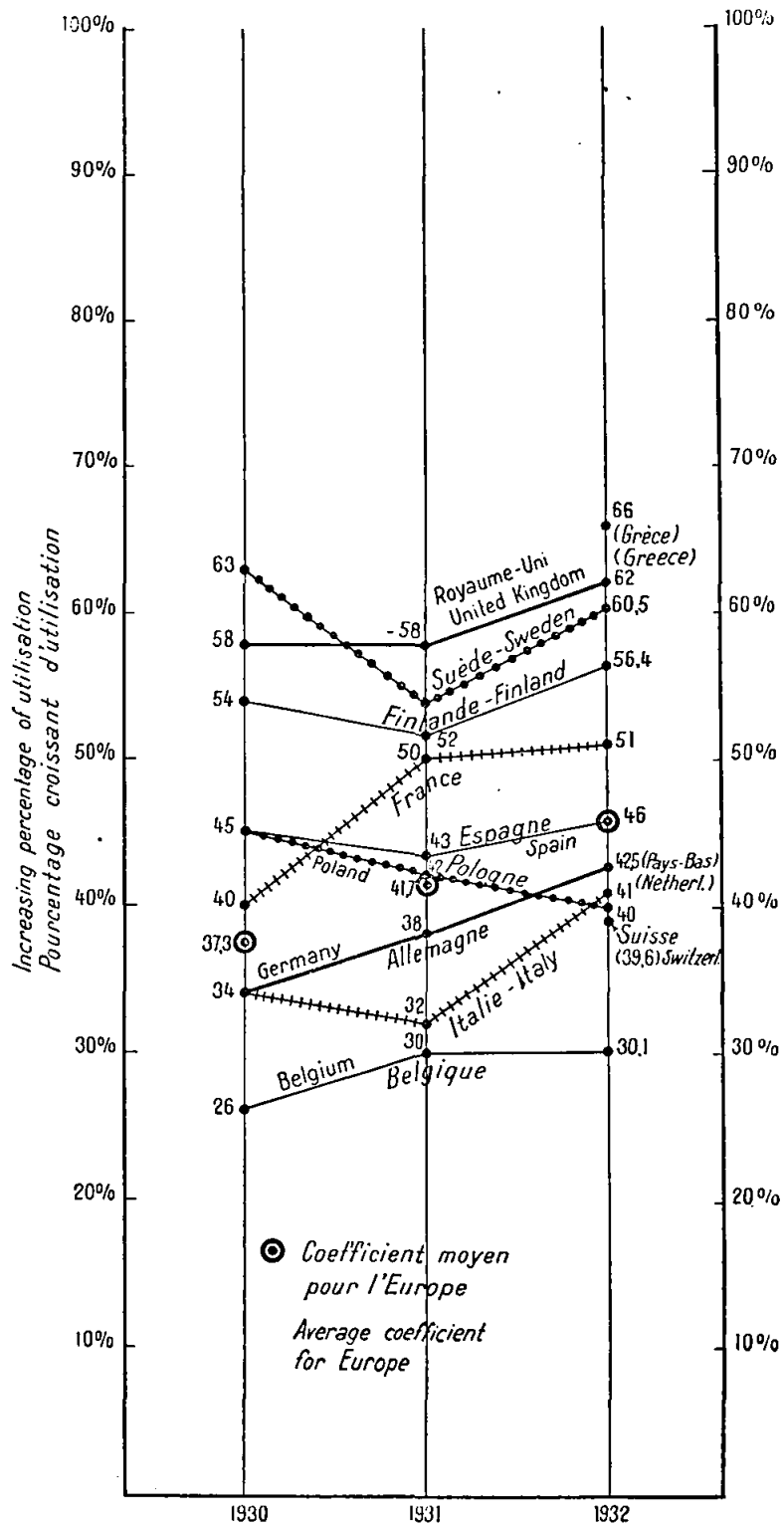
Consequently, in the case of several of the principal European enterprises, an increase in the utilisation of tonnage might have a decisive effect, *provided tariffs remained unchanged*. I am already justified in thinking that the problem of unsubsidised air transport in Europe, or at least in certain parts of Europe, is not a contradiction in terms. It is a matter of efficient technique—but, on the lines already laid down, of sound organisation—but examples already exist. I have not mentioned political conditions or the effect of artificial competition based on subsidies.

¹ These coefficients of utilisation may sometimes be very deceptive. Owing to the difficulty of certain routes and the distance between landing grounds, a high coefficient of utilisation (60 to 70 per cent) may correspond—particularly in the case of certain European seaplane lines—to the transport of a very small quantity of freight (25 to 100 kg.).

² This is a purely theoretical assumption, but it is nearer to the truth in the case of aviation than as regards any other means of public transport, in view of the elasticity of air transport and the small weight-carrying capacity of the average aircraft.

Graph 4.

COEFFICIENTS OF UTILISATION OF TONNAGE, FROM 1930 TO 1932.



N.B.—The Italian Government has corrected the utilisation coefficient for 1931 to 34.2%.

CHAPTER II.

RESOURCES EMPLOYED AND HOW THEY ARE USED.

After setting forth with a sufficient degree of accuracy the traffic results obtained by the European system under consideration, the trend of its financial results and, lastly, the degree of financial independence of each enterprise and of the system as a whole, as shown on paper (if not achieved), I now have to consider the means by which these results have been brought about.

Financial Resources : Share capital, State subsidies and other Government and official assistance granted to contractual air transport enterprises.

Technical Resources, confined to personnel—especially flying personnel—and material ; parks for aeroplanes and seaplanes belonging to the companies.

I shall next examine, first from an absolute and then from a relative standpoint, the results obtained by the enterprises in the more or less artificial situation in which they are placed.

The chief results will be recapitulated in a final table and the main conclusions drawn.

* * *

I. CAPITAL INVESTED IN AIR TRANSPORT BY EUROPEAN ENTERPRISES UNDERTAKING CONTRACTUAL SERVICES.

These data are summarised in *Table VI* (see opposite).

This table has several defects. Some of the figures are too large, inasmuch as several of the most important companies run extra-European services ; otherwise they would not have needed so much share capital.

The table is also inaccurate, inasmuch as certain enterprises which are purely State organisations operate without any share capital, their requirements being met simply by means of appropriations in the budget.

Its most serious defect is that the term “share capital” is incongruous when applied to enterprises which are so highly subsidised that, without the renewal of public credits each year, their share capital would be swallowed up—as regards the European system as a whole—at the end of fourteen or fifteen months’ running operations.

It is more reasonable to regard these private investments (433 million French francs, after deducting State participations) as the *security* deposited by the private interests entrusted with the operation of the lines, in return for this concession. The true capital on which the enterprises in question exist is the substantial mass of private wealth—taken from its owners by taxation—the annual income from which corresponds to the total annual subsidy.

Table VI.

CAPITAL INVESTED IN COMPANIES FOR CONTRACTUAL AIR TRANSPORT.

- I. Total share capital.
 II. Capital invested by the State (or by administrative bodies) (if any).

| | En monnaie nationale In national currency | | En fr. français (valeur de change octobre 1932) In French francs (exchange value, October 1932) | |
|--|--|--|--|-------------------------------|
| | Capital global Total capital | Part de l'Etat State share | Capital global Total capital | Part de l'Etat State share |
| ALLEMAGNE — GERMANY. D. L. H. | 25.000.000 RM | 6.500.000 RM | 152.500.000 | 39.650.000 |
| AUTRICHE — AUSTRIA « Oelag » | 400.000 S | Néant — Nil | 1.440.000 | Néant — Nil |
| BELGIQUE — BELGIUM (1) « Sabena » | 20.000.000 f. b. | 10.000.000 f. b. | 14.140.000 | 7.070.000 |
| ROYAUME-UNI UNITED KINGDOM } . « Imperial Airways » | £1.000.000 dont £624.080 émises of which issued | £25.000 | 86.672.800 | 2.166.800 |
| DANEMARK — DENMARK D. D. L. | 445.000 c. d. | 220.000 c. d. | 1.999.385 | 998.460 |
| ESPAGNE — SPAIN L. A. P. E. | 2.650.000 pes. | 2.650.000 pes. | 5.527.900 | 5.527.900 |
| FINLANDE — FINLAND « Aéro O. Y » | 2.000.000 m. f. | | | |
| | 120.000.000 f. f. | | 120.000.000 | |
| FRANCE. « Air France » | L'Etat reçoit en actions de jouissance, sans valeur nominale, 25% du capital-actions de la Société. The State receives 25% of the share capital of the company in shares of no par value. | | | |
| GRÈCE — GREECE. E. E. E. S. | 28.500.000 dr. | Néant (2) Nil | 9.462.000 | Néant — Nil |
| HONGRIE — HUNGARY. « Malert » | 250.000 pengö | Néant — Nil | 1.112.500 | " " |
| ITALIE — ITALY . « Sta Aerea Mediterranea » | 18.000.000 l. | Part non précisée Share not indicated | 23.454.000 | " " |
| ITALIE — ITALY S. A. N. A. | 12.000.000 l. | Néant — Nil | 15.636.000 | " " |
| ITALIE — ITALY « Avio Linee » | 4.000.000 l. | " " | 5.212.000 | " " |
| ITALIE — ITALY « Aero Espresso » | 5.000.000 l. | " " | 6.515.000 | " " |
| ITALIE — ITALY S. I. S. A. | 5.000.000 l. | " " | 6.515.000 | " " |
| PAYS-BAS — NETHERLANDS K. L. M. | 4.353.200 fl. | 3.000.000 fl. | 44.602.885 | 30.738.000 |
| POLOGNE — POLAND P. L. L. « Lot » | 8.000.000 zl. | 6.880.000 zl. | 22.848.000 | 19.677.000 |
| ROUMANIE — ROUMANIA. . . . L. A. R. E. S. | Entreprise d'Etat sans capital déclaré. — State undertaking with no declared capital. | | | |
| SUÈDE — SWEDEN. A. B. A. | 584.000 c. s. | Néant — Nil | 2.615.150 | Néant — Nil |
| SUISSE — SWITZERLAND « Swissair » | 800.000 f. s. | " " | 3.933.600 | " " |
| TCHÉCOSLOVAQUIE — CZECHOSLOVAKIA C. S. A. | Entreprise d'Etat sans capital déclaré. — State undertaking with no declared capital. | | | |
| TCHÉCOSLOVAQUIE — CZECHOSLOVAKIA C. L. S. | 8.000.000 c. t. | Néant — Nil | 6.032.000 | Néant — Nil |
| U. R. S. S. et ALLEMAGNE } . « Deruluft » | 1.300.000 RM | " " | 7.930.000 | " " |
| U.S.S.R. and GERMANY | | | | |
| YUGOSLAVIE — YUGOSLAVIA . « Aeroput » | 9.000.000 din. | Néant (?) Nil | 4.050.000 | " " |

(1) Plus a guarantee by the State and Colony for 39,080,000 f. b. of debentures.

(2) The State guarantees interest of 8 per cent in the share capital of the company.

2. DIRECT ANNUAL SUBSIDIES.

These data are summarised in *Table VII* (see opposite).

This table is practically complete and, in most cases, accurate, at least as regards the values in national currency; as regards the exchange values adopted for the conversion of these amounts into French francs, it was not possible to take account of variations in the cost of living and the local purchasing power of the currency.

In any case, the total for each year is fairly reliable. I do not think, however, that the falling-off in 1932 as compared with 1931 (417 millions against 442—*i.e.*, roughly 6 per cent) is of any real significance, as the marked decline in sterling and the European currencies attached to sterling had a considerable effect on certain exchange values, but affected to a much smaller extent the purchasing power in the home markets, where the majority of the expenditure is incurred.

Moreover, it is quite possible that the subsidies inserted in *Table VII* may not cover all the public credits granted for the assistance of companies. In Germany, the subsidies of the States and towns, which were much smaller from 1930 to 1932 than from 1925 to 1929, must still be in the neighbourhood of 2 million RM. a year. In several countries, special credits have been voted for the acquisition of material. Elsewhere, loan funds with a very low rate of interest have been constituted; in other countries again, the State has had certain model aircraft built—sometimes three or four—which have subsequently been transferred to the enterprises by a hire-purchase system, under which the State has recovered only one-third or one-fourth of its outlay.

In particular, the methods by which mileage subsidies are granted, the cost of mail transport is refunded, lump-sum payments in respect of mail transport are calculated and surtaxes are payable to the carrier or not, vary so greatly that it is impossible for a single table to cover this question.

In conclusion, I consider that contractual air transport enterprises in the territorial area in question received, from 1930 to 1932 inclusive, some 1,500 million French francs in the form of direct subsidies—*i.e.*, on an average, 500 million francs a year.

3. OTHER STATE EXPENDITURE ON BEHALF OF CONTRACTUAL AIR TRANSPORT ENTERPRISES.

Notwithstanding the definite information asked for on this point in the basic questionnaire, the replies received were inadequate. This was inevitable, in view of the diversity of budgetary methods and, in particular, the fact that, as regards expenditure on so-called "ground organisation", no distinction is made in several countries between the requirements of civil aviation and those of military aviation. Moreover, in the case of certain countries where these credits are usually combined, the total figure entered in the budget was not communicated to me.

Table VIII has therefore been drawn up under these conditions.

It will be noted that, in the case of each country, I have stated as far as possible how the credits are allocated. These brief particulars are sufficient to show that the table has by no means exhausted the question of *expenditure (other than direct subsidies) on behalf of air transport*. The greater part of the running expenses of the ground organisation (personnel, watchmen, electric power, etc.), which are nearly always borne by the State, and also the cost of the central offices responsible for management and supervision set up in Europe as a result of the development of air transport, should be added to the figure given.

✓ Tableau VII. — Table VII.

SUBVENTIONS DIRECTES AU TRANSPORT AÉRIEN PUBLIC DANS LE CADRE TERRITORIAL EUROPÉEN CONSIDÉRÉ
DIRECT SUBSIDIES TO PUBLIC AIR TRAFFIC IN THE EUROPEAN TERRITORIAL AREA UNDER CONSIDERATION.

| Pays Country | Compagnies Companies | 1930 | | 1931 | | 1932 | |
|--|--|---|--|--|--|---|--|
| | | En monnaie nationale In national currency | En francs français In French francs | En monnaie nationale In national currency | En francs français In French francs | En monnaie nationale In national currency | En francs français In French francs |
| ALLEMAGNE — GERMANY | Deutsche Lufthansa A. G. (réponse officielle) (official reply) | 16.000.000 RM. | 96.960.000 | 15.800.000 RM | 96.380.000 | 14.100.000 RM. | 86.010.000 |
| AUTRICHE — AUSTRIA | Oest. Luftv. A. G. (réponse officielle) (official reply) | 2.117.250 S. | 7.622.100 | 2.087.000 S. | 7.513.200 | 1.530.000 S. | 5.508.000 |
| BELGIQUE — BELGIUM | S. A. B. E. N. A. (réponse officielle) (official reply) | 22.873.998 f. b. | 16.263.410 | 24.437.794 f. b. | 17.350.835 | 16.218.522 f. b. | 11.516.200 |
| ROYAUME - UNI — UNITED KINGDOM | Imperial Airways (réponse officielle) (official reply) | £225.000 | 27.861.750 | £200.000 | 19.770.800 | £200.000 | 17.334.400 |
| DANEMARK — DENMARK | Danske Luftfartselska (réponse officielle) (official reply) | 350.000 c. d. | 2.381.750 | 350.000 c. d. | 1.955.450 | 350.000 c. d. | 1.572.550 |
| ESPAGNE — SPAIN | L. A. P. E. (réponse officielle) (official reply) | 3.000.000 pes. | 7.935.000 | 3.450.000 pes. | 7.841.850 | 3.450.000 pes. | 7.196.700 |
| FINLANDE — FINLAND | « Aero O. Y. » (réponse officielle) (official reply) | 2.059.735 m. f. | 1.322.350 | 2.037.400 m. f. | 1.043.150 | 1.943.930 m. f. | 723.140 |
| FRANCE | Air Union | 119.800.000 f. f. (4/5 d'un exercice de 15 mois) (4/5 of a financial year of 15 months) | 119.800.000 | 33.444.115 f. f. | 133.444.115 | 124.829.625 f. f. | 124.829.625 |
| | Air Orient | | | | | | |
| | Lignes Farman Aéropostale | | | | | | |
| | C. I. D. N. A. (réponse officielle) (official reply) | | | | | | |
| GRÈCE — GREECE | S. H. C. A. (E. E. E. S.) - S. A. (réponse officielle) (official reply) | Pas de trafic No traffic | Pas de trafic No traffic | 8.172.943 dr. | 2.713.420 | 18.000.000 dr. (env. — approx.) | 5.976.000 |
| HONGRIE — HUNGARY | « Malert » S. A. N. A. - S. A. M. S. I. S. A. - Aero Expresso | 200.000 pengö | 890.000 | 200.000 pengö | 890.000 | 200.000 pengö | 890.000 |
| ITALIE — ITALY ¹ | Aviolinee Italiane (réponse officielle) (official reply) | 71.776.633 liras | 95.750.030 | 72.730.619 liras | 95.058.920 | 72.565.335 liras | 94.552.630 |
| NORVÈGE — NORWAY | (Aide à D. L. H.) (Subsidy to D.L.H.) | 10.000 c. n. | 68.050 | 10.000 c. n. | 56.080 | 10.000 c. n. | 43.710 |
| PAYS-BAS — NETHERLANDS | K. L. M. (réponse officielle) (official reply) | 861.812 fl. | 8.859.425 | 646.177 fl. | 6.636.885 | 628.044 fl. | 6.431.170 |
| POLOGNE — POLAND | P. L. L. Lot (réponse officielle) (official reply) | 4.565.783 zl. | 13.035.310 | 4.860.000 zl. | 13.812.120 | 5.312.000 zl. | 15.171.070 |
| ROUMANIE — ROUMANIA | L. A. R. E. S. (réponse complémentaire du service officiel) (additional reply from the offi- cial service) | Pas de trafic No traffic | Pas de trafic No traffic | Pas de trafic No traffic | Pas de trafic No traffic | 8.590.000 lei | 1.297.090 |
| SUÈDE — SWEDEN | A. B. A. (réponse officielle) (official reply) | 596.760 | 4.084.820 | 632.530 | 3.729.395 | 1.257.000 c. s. (dont 500.000 c. s. de forfait postal, (including 500,000 c. s. lump payment for mails | 5.628.846 |
| SUISSE — SWITZERLAND | Swissair (réponse officielle) (official reply) | 1.162.068 f. s. | 5.748.750 | 1.516.522 f. s. | 7.541.663 | 1.474.504 f. s. | 7.250.135 |
| TCHÉCOSLOVAQUIE — CZECHO- SLOVAKIA | C. L. S. | 6.784.385 c. t. | 5.128.995 | 10.121.508 c. t. | 7.611.375 | 8.316.000 c. t. | 6.270.265 |
| | C. S. A. (réponse officielle) (official reply) | 6.540.135 c. t. | 4.944.340 | 6.896.466 c. t. | 5.186.140 | 5.485.510 c. t. | 4.136.075 |
| YUGOSLAVIE — YUGOSLAVIA | Aeropot (réponse officielle) (official reply) | 6.646.644 din. | 2.957.755 | 7.531.632 din. | 3.389.235 | 6.276.570 din. | 2.824.455 |
| U. R. S. S. (et ALLEMAGNE) — U.S.S.R. (and GERMANY) | Derluft (réponse privée) (private reply) | 1.614.026 RM. | 9.780.995 | 1.597.929 RM. | 9.747.365 | 1.851.395 RM. | 11.293.510 |
| | Total | | 430.394.830 | Total | 441.671.998 | Total | 416.455.571 |

¹ Les sommes portées ici diffèrent de celles qui figurent dans la réponse officielle et qui étaient relatives à des années budgétaires commençant en juillet. On a arbitrairement divisé par deux ces crédits et additionné, par exemple, la moitié du crédit 1931-32 et celle du crédit 1932-33 pour obtenir la somme portée ici sous 1932.

¹ The sums given here are different from those in the official reply, which related to budgetary years beginning in July. These credits were arbitrarily divided into two parts and, for instance, half the 1931-32 credit and half that for 1932-33 were added together to obtain the sum shown here under 1932.

Table VIII.

EXPENDITURE OTHER THAN DIRECT SUBSIDIES OF EUROPEAN AIR TRANSPORT
IN THE TERRITORIAL AREA UNDER CONSIDERATION.

(Exchange value for October 1931 taken as an average.)

| Country | Expenditure 1932 (+) or average value 1930-1932 (±) | |
|---|---|----------------------|
| | In national currency | In French francs |
| AUSTRIA (ground installation, etc.) | 832,325 S ± | 2,996,370 |
| BELGIUM (ground installation and management) | 11,799,000 B.f. ± | 8,377,290 |
| UNITED KINGDOM (75 % of the " Expenditure on ground organisation ") | £57,803 ± | 5,710,935 |
| CZECHOSLOVAKIA | 3,000,000 C.c. (?) | 2,256,000 |
| DENMARK | | |
| FRANCE (aerodromes, wireless service and signalling, national equipment, contributions from chambers of commerce) | 17,380,000 F. f. ± | 17,380,000 |
| GERMANY (ground organisation and liaisons) | 2,500,000 RM ± | 15,250,000 |
| GREECE (ground installation) | 6,833,000 dr. ± | 2,268,555 |
| HUNGARY | 555,490 pengö (1932-33) | 2,477,485 |
| ITALY | 12,500,000 l. (?) | 16,337,500 |
| NETHERLANDS (ground installation) | 179,211 fl. ± | 1,825,800 |
| POLAND (ground installation and working) | 336,000 zl. ± | 954,910 |
| ROUMANIA | 5,000,000 lei (?) | 755,000 |
| SPAIN (ground installation) | 1,200,000 pes. ± | 2,727,600 |
| SWEDEN (aerodromes and liaisons) | 202,000 S.c. + 105,000 S.f. | 1,190,990 522,165 |
| SWITZERLAND (ground installation and working) | Federal budget; 660,000 S.f. cantons and meteorological. | 3,282,180 |
| YUGOSLAVIA | 2,000,000 din. (?) | 900,000 |
| | | 85,212,820 |

Taking into account these disbursements, we consider that, roughly, 150 million francs should be added as supplementary State expenditure to the 500 millions of direct annual subsidies, instead of the 85 millions odd shown in *Table VIII*.

4. FLYING MATERIAL, FLYING PERSONNEL, OTHER PERSONNEL.

The annual statistics of the United Kingdom *Air Ministry*, interpreted and corrected so as to confine them to the system under consideration, show that the following material was used by the regular air transport enterprises in Europe during 1931 and 1932 (*Table IX*).

Table IX.

FLYING MATERIAL USED BY THE COMPANIES.

| | | 1931 (31/XII) | 1932 (31/XII) |
|---|--|---------------|---------------|
| FLYING MATERIAL | Aeroplanes and hydroplanes in service | | |
| | 1931—Total 764, 635 in Europe | 635 | |
| | 1932—Total 754, 630 in Europe | | 630 |
| | Total paying load | | |
| | 1931—Total 620 tons, 525 in Europe | 525 t. | |
| | 1932—Total 610 tons, 508 in Europe | | 508 t. |
| Total engine power | | | |
| 1931—Total 473,000 HP; including about 400,000 in Europe | 400,000 HP | | |
| 1932—Total 490,000 HP; including about 415,000 in Europe | | 415,000 HP | |

The situation as regards material cannot have changed much in 1933, my last figures giving the number of machines in service on December 31st, 1932. However, since 1931, the figures have been too high, as spare machines (or machines awaiting a purchaser) whose annual service is insignificant continue to be included in the companies' parks. Account should be taken of this observation when the time comes to examine the rotation of material.

The flying personnel employed has been calculated as accurately as possible in Table X.

Table X.

FLYING PERSONNEL EMPLOYED BY THE COMPANIES.

| | 1931 (31/XII) | 1932 (31/XII) |
|--|---------------|---------------|
| <i>Pilots.</i> | | |
| In 1931, total 538, about 450 in Europe | 450 | |
| In 1932, total 535, about 450 in Europe | | 450 |
| <i>Flying personnel as a whole</i> (pilots, mechanics, wireless operators). | | |
| In 1931, total 1,150, about 980 in Europe | 980 | |
| In 1932, total 1,091, about 940 in Europe | | 940 |

It would be interesting to add to these figures the personnel charged with the duties of management and administration at the headquarters, centres of management and branches, and the ground staff and workmen employed at the airports, workshops, landing-grounds and agencies. Unfortunately, this information is available for a very

small number of countries or enterprises. However, these figures are given below for purposes of information and are compared with the annual kilometric traffic. (See *Table XI.*)

Table XI.

MAXIMUM TOTAL PERSONNEL.

| | |
|--|--|
| <i>Germany</i> (without "Deruluft") | 1930 : 1,865 persons for 9,062,672 km., <i>i.e.</i> 1 for 4,860 km. flown. 1931 : 1,815 persons for 8,677,721 km., <i>i.e.</i> 1 for 4,780 km. flown. 1932 : 1,545 persons for 7,728,000 km., <i>i.e.</i> 1 for 5,000 km. flown. In 1932, the flying personnel represented 14% of the total number. |
| "Deruluft" | 1930 : 144 persons for 928,000 km., <i>i.e.</i> 1 for 6,440 km. flown. 1931 : 168 persons for 903,000 km., <i>i.e.</i> 1 for 5,300 km. flown. 1932 : 200 persons for 981,000 km., <i>i.e.</i> 1 for 4,950 km. flown. In 1932, the flying personnel represented 10.5% of the total number. |
| <i>France</i> | 1929 : 2,905 persons for 9,435,434 km., <i>i.e.</i> 1 for 3,240 km. flown. 1932 : 2,500 persons for 9,155,867 km., <i>i.e.</i> 1 for 3,660 km. flown. In 1932, the flying personnel represented 7.5% of the total number. |

This table calls for various observations. The figure : 1 person employed per 4,500 km. flown per annum appears to represent the European average. I understand that the personnel employed by certain enterprises, such as *Imperial Airways* and the *K.L.M.*, whose technical organisation is efficiently centralised, is proportionately much smaller. On the other hand, the rate given for France appears to be unfavourable, unless account is taken of the fact that it is affected by long-distance services which are necessarily autonomous, such as the South American lines.

I do not think that the figures given for *Lufthansa* and *Deruluft* correspond to the European average, which is adversely affected by the multiplicity and seasonal nature of the services. I am prepared to accept a ratio of 8 per cent between the flying personnel and the maximum total personnel for the European system as a whole, and the total personnel employed on the system during the summer services can thus be estimated at 12,000.

A significant comparison can be made between this figure, however uncertain it may be, and that of the personnel employed in the United States of America by the regular air transport enterprises : approximately 6,300 persons in 1932 (5,997 on July 1st, 1933) for an annual distance flown of 81,000,000 kilometres in the case of the contractual services alone. This makes one person per 13,500 kilometres—*i.e.*, much less than in Europe for a given annual distance flown.

I considered it of interest also to establish, both for personnel and for material, the conditions of utilisation on the European system. These data are summarised in *Tables XII and XIII.*

Apart from the Roumanian enterprise (which has recently been established and is not yet very active), I find that the extreme figures are 24,180 kilometres (or 151 hours at 160 kmh.) for Hungary and 98,100 kilometres (or 613 hours at 160 kmh.) for the *Deruluft*. The average rate (64,400 kilometres in 402 hours) is low, especially if it is

Table XII.

UTILISATION OF PERSONNEL ON THE EUROPEAN NETWORK (1932).

| Pays dont relèvent les compagnies | Kilométrage annuel Annual distance flown (in km.) | Personnel navigant (pilotes compris) Flying personnel (including pilots) | Nombre de pilotes Number of pilots | Nombre annuel de km. par pilote Annual number of km. per pilot | Nombre annuel d'heures de vol par pilote (à 160 kmh.) Annual number of hours flown per pilot (at 160 kmh.) | Country to which the companies belong |
|--|--|---|--|---|---|---------------------------------------|
| ALLEMAGNE. . . | 7.003.718 | 217 | 103 | 68.000 | 425 | GERMANY. |
| AUTRICHE. . . . | 490.984 | 18 | 10 | 49.098 | 307 | AUSTRIA. |
| BELGIQUE. . . . | 1.140.380 | 27 | 14 | 81.500 | 510 | BELGIUM. |
| ROYAUME-UNI. . | 1.558.480 | 35 | 18 | 86.500 | 540 | UNITED KINGDOM. |
| DANEMARK. . . . | 244.470 | 7 | 3 | 81.500 | 509 | DENMARK. |
| ESPAGNE. . . . | 609.800 | 22 | 9 | 67.700 | 476 | SPAIN. |
| FINLANDE. . . . | 257.440 | 11 | 4 | 64.200 | 401 | FINLAND. |
| FRANCE. | 6.793.423 | 188 | 96 | 70.700 | 442 | FRANCE. |
| GRÈCE. | 389.525 | 16 | 8 | 48.700 | 304 | GREECE. |
| HONGRIE. . . . | 121.000 | 30 | 5 ¹ | 24.180 | 150 | HUNGARY. |
| ITALIE. | 4.560.118 | 188 | 95 | 48.948 | 306 | ITALY. |
| PAYS-BAS. . . . | 1.271.623 | 34 | 15 | 84.800 | 530 | NETHERLANDS. |
| POLOGNE. . . . | 1.187.684 | 29 | 20 | 59.300 | 370 | POLAND. |
| ROUMANIE. . . . | 198.360 | 16 | 7 | 28.400 | 177 | ROUMANIA. |
| SUÈDE. | 310.661 | 22 | 8 | 38.800 | 242 | SWEDEN. |
| SUISSE. | 670.436 | 23 | 8 | 83.700 | 523 | SWITZERLAND. |
| TCHÉCOSLOVAQUIE | 940.451 | 24 | 14 | 67.100 | 419 | CZECHOSLOVAKIA. |
| U. R. S. S. et ALLEMAGNE (« Deruluft »). | 981.000 | 21 | 10 | 98.100 | 613 | U.S.S.R. and GERMANY (" Derulft "). |
| YOUgosLAVIE. . . | 241.425 | 12 | 4 | 63.500 | 396 | YUGOSLAVIA. |
| Ensemble européen. . . | 29.071.978 | 940 | 451 | 64.400 | 402 | Total for Europe. |
| Etats-Unis d'Amérique. . | 81.000.000 | | 530 (environ) (approximately) | 153.000 | 850 (environ) (approximately) | United States of America. |

compared with the 153,000 kilometres and 850 hours (at 180 kmh.) flown by each pilot on the United States system. In several cases, the number of hours flown in Europe

¹ The Hungarian Government states that the figure 15 entered here, in place of 5, in the provisional edition includes assistant pilots and wireless operators holding a pilot's certificate; the official number of "first-class pilots" is 5.

would be slightly increased if it were possible to take account of the *true average speed* of the machines : 160 kmh. is certainly too high a speed for seven or eight national enterprises, and the time spent in the air each year by the pilots would thus be increased.

Naturally, in determining the American rate, no account was taken of the co-pilots, who are nearly always on board ; as a matter of fact, in the case of the regular traffic, the first pilot is always present and the co-pilots correspond to the " navigators " (who are often pilots or accustomed to piloting), who are included in the crew of the European aeroplane.

The conditions under which the material is used are shown in *Table XIII*.

Table XIII.

UTILISATION OF MATERIAL ON THE EUROPEAN NETWORK (1932).

| Pays dont relèvent les compagnies | Kilométrage annuel Annual distance flown (in km.) | Nombre d'avions Number of machines | Nombre annuel de km. par avion Annual number of km. per machine | Nombre annuel d'heures de service par avion (à 160 kmh.) Annual number of hours' service per machine (at 160 kmh.) | Country to which the companies belong |
|---|--|--|--|---|---------------------------------------|
| ALLEMAGNE | 7.003.718 | 154 | 45.500 | 285 | GERMANY. |
| AUTRICHE | 490.984 | 10 | 49.100 | 306 | AUSTRIA. |
| BELGIQUE | 1.140.380 | 19 | 60.000 | 375 | BELGIUM. |
| ROYAUME-UNI | 1.558.480 | 18 | 86.500 | 540 | UNITED KINGDOM. |
| DANEMARK | 244.470 | 5 | 48.800 | 305 | DENMARK. |
| ESPAGNE | 609.800 | 9 | 67.700 | 423 | SPAIN. |
| FINLANDE | 257.440 | 4 | 64.200 | 401 | FINLAND. |
| FRANCE | 6.793.423 | 181 | 37.500 | 234 | FRANCE. |
| GRÈCE | 389.525 | 4 | 97.500 | 609 | GREECE. |
| HONGRIE | 121.000 | 6 | 20.200 | 126 | HUNGARY. |
| ITALIE | 4.560.118 | 82 | 56.700 | 354 | ITALY. |
| PAYS-BAS | 1.271.623 | 28 | 45.400 | 283 | NETHERLANDS. |
| POLOGNE | 1.187.684 | 28 | 42.400 | 265 | POLAND. |
| ROUMANIE | 198.360 | 8 | 24.700 | 154 | ROUMANIA. |
| SUÈDE | 310.661 | 7 | 44.400 | 277 | SWEDEN. |
| SUISSE | 670.436 | 12 | 55.800 | 348 | SWITZERLAND. |
| TCHÉCOSLOVAQUIE | 940.451 | 27 | 34.800 | 217 | CZECHOSLOVAKIA. |
| U. R. S. S. et ALLEMAGNE (« Deruluft ») | 981.000 | 12 | 81.700 | 510 | U.S.S.R. and GERMANY ("Derulft"). |
| YUGOSLAVIE | 241.425 | 9 | 26.800 | 167 | YUGOSLAVIA. |
| Ensemble européen | 29.071.978 | 623 | 46.600 | 291 | Total for Europe. |
| Etats-Unis d'Amérique | 81.000.000 | 580 (environ approximately) | 140.000 | 780 h. à 180 kmh. at (ou 875 h. à 160 kmh.) (or 875 h. at 160 kmh.) | United States of America. |

This table is less satisfactory than the previous one, as will be realised when it is seen that the rates of utilisation (again excluding Roumania) vary from 20,200 kilometres and 126 hours (Hungary) to 97,500 kilometres and 609 hours (Greece). These discrepancies may be due to the overcrowding of a park or—on the contrary—to the restriction of the number of machines to a minimum. However, rates such as that for the Netherlands (45,400 kilometres and 283 hours) conflict with other very reliable information. The number of machines *actually* employed by the Netherlands *K.L.M.* on European lines is much smaller than appears from the table ; since seven machines are sufficient for the Indies service, it may be assumed that some twelve machines will suffice for the European traffic ; the average is therefore in the neighbourhood of 610 hours and 100,000 kilometres—figures which tally more closely with the rates of utilisation of *Fokker* aeroplanes (which I shall have occasion to mention, with certain others, in Chapter III) and also with the methods of administration of the enterprise.

Similarly the pilots of the *K.L.M.* from their second year of service onwards are known to exceed 800 hours of flying per annum. This figure should be compared with the American rate mentioned above.

As regards material, the American rate of utilisation is also very much higher. With 580 aeroplanes and seaplanes, the regular services produced in 1932 81,000,000 kilometres, corresponding to 140,000 kilometres and 875 hours per machine per annum, taking 160 kmh. as the average speed. As a matter of fact, 180 kmh. should be reckoned for 1932, thus reducing the annual average number of hours flown per machine to 780. This figure should be compared with the corresponding European rate : 291 hours, as given in *Table XIII*, and possibly 330 hours if account is taken of the *statistical* overcrowding of parks by machines withdrawn from the normal service.

* * *

In short, the material used and the results obtained can be approximately summarised in the following table (*Table XIV*).

Table XIV.

SUMMARY OF THE STATISTICAL RESULTS OF CONTRACTUAL AIR TRANSPORT
IN EUROPE AND ITS PROGRESS FROM 1930 TO 1932.

| | 1930 | 1931 | 1932 |
|---|------|------------|------------|
| A. — <i>Resources employed :</i> | | | |
| Flying personnel | | 980 | 940 |
| Pilots | | 450 | 450 |
| Number of aeroplanes and seaplanes | | 635 | 630 |
| Total horse-power | | 400,000 HP | 415,000 HP |
| Total paying load | | 525 tons | 508 tons |

Table XIV (continued).

| | 1930 | 1931 | 1932 |
|--|---------------------|----------------------|----------------------|
| B. — Quantities of traffic : | | | |
| Annual distance flown (in km.) | 32,000,000 km. | 31,000,000 km. appr. | 29,071,978 km. |
| Ton-kilometres produced | 24,600,000 t.-km. | 24,800,000 t.-km. | 27,000,000 t.-km. |
| Ton-kilometres utilised .. | 9,189,000 t.-km. | 10,312,000 t.-km. | 12,400,000 t.-km. |
| Coefficient of utilisation | 37.3% | 41.7% | 46% |
| Average freight per machine | 287 kg. | 333 kg. | 432 kg. |
| C. — Utilisation of resources : | | | |
| Distance flown per machine (in km.) .. | | 48,800 km. | 46,600 km. |
| Number of hours per machine | | 325 h. (at 150 kmh.) | 291 h. (at 160 kmh.) |
| Number of hours per day per machine | | 0.89 (54 minutes) | 0.80 (48 minutes) |
| Number of hours flown per pilot | | 460 h. (at 150 kmh.) | 402 h. (at 160 kmh.) |
| Number of hours per day flown per pilot | | 1.26 (87 minutes) | 1.09 (66 minutes) |
| D. — Revenue of enterprises : | | | |
| Receipts from custo- mers (A) | 131,000,000 fr. | 128,000,000 fr. | 135,000,000 fr. |
| Receipts from subsidies (or lump sums) | 432,000,000 fr. | 442,000,000 fr. | 420,000,000 fr. |
| Total revenue (B) | 563,000,000 fr. | 570,000,000 fr. | 555,000,000 fr. |
| Ratio $P_2 = \frac{A}{B}$ (percen- tage of financial auto- nomy) | 23.3% | 22.4% | 24.6% |
| E. — Origin (approximate) of receipt from customers : | | | |
| Receipts from passengers (millions of francs) .. | 71.5 = 55% | 67.5 = 52.7% | 81 = 59% |
| Receipts from goods (millions of francs) .. | 33.5 = 25.7% | 30.5 = 23.8% | 26 = 19% |
| Receipts from mails (millions of francs) .. | 25.5 = 19.3% | 30 = 23.5% | 30 = 22% |
| Total receipts from Customers | <u>130.5 = 100%</u> | <u>128 = 100%</u> | <u>137 = 100%</u> |

Hence these enterprises, with an aggregate capital of approximately 545 million francs, of which nearly one-fifth (107 millions) was paid by Governments, received direct annual subsidies of 500 million francs. The European States also include in their budgets, for the direct or indirect benefit of European public air transport enterprises, annual credits equivalent to at least 150 million francs. In these circumstances, it is not too much to say that contractual air transport has cost European taxpayers, in the territorial area under consideration alone, *2 thousand million French francs for the three years 1930, 1931 and 1932.*

If I were bold enough to estimate the expenditure incurred for the same purposes since 1919, this could hardly be put at less than 6 thousand million francs, especially if the heavy outlay on ground organisation, in which respect Germany has been particularly lavish, is taken into account. Professor PIRATH published the figure of 134 million RM. (approximately 820 million French francs) as representing Germany's expenditure since 1929 on the ground organisation of her system (air ports, communications, air beacons) alone.

No doubt these enormous sums will appear quite small if they are compared with the amount of capital invested in the railways or inland navigation, but attention must be paid to speed and the quantities of traffic produced. In this connection, it should be pointed out that the 12,400,000 ton-kilometres actually carried in 1932 by European contractual air transport enterprises, however impressive this figure may be, is equivalent to the load carried—each day of the year—by three or four ten-ton trucks for 1,000 kilometres—*i.e.*, from the north to the south of France or from London to Berlin. This small daily load represents a charge on the European budgets of nearly 2 million francs per day.

After fifteen years of efforts, organisation and technical progress, air transport in Europe still required in 1932 a subsidy of 14.50 francs per kilometre, while the receipts from customers per kilometre were 4.75 francs.

If subsidies are compared with ton-kilometres, the enterprises received, in 1932, 20.50 francs per ton-kilometre offered and 44.70 francs per ton-kilometre utilised.

I am aware that speed, which is sometimes important, is costly, but I consider that, with such resources, greater results might be aimed at, or that, if the companies are to be content with these small results, the cost could be very much less.

CHAPTER III.

ATTEMPT TO EXPLAIN THE RESULTS.

The general results obtained by the contractual air services in the territorial area under consideration therefore appear to be mediocre, whether from an absolute standpoint or in comparison with the results already obtained by American air transport undertakings across United States territory.

However, this low average must not cause me to lose sight of the remarkable results obtained in Europe by certain undertakings. On the contrary, the real problem is to find out *why it has not been possible for European undertakings in general to reach this high standard.*

I. PERSONNEL.

The value of the personnel, both administrative and executive, is undisputed. They are selected from a large number of suitable candidates, who have served in the war or in existing air forces, and all are very keen on their work. The most that can be said is that their experience is very unequal, depending as it does on the nature, importance and geographical situation of the routes served. But that is not enough to explain the differences in results, which vary from 8 to 1.

2. MATERIAL.

It is obviously the material which is at fault, although—for several reasons—to a much smaller extent than would appear at first sight. To begin with, the technical methods of various countries, however different, may often be of the *same value* in spite of external differences; moreover, they are tending to become standardised, because undertakings copy each other by acquiring and exchanging patents and licences. Lastly, national undertakings, even when they are supplied by an important national industry, cannot all dispense with the products of foreign industries—for instance, in Italy, 57 per cent of the stock of machines at the beginning of 1933 still consisted of *Dornier*, *Junkers* and *Fokker* aeroplanes, the country having hitherto concentrated its efforts on the production of military material.

It is all the more natural that countries without an aeronautical industry have freely selected the most suitable material in the market. Certain comparatively small undertakings have thus done much to stimulate air transport by procuring in the United States the material which the European industry had as yet been unable or unwilling to produce. For instance, the "Swissair" were the first to import *Lockheed* "Orion" machines and the *Clark* "G.A. 43" machine, and the enterprising Swedish firm "A.B.A.", part of whose stock for 1934, as stated in 1933, consisted of the very fast single engine *Northrop* "Delta" aeroplanes.

In view of this comparative freedom in the choice of materials, it is interesting to see how the contractual air transport fleet in Europe was distributed on January 1st, 1933, as regards industries and technique employed :

(a) *Proportion obtained from Industries of Various Countries (Direct Supply or Transfer of Licence).*

| | | Per cent |
|--|---|----------|
| Obtained from German manufacturers | 238 machines ¹ — <i>i.e.</i> , | 37.7 |
| " " French | 168 | 26.6 |
| " " Netherlands | 142 ² | 22.5 |
| " " Italian | 37 | 5.8 |
| " " British | 24 | 3.8 |
| " " Czechoslovak | 13 | 2.0 |
| " " American | 3 | 1.5 |
| " " Swiss | 3 | 1.5 |
| " " Russian | 2 | 1.5 |
| " " Polish | 1 | 1.5 |
| | 630 | 100 |

(b) *Exporting Capacity of the National Industries.*

Out of 142 Netherlands machines, 27 are used by the Netherlands K.L.M. and 115 (*i.e.*, 82.5 per cent) by companies of other nationalities.

Out of 238 German machines, 176 are used by German companies and 62 (*i.e.*, 26 per cent) by other companies.

Out of 168 French machines, 159 are used by French companies and 9 (*i.e.*, 5 per cent) by other companies.

Out of 24 British machines, 18 are used by British companies and 6 (*i.e.*, 25 per cent) by other companies.

Out of 37 Italian machines, 35 are used by Italian companies and 2 (*i.e.*, approximately 5 per cent) by other companies.

(c) *Diversity of Origin and Type.*

The 630 machines were supplied by 35 constructors; aeroplanes by 30 and seaplanes by 9.

The 168 French machines were obtained from 11 firms and are of 24 different types.

The 238 German machines from 6 firms—19 types.

The 142 Netherlands machines from 3 firms—13 types.

The 24 British machines from 5 firms—9 types.

The 37 Italian machines from 3 firms—6 types.

Altogether, irrespective of the different types of engines (which, however, lead to complications in the matter of supplies, replacement and upkeep), European air transport enterprises employ for the services under consideration 65 types of aeroplanes and 14 types of seaplanes. The engines are of 53 different types.

This variety makes the predominance of certain types all the more significant; thus, of the 162 *three-engine* and *four-engine* machines in service, there are 79 *Fokker*, of which 72 are of the *F.VII b 3M* type, 31 *Junkers* of the 20 "*G.24*" type, 15 *Farman* of the *F.301* and similar types, and 14 *Rohrbach* "*Roland*"; the 23 other *three-engine* machines are divided among 9 different marks.

This analysis of the material in service shows that, in countries where no impediments exist in the form of subsidies or industrial protection, the actual use of

¹ Including 127 *Junkers* machines.

² Including 139 *Fokker* machines.

material indicates a sort of consensus of opinion in favour of certain technical equipment which it would be interesting to analyse; but such a task is outside the scope of this report.

On the other hand, it is specially noteworthy that the enterprises with the highest return—the British, Netherlands and Finnish—depend to a very varying extent on their national industries.

Imperial Airways use British machines of a very high standard, but the industry has *as yet* no exporting capacity; the British company has chiefly encouraged the production of large machines excellently adapted to the traffic conditions on its lines.

The K.L.M. uses *Fokker* machines, although I understand that this constructor has no share in the capital of the contractual enterprise. Naturally, the fact that these machines are home-produced enables the Netherlands K.L.M. to obtain privileged treatment, since the constructor benefits by the experience gained in the operation of its lines, while the K.L.M. helps to determine the new types, and is also the first to employ them. It has thus been able on more than one occasion to resell under very favourable conditions material which is still capable of long service on less difficult lines or lines which are less exposed to competition than its own. These sales have a two-fold effect—which is very considerable—on the operation of the lines and on the financial administration of the company.

As there is no national industry in Finland, the Finnish enterprise “Aero O.Y.” goes to the firm which supplies the most suitable material for the lines it operates. Many other undertakings are in the same position; far from attaining the 61.4 per cent of “economic independence” (P_2 Index, see Chapter I) they reached (for instance, in 1932) 31.6 per cent (Swedish “A.B.A.”), 30 per cent (Danish “D.D.L.”), 26 per cent (Greek “E.E.E.S.”), 14.8 per cent (Spanish “L.A.P.E.”), or only 7.3 per cent (Polish “P.L.L.”).

3. THE EFFECT OF THE METHOD OF SUBSIDIES.

I now have to examine the chief determining factors, one of which is without a doubt the method of assigning subsidies. It would, however, in my opinion, be going too far to place this first. I will give an imaginary example to support my view.

If Denmark decided to-morrow to establish and operate by herself a commercial air transport line between Copenhagen, Iceland and Greenland on grounds of affinity and long-standing colonial ties, the line would probably have a very low economic return at first. It would, in any case, fall very far short of the 30 per cent which the “D.D.L.” is at present able to obtain on a small system by means of a seasonal service operated jointly with Germany over a rich area well provided with free ground organisation.

Let us assume, however, that the Denmark-Greenland line is completed. The rates and subsidy system hitherto applied would then be of small account. The only problem would be how to operate a line which was less remunerative than the others; the State would still be called upon to “make up the difference”, and subsidies, whether granted in a lump sum or to each line, would have to be adapted to the economic return, which is the only thing that matters.

It is quite true that certain subsidy systems amount to a premium on technical slackness, while others may, on the contrary, afford a stimulus. It is important that the best system should be maintained, if it has to compete with the worst system. It is an economic axiom that “bad money drives out good”; this also applies to subsidy systems.

4. PROGRAMME AND VALUE OF LINES.

It seems to me, however, that the system of assistance adopted by any particular State, and which in the end amounts to a higher or lower rate of subsidy, *is an effect rather than a cause*. The enormous differences in the economic return which I have mentioned are due—primarily and above all—to the more or less ambitious nature of the programmes, the choice of lines, with their greater or lesser utility—in short, to the nature of the services, more or less genuine (or regarded by the public as such), which a commercial air transport enterprise claims to render on any particular route.

This conclusion tempts one to compare the various lines, to classify them according to their remunerativeness, and then to propose that some should be retained and others abolished. However, such an attempt is hopeless, first because the *present* value of the lines is very often due to the conditions of operation, both technical and political; the analysis of each particular case—if the data were available—would therefore lead me too far. I would merely point out, in order to show the complexity of the problem, that the actual value of a line at a given moment depends in particular on:

(a) The aeronautical possibilities of the route (climate, meteorology, facilities for landing grounds, suitability of the ground flown over for forced landings, etc.);

(b) The economic value of the communications ensured (centres linked up, importance of trade, etc.);

(c) The definite advantages procured (elimination of transshipment or multiple Customs formalities, duration of the through air journey—whether too tiring for passengers—saving of time, etc.).

In their turn, the conditions of operation (material employed, frequency and permanence of services, adjustment of time-tables to fit in with other means of transport, tariffs, insurance conditions, etc.) depend to a greater or less extent on the actual value of the line.

Lastly, competition may be all the keener the greater the subsidy and especially as it is more subject to unforeseen variations.

There can thus be no question, within the scope of this report, of strict *comparisons*. I have, however, considered it expedient to place certain *results side by side* and to comment on them in an impartial spirit.

Even in order to achieve this limited aim, a common measure was necessary. I first selected a measure which, if not the best, is at any rate the most obvious—namely, the *index of utilisation of the line*. This index is, of course, obtained by dividing by the length of a line in kilometres the quantity of ton-kilometres actually carried on that line in the course of a year; it is therefore rather in the nature of an index of *activity* or of *traffic produced*.

5. ACTIVITY OF VARIOUS LINES.

I have not attempted to classify the services enumerated below. It was not possible to examine all the lines, first because the traffic results *per line* have not been communicated and, secondly, because it is often impossible to form a correct estimate owing to the fact that several national services cover the same route, starting at different points. I have merely given a few examples arranged in diminishing order of their activity; however, Paris-London must be considered separately, as its supremacy is unquestioned, and it would certainly take first place, even in a systematic survey.

Annual Number of Ton-Kilometres transported per Kilometre of Line.

A. *North-West Europe.*

(a) *Paris-London* (375 km.) in 1932 (two British companies, one French company ; several daily services all the year round, Sundays included) : 5,274 t.-km. per km. of line.

(b) *Amsterdam-London* (426 km.) in 1932 (one Netherlands company ; daily service all the year round, operated jointly for four months with the *Deutsche Lufthansa* ; these results have not been combined here) : 744 t.-km. per km. of line.

(c) *Paris-Brussels-Amsterdam* (440 km.) in 1932 (operated jointly by one Netherlands company and one French company ; daily service) : 623 t.-km. per km. of line.

(d) *Amsterdam-Malmö* (700 km.) in 1932 (one Netherlands company, with a daily service from April 1st to September 30th ; one Swedish company, with a daily service from March 1st to December 31st) : 543 t.-km. per km. of line.

(e) *London-Brussels-Cologne-Dusseldorf* (570 km.) in 1932 (daily service operated by a Belgian company over the whole route ; daily service—tri-weekly in winter—operated by a British company between London-Brussels-Cologne ; German daily service Cologne-Dusseldorf) : 540 t.-km. per km. of line.

(f) *Berlin-Hanover-Amsterdam-London* (991 km.) in 1931 (daily service operated by a German company) : 460 t.-km. of line.

(g) *Paris-Cologne-Berlin* (908 km.) (daily service operated jointly by a German company—1931 results—and a French company—1932 results) : 335 t.-km. per km. of line.

(h) *Paris-Marseilles* (730 km.) in 1932 (daily service operated by a French company) : 334 t.-km. per km. of line.

(i) *Berlin-Halle/Leipzig-Nuremberg-Munich* (527 km.) in 1931 (daily service operated by a German company) : 300 t.-km. per km. of line.

B. *Central Europe.*

(a) *Basle-Zurich-Munich-Vienna* (690 km.) (daily service for six months operated by a Swiss company over the whole route, 79 t.-km. ; German-Austrian service between Zurich-Munich, 41 t.-km. ; Austrian service Munich-Vienna, result unknown) : In all, probably 160 t.-km. per km. of line.

(b) *Prague-Leipzig-Essen-Rotterdam-Amsterdam* (893 km.) in 1932 (daily service for six months, operated by a Czechoslovak company) : 75 t.-km. per km. of line.

C. *Northern Europe.*

Stockholm-Turku-Helsinki (452 km.) in 1932 (daily service operated by a Finnish company for eight months and a Swedish company for four months) : 267 t.-km. per km. of line.

D. *Eastern Europe.*

(a) *Prague-Brno-Bratislava-Kosice-Uzhorod* (718 km.) in 1932 (daily service operated by a Czechoslovak company for seven and a-half months over the whole line and for eleven months between Prague and Bratislava) : 162 t.-km. per km. of line.

(b) *Warsaw-Katowice-Brno-Vienna* (661 km.) in 1932 (daily seasonal service, Warsaw-Katowice; tri-weekly permanent service Katowice-Vienna; a Polish company: 146 t.-km. per km. of line.

(c) The *Warsaw-Lwow-Cernauti-Bucarest-Sofia-Salonika* and *Cernauti-Galatz-Bucarest* system (2,350 km.) in 1932 (a Polish company; decreasing in frequency and becoming more seasonal from Warsaw-Lwow southwards): 54 t.-km. per km. of line.

(d) *Belgrade-Skoplje-Salonika* (584 km.) in 1932 (a Yugoslav company; daily service for four and a-half months; operated jointly on some journeys with a French company): 26 t.-km. per km. of line.

(e) *Bratislava-Zagreb* (320 km.) in 1932 (a Czechoslovak company; daily service for four and a-half months): 11 t.-km. per km. of line.

E. *Southern Europe.*

(a) *Athens-Salonika* (370 km.) in 1932 (a Greek company; daily service all the year round): 471 t.-km. per km. of line.

(b) *Barcelona-Madrid-Seville* (920 km.) in 1932 (a Spanish company; daily service, Sundays included, all the year round): 292 t.-km. per km. of line.

(c) *Toulouse-Casablanca* (2,340 km.) in 1932 (a French company; daily service all the year round): 205 t.-km. per km. of line.

(d) *Munich-Milan-Rome* (980 km.) in 1932 (an Italian company; daily or tri-weekly service for eleven months between variable points, according to season): 163 t.-km. per km. of line.

(e) *Geneva-Marseilles* (310 km.) in 1931 (a German company): 90 t.-km. per km. of line.

(f) *Venice-Ancona-Brindisi* (775 km.) in 1932 (an Italian company; bi- or tri-weekly service all the year round): 21 t.-km. per km. of line.

F. *Mediterranean (seaplane lines).*

(a) *Marseilles-Tunis-Bône* (1,293 km.) in 1932 (a French company; daily service all the year round): 162 t.-km. per km. of line.

(b) *Rome-Genoa-Marseilles-Barcelona* (1,190 km.) in 1932 (an Italian company; bi- or tri-weekly service all the year round): 106 t.-km. per km. of line.

(c) *Rome-Syracuse-Malta-Tripoli* (1,225 km.) in 1932 (an Italian company; daily service for three months and tri-weekly the rest of the year): 94 t.-km. per km. of line.

(d) *Brindisi-Athens-Istanbul* (1,437 km.) in 1932 (an Italian company; weekly service for five months and bi-weekly for six months): 30 t.-km. per km. of line.

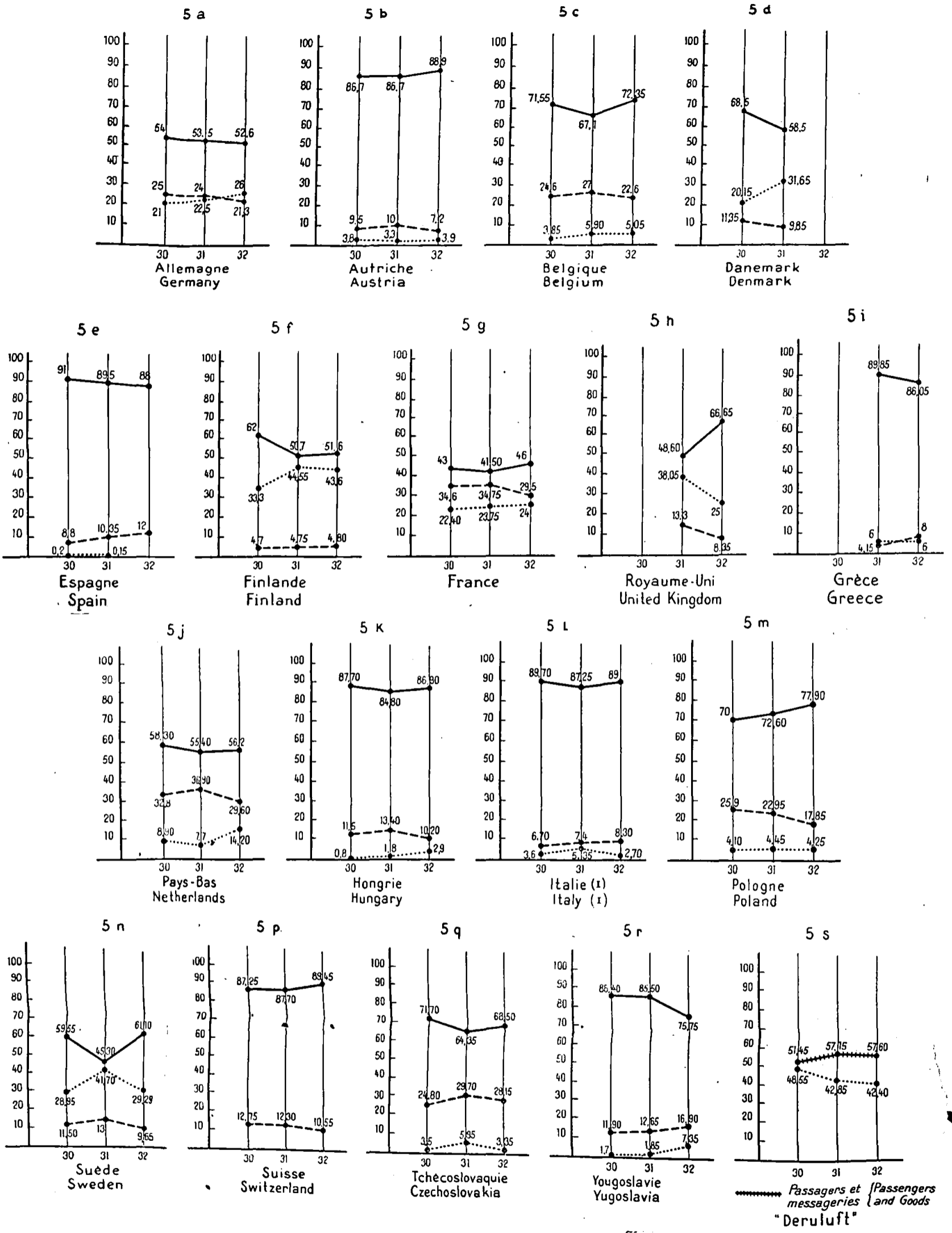
(e) *Marseilles-Algiers* (803 km.) in 1932 (a French company; daily service all the year round): 28 t.-km. per km. of line.

(f) The British bi-weekly service *London-Egypt* showed in 1932, over 3,600 km., a utilisation of 167 t.-km.; but, on the *Brindisi-Alexandria* portion of the route, the seaplane service must to-day be the most remunerative of the Mediterranean lines.

Thus, for the thirty lines examined, the activity in ton-kilometres per kilometre of line varies from 5,274 to 11. Even then I am not sure that I have mentioned the least active line.

Graph 5.

DIVISION OF RECEIPTS, IN PERCENTAGES, FOR THE DIFFERENT CATEGORIES OF FREIGHT, FOR EACH NATIONAL COMPANY, IN 1930, 1931 AND 1932.



| | Passengers | Goods ¹ | Mail |
|------|------------|--------------------|-------|
| 1930 | 81.24 | 4.65 | 14.11 |
| 1931 | 79.89 | 5.62 | 14.49 |
| 1932 | 79.95 | 9.01 | 11.04 |

In particular, the figures for “economic” activity—*i.e.*, showing the aggregate tonnage transported at various rates or even free of charge—reduced to represent a smaller number of ton-kilometres transported at the full rate, would be very much lower than those given above.¹

However, I would state once again that I do not claim to judge or classify lines by this over-simple criterion. It would in any case be necessary, if I wished to do so, to study the evolution of the traffic and receipts for each line for several consecutive years. I also have the impression, after making certain investigations, that—apart from three or four lines, including Paris-London—the variations are much smaller than might be expected or, above all, desired.

I am dealing—and I shall endeavour to give the reasons for this assertion—with a system which has no elasticity and very little vitality as a whole; the kilometric activity is in nearly every case merely the quotient of the subsidy divided by the kilometric deficit. If the subsidy is reduced, the distance in kilometres will be reduced.

Moreover, it is not a vast European system operated jointly. The pools are far less numerous than is usually thought; as a rule, national systems exist side by side and often overlap, but do not co-operate. A national enterprise in receipt of subsidies which—even in the case of pools—it shares with no one, soon acquires permanent characteristics. This was shown in *Chapter I*, in our *Graphs 1* and *2*.

This uniformity goes still further. It is shown even in the manner in which receipts from customers are distributed among the three categories of freight: passengers, goods, mail. This is indicated, for the three years 1930, 1931 and 1932, in *Table XV* and the eighteen *graphs* numbered 5-*a* to 5-*s*, which merely express percentages.

Graphs 5-a to 5-*s*, each of which relates to a national enterprise, should be examined together with *Graph 2*. An idea of the actual receipts to which the percentages apply will thus be obtained.

In examining these graphs, the following observations should be borne in mind:

In every case, except perhaps as regards the Germano-Russian enterprise “Deruluft”, receipts from passengers exceed other receipts. The highest percentages of passenger receipts accompanied by the lowest absolute receipts are to be found on air transport systems which do not link up the principal European markets (Austria, Greece, Hungary, Italy, Poland, Spain, Yugoslavia) or which are of a seasonal character.

The countries in which receipts are most evenly divided among the three categories of freight are Finland, France, Germany and the Netherlands.

The increase in goods receipts is particularly noticeable in France, Germany and the Netherlands.

Postal receipts are of great importance in the case of the Danish, Finnish and Swedish enterprises (influence of special services of night mail transport between Scandinavia and North-West Europe). The “Deruluft” has the advantage of a favourable postal contract.

6. FINANCIAL RETURN OF CERTAIN LINES.

In reality, a study of the financial return of each line is required; but I have not the data at my disposal for this task. I have merely collected a few extreme results in *Table XVI* and shall next attempt to examine more closely a line which is

¹ Although the figures for the *absolute utilisation* of the Italian official services are often very small, the figures for *economic utilisation* (free transport deducted) are also given for each line. The generalisation of this loyal practice is highly desirable, the notion of utilisation at full tariff being emphasised, as is done above.

Table XV.

RECEIPTS FROM EACH CLASS OF FREIGHT SHOWN AS A PERCENTAGE OF TOTAL RECEIPTS FROM CUSTOMERS.

| Pays exploitant Operating country | Année 1930 — Year 1930 | | | Année 1931 — Year 1931 | | | Année 1932 — Year 1932 | | |
|--|--|---|--|--|---|--|--|---|--|
| | Pour 100 francs de recette de clientèle, on trouve | | | Pour 100 francs de recette de clientèle, on trouve | | | Pour 100 francs de recette de clientèle, on trouve | | |
| | Per 100 francs of receipts from customers | | | Per 100 francs of receipts from customers | | | Per 100 francs of receipts from customers | | |
| | Passagers Passengers | Messageries et bagages Goods and baggage | Postes Mail | Passagers Passengers | Messageries et bagages Goods and baggage | Postes Mail | Passagers Passengers | Messageries et bagages Goods and baggage | Postes Mail |
| ALLEMAGNE — GERMANY | 54,— | 25,— | 21,— | 53,50 | 24,— | 22,50 | 52,60 | 21,35 | 26,05 |
| AUTRICHE — AUSTRIA . . | 86,70 | 9,50 | 3,80 | 86,70 | 10,— | 3,30 | 88,90 | 7,20 | 3,90 |
| BELGIQUE — BELGIUM . . | 71,55 | 24,60 | 3,85 | 67,10 | 27,— | 5,90 | 72,35 | 22,60 | 5,05 |
| ROYAUME - UNI — UNITED KINGDOM . . | Pas de renseignements No information | | | 48,60 | 13,35 | 38,05 | 66,65 | 8,35 | 25,— |
| DANEMARK — DENMARK | 68,50 | 11,35 | 20,15 | 58,50 | 9,85 | 31,65 | | | |
| ESPAGNE — SPAIN . . . | 91,— | 8,80 | 0,20 | 89,50 | 10,35 | 0,15 | 88,— | 12,— | |
| FINLANDE — FINLAND . . | 62,— | 4,70 | 33,30 | 50,70 | 4,75 | 44,55 | 51,60 | 4,80 | 43,60 |
| FRANCE | 43,— | 34,60 | 22,40 | 41,50 | 34,75 | 23,75 | 46,50 | 29,50 | 24,— |
| GRÈCE — GREECE . . . | Pas de trafic No traffic | | | 89,85 | 4,15 | 6,— | 86,— | 8,— | 62,— |
| HONGRIE — HUNGARY . . | 87,70 | 11,50 | 0,80 | 84,80 | 13,40 | 1,80 | 86,90 | 10,20 | 2,90 |
| ITALIE — ITALY | 89,70 | 6,70 | 3,60 | 87,25 | 7,40 | 5,35 | 89,— | 8,30 | 2,70 |
| PAYS-BAS — NETHER- LANDS | 58,30 | 32,80 | 8,90 | 55,40 | 36,90 | 7,70 | 56,20 | 29,60 | 14,20 |
| POLOGNE — POLAND . . . | 70,— | 25,90 | 4,10 | 72,60 | 22,95 | 4,45 | 77,90 | 17,85 | 4,25 |
| ROUMANIE — ROUMANIA | Pas de trafic No traffic | | | Pas de trafic No traffic | | | Pas de renseignements No information | | |
| SUÈDE — SWEDEN | 59,55 | 11,50 | 28,95 | 45,30 | 13,— | 41,70 | 61,10 | 9,65 | 29,25 |
| SUISSE — SWITZERLAND. | 87,25 | 12,75 | Paiement forfaitaire Lump sum payment | 87,70 | 12,30 | Paiement forfaitaire Lump sum payment | 89,45 | 10,55 | Paiement forfaitaire Lump sum payment |
| TCHÉCOSLOVAQUIE — CZECHOSLOVAKIA. . . . | 71,70 | 24,80 | 3,50 | 64,35 | 29,70 | 5,95 | 68,50 | 28,15 | 3,35 |
| YUGOSLAVIE — YUGO- SLAVIA | 86,40 | 11,90 | 1,70 | 85,50 | 12,65 | 1,85 | 75,75 | 16,90 | 7,35 |
| U. R. S. S. (et ALLE- MAGNE) (« Deruluft ») . | 51,45 | | 48,55 | 57,15 | | 42,85 | 57,60 | | 42,40 |
| U.S.S.R. (and GER- MANY) (« Deruluft ») . | | | | | | | | | |

N.B.—Italic figures are uncertain.

Table XVI.

FINANCIAL RESULTS OF THE TRAFFIC ON CERTAIN LINES FOR 1932.

| Ligne ou réseau Line or network | Coefficient d'utilisation effective Coefficient of actual utilisation | Coefficient d'utilisation économique Coefficient of economic utilisation | Recette de clientèle (A) (en francs) Receipts from customers (A) (in francs) | Subvention absorbée (en francs) Subsidy absorbed (in francs) | Encaissement total (B) (en francs) Aggregate revenue (B) (in francs) | Indice P_2 $\left(\frac{A}{B}\right)$ d'au- tonomie financière P_2 index $\left(\frac{A}{B}\right)$ of financial autonomy | Observations relatives à l'exploitation Observations as to working |
|--|--|---|---|---|---|--|---|
| Réseau européen (val. moyenne). European network (average value). | % 46 | % 35 env. app. | 37.000.000 | 417.000.000 | 554.000.000 | % 24,7 | |
| Brindisi-Athènes- Athens-Istanbul (1.437 km.) | 59,1 | 34,1 | 528.038 | 11.069.239 | 11.597.277 | 4,5 | 11 mois de service : hebdomadaire pendant 5 mois et bihebdomadaire pendant 6. 11 months' service : weekly for 5 months and bi-weekly for 6. |
| Rome-Syracuse- Malte-Malta-Tripoli (1.225 km.) | 63 | 54,1 | 718.900 | 9.353.500 | 10.072.400 | 7,1 | 12 mois de service : quotidien pendant 3 mois, et trihebdomadaire pendant 9. 12 months' service : daily for 3 months and tri-weekly for 9. |
| Rome — Gênes- Genoa — Marseille — Barcelone-Barcelona (1.190 km.) | 27,6 | 20 | 206.050 | 11.609.000 | 11.815.050 | 1,8 | Service bi- ou trihebdomadaire. Bi- or tri-weekly service. |
| Munich — Milan — Rome (980 km.) | 41,7 | 33,3 | 852.800 | 9.808.500 | 10.661.300 | 8 | Service quotidien ou trihebdomadaire pendant 11 mois, sur parcours saisonniers variables. Daily or tri-weekly service for 11 months, between places varying according to season. |
| Venise-Venice — Ancône-Ancona — Brindisi (775 km.) | 34,9 | 20 | 18.369 | 2.115.100 | 2.133.469 | 0,85 | Service bi- ou trihebdomadaire. Bi- or tri-weekly service. |
| Marseille-Tunis — Bône (1.293 km.) | 90 | ? | 2.318.932 | 17.666.924 | 19.985.856 | 11,5 | Service quotidien toute l'année (sauf dimanches). |
| Marseille — Alger- Algiers (803 km.) | 33 | ? | 908.432 | 15.861.500 | 16.769.932 | 6 | Daily service all the year round (Sundays excepted). |
| Paris — Londres- London (Air Union). | 76 | ? | 8.554.494 | 10.000.000 | 18.554.494 | 46,1 | Services pluriquotidiens, toute l'année, dimanches compris. |
| Londres-London — Paris (Imperial Airways). | 70 (?) | ? | 13.666.950 (?) | 4.250.000 (?) | 17.916.950 | 76,3 | Several services daily, all the year round, Sundays included. |

The *lira* is reckoned at 1 fr. 30.

unfortunately a unique one of its kind in Europe : Paris-London. I shall thus indicate the most striking variations from the average results included in *Table XIV (Chapter II)*.

I regret that these variations in an unfavourable sense nearly all relate to the Italian system. That is doubtless due to the nature of things ; but it is only brought out here on account of the accurate manner in which the Italian authorities have replied to the basic questionnaire.

Thus, for Italian lines in the Mediterranean, which have coefficients of actual utilisation varying from 27 to 59 per cent and coefficients of economic utilisation varying from 20 to 54 per cent, the economic independence indices are between less than 1 per cent and 7 per cent.¹ It must therefore be concluded that a large part of the traffic included under economic utilisation is still granted very reduced rates. Otherwise, I should have to assume that, for instance, an aeroplane *travelling with a full load* from Venice to Brindisi would obtain less than 5 per cent² of the total revenue which it procures for the company from receipts from customers.

* * *

Paris-London offers a striking contrast to these lines which, from an economic standpoint, are very unsatisfactory. I will, therefore, examine this line.

7. A SHORT LINE WITH A HIGH RETURN : PARIS-LONDON IN 1932.

As regards their European system, Imperial Airways do not publish statistics for each line separately. The following traffic results for 1932 have, however, been taken from an official document issued by the United Kingdom Air Ministry, comparing the results of the British and French undertakings since 1928, between London and Paris. Moreover, the Air Union results for 1932 conform strictly to the French official statistics.

For the two competing companies, the figures are as follows :

| | AIR UNION | IMPERIAL AIRWAYS |
|---|----------------|------------------|
| Kilometres flown | 960,397 | 729,121 |
| Number of passengers | 14,633 | 36,308 |
| Goods (in tons) | 582 | 384 |
| Mail (in tons) | 8.7 | 24.73 |
| Passenger-km. | 5,487,375 | 13,614,661 |
| Ton-km. { Passengers (1 passenger = 80 kg.) | 438,984 | 1,089,200 |
| { Goods | 218,165 | 143,978 |
| { Mail | 3,255 | 9,272 |
| Total | 660,404 t.-km. | 1,242,450 |
| Utilisation | 76% | ? % |

On the 375 km. of the Paris-London line, nearly 2 million t.-km. were thus *utilised* in 1932 (passengers, 1,528,000; goods, 362,000; mail, 12,500 t.-km.). This is equivalent to one-sixth of the total quantity utilised, for Europe as a whole, by the contractual services.

Taken by itself, the Paris-London line thus shows more *t.-km. utilised* than the whole of the systems operated by the Belgian, Swiss, Czechoslovak, Polish, Swedish,

¹ The 1933 results brought the maximum Italian rates for the three lines in question up to 2.4% and 15%.

² According to the 1933 results, this would have to read : " less than 10% ".

Danish, Finnish, Austrian, Hungarian, Yugoslav and Roumanian companies put together (1,902,854 t.-km., as compared with approximately 1,850,000).

In 1932, the Air Union, although it secured only about one-third of the Paris-London traffic (660,404 t.-km., as compared with 1,242,450 secured by the Imperial Airways), equalled *on a line 375 km. long* the quantities of freight (in t.-km. utilised) shown by the C.I.D.N.A. and Farman lines on 8,374 km. of lines. Similarly, the traffic receipts amounted to 8,554,494 francs for the Paris-London line (Air Union) and to 9,128,548 francs for the Farman-C.I.D.N.A. European lines as a whole.

Hence, the traffic produced, *per kilometre of line*, compares as follows :

| | Per kilometre of line. | |
|--|------------------------|-------------------------|
| | T.-km. utilised | Receipts from customers |
| Paris-London (Air Union) | 1,760 | Francs 22,810 |
| Farman and C.I.D.N.A. systems combined | 79 | 1,090 |

It is interesting to compare with these figures the State subsidies per kilometre flown :

Paris-London (Air Union) 1932, 10 million francs for 960,397 km.—*i.e.*, 10.40 francs per km.

Farman and C.I.D.N.A. systems (1932), 44,500,000 francs for 2,194,878 km.—*i.e.*, 20.25 francs per km.

Consequently, while the “ production ” per km. of line (both in t.-km. and in receipts from customers) is twenty-two times greater on the Paris-London line (French management) than on the continental system C.I.D.N.A.-Farman, the kilometric subsidies vary only in the proportion of from 1 to 2, and the receipts per t.-km. utilised (if not sold) amount to 12.90 francs on the Paris-London line and to 13.80 francs on the continental system under consideration.

The much more frequent utilisation and the very much greater production (which are, in fact, quite exceptional) of the Paris-London line have, therefore, had no effect on tariffs. Here we have a French line with a return of 76 per cent, whose activity is enormous as compared with that of the continental system, and which has nevertheless absorbed 10.40 francs subsidy per kilometre flown.

It would be very interesting to compare the financial situation of the Air Union Paris-London line with that of the Imperial Airways. Unfortunately, the British Government was not in a position to communicate to the League of Nations particulars of receipts from customers. We may, however, venture to give an approximate estimate based on the aggregate receipts officially communicated for the period April 1st, 1932, to January 31st, 1933—namely, £951,492, of which £458,000 represented subsidies. The receipts from customers would thus have amounted to £493,492, corresponding to an effective traffic of 1,860,317 ton-miles, the receipts in question amounting to roughly 12.60 francs per ton-kilometre—a figure which approximates very closely to the Air Union’s receipts from the Paris-London line—namely, 12.90 francs. However, in order to take into account the small proportion of the most remunerative freight—namely, mail—on the London-Paris line (although the Imperial Airways receive a very low fee for mail transport), I will assume that receipts from customers amount to 11 francs per ton-kilometre utilised—*i.e.*, 13,666,950 francs in 1932. These aggregate receipts represent a return from customers of 18.75 francs per

kilometre flown, which ought to cover the portion of the traffic costs corresponding to utilisation.

In other words, if a British aeroplane from Paris-London was loaded to 75 per cent of its capacity in 1932, 75 per cent of its expenses would be covered. If we assume an average utilisation of 70 per cent, which is slightly under that of the Air Union, whose machines are much smaller, the British service between London and Paris probably absorbed in 1932 a subsidy of from 5 to 6 francs per kilometre flown—*i.e.*, roughly 4,250,000 francs. For the European system as a whole (London-Egypt line excluded), on which Imperial Airways covered a distance of 1,057,200 kilometres, the Company received £110,000 in subsidies—*i.e.*, 9,350,000 francs. Each of the 280,000 kilometres flown elsewhere than on the Paris-London line would, therefore, have been able to absorb 18 francs subsidy per kilometre, a sum which was largely in excess of the requirements.

Consequently, thanks to the London-Paris line, Imperial Airways were able to earn money on their European system in 1932. Judging by the available data for 1933, this situation has improved still further. It should also be noted that the competition of an unsubsidised enterprise, the Hillman service, has increased the general total by a small percentage without doing any harm to either of the two contractual companies.

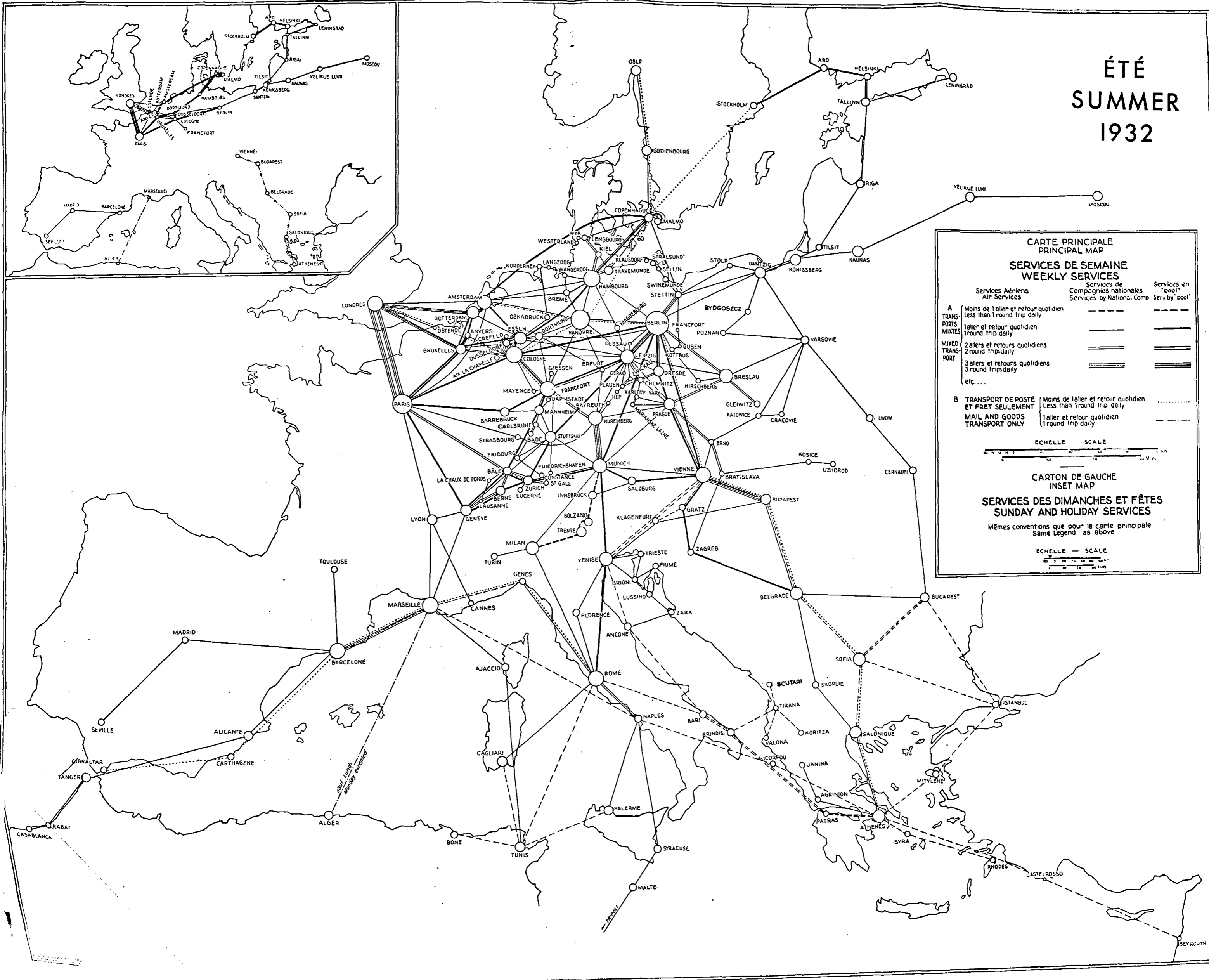
8. SEASONAL NATURE OF THE SERVICES.

The *observations* column of *Table XVI* is particularly interesting. It shows that the index of financial autonomy of the services, which depends on receipts alone, is obviously influenced by their regularity, frequency and seasonal or permanent nature. This fact would be brought out still more clearly if the *table* covered all the lines of the European system. In fact, these interruptions and irregularities in the services constitute the most marked characteristic of air transport enterprises in Europe, especially as compared with the permanent services in the United States. That is probably the main reason of their obvious inferiority.

I have, accordingly, prepared for 1932 four *maps*—*B, C, D* and *E*—showing the services provided under the so-called *spring, summer, autumn* and *winter* time-tables. These maps cannot claim to be absolutely accurate, as the time-tables throughout Europe are by no means changed simultaneously. They should be regarded as pictures, which are more striking and more complete than the maps usually published. Special attention should be paid to the diagram of *Sunday* services included in each map. One cannot help being struck by the fact that, in practice, air transport services run only on weekdays, in the seasons when they operate, as if the enterprises seized every opportunity, good or bad—and in this case they are all bad—to suspend services, which are evidently onerous, on Sundays and in many cases on holidays. Under these conditions, it is hard for the public to regard air transport as a normal means of public transport. It is still more difficult when the services are suspended for three, six or even nine months. After this lengthy interruption, the advertising efforts of the commercial services have to be begun again, as in the case of a new enterprise. Customers have had time to forget the services, even if they be of real value, which air transport claims to render.

This question is of great importance. I will therefore give a few examples to illustrate the seasonal and irregular character of contractual air transport in Europe.

ÉTÉ
SUMMER
1932



**CARTE PRINCIPALE
PRINCIPAL MAP**

**SERVICES DE SEMAINE
WEEKLY SERVICES**

| | Services Aériens Air Services | Services de Compagnies nationales Services by National Comp | Services en "pool" Serv. by "pool" |
|-------------------------------------|---|--|--|
| A | Moins de 1 aller et retour quotidien Less than 1 round trip daily | ----- | ----- |
| TRANS- SPORTS MIXTES | 1 aller et retour quotidien 1 round trip daily | ===== | ===== |
| MIXED TRANS- SPORT | 2 allers et retours quotidiens 2 round trips daily | ===== | ===== |
| | 3 allers et retours quotidiens 3 round trips daily | ===== | ===== |
| | etc. | | |
| B | TRANSPORT DE POSTE ET FRET SEULEMENT MAIL AND GOODS TRANSPORT ONLY | Moins de 1 aller et retour quotidien Less than 1 round trip daily | |
| | | 1 aller et retour quotidien 1 round trip daily | ----- |

ECHELLE — SCALE
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000

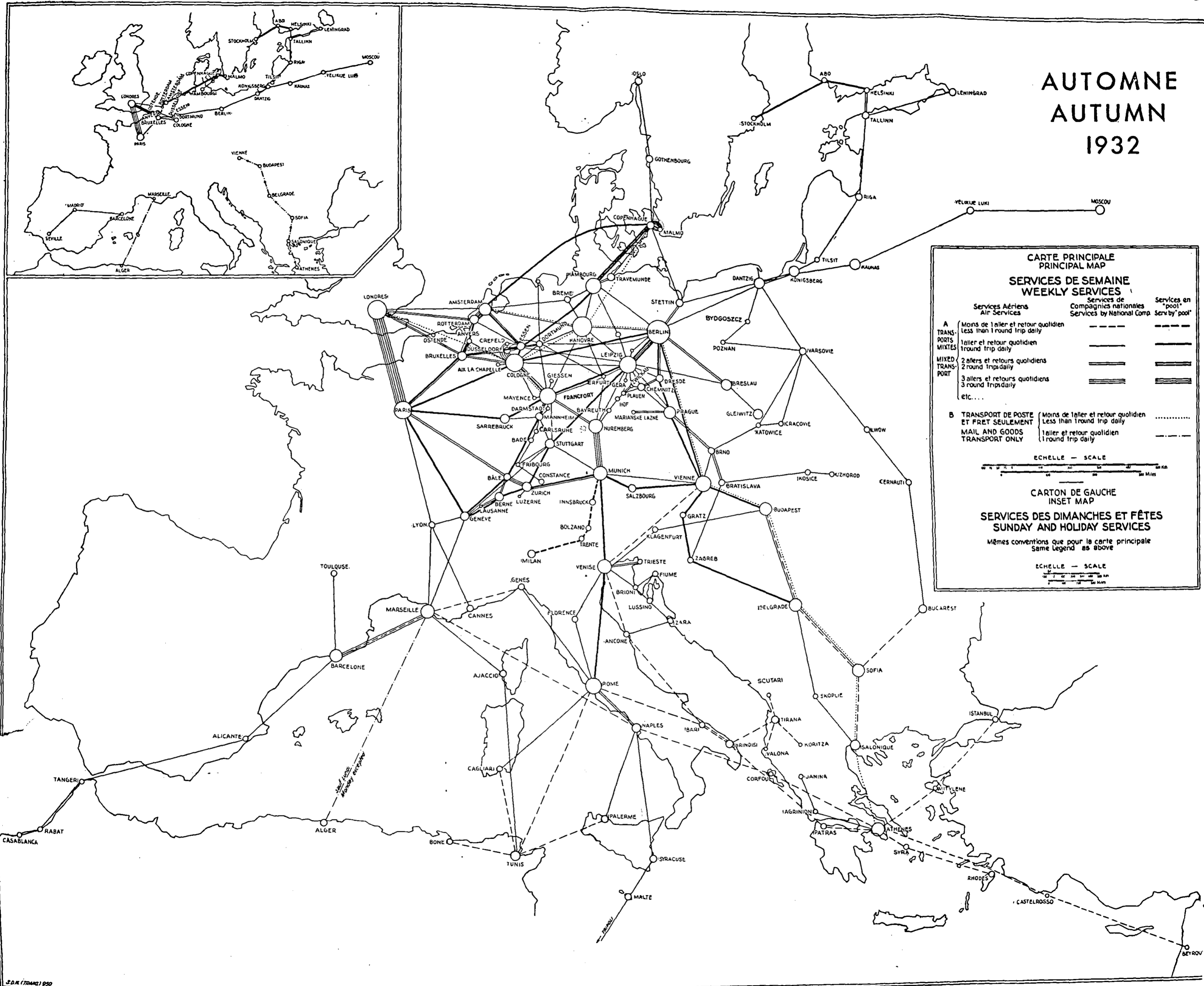
**CARTON DE GAUCHE
INSET MAP**

**SERVICES DES DIMANCHES ET FÊTES
SUNDAY AND HOLIDAY SERVICES**

Mêmes conventions que pour la carte principale
Same Legend as above

ECHELLE — SCALE
0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000

AUTOMNE AUTUMN 1932



**CARTE PRINCIPALE
PRINCIPAL MAP**

**SERVICES DE SEMAINE
WEEKLY SERVICES**

| | Services Aériens Air Services | Services de Compagnies nationales Services by National Comp. | Services en "pool" Serv by "pool" |
|---|--|--|---|
| A | | | |
| TRANS- SPORTS MIXTES | Moins de 1 aller et retour quotidien Less than 1 round trip daily | ----- | ----- |
| | 1 aller et retour quotidien 1 round trip daily | ----- | ----- |
| MIXED TRANS- SPORT | 2 allers et retours quotidiens 2 round trips daily | ===== | ===== |
| | 3 allers et retours quotidiens 3 round trips daily | ===== | ===== |
| | etc.... | | |
| B | | | |
| TRANSPORT DE POSTE ET FRET SEULEMENT MAIL AND GOODS TRANSPORT ONLY | Moins de 1 aller et retour quotidien Less than 1 round trip daily | | |
| | 1 aller et retour quotidien 1 round trip daily | ----- | ----- |

ECHELLE — SCALE
0 50 100 150 200 250 Miles

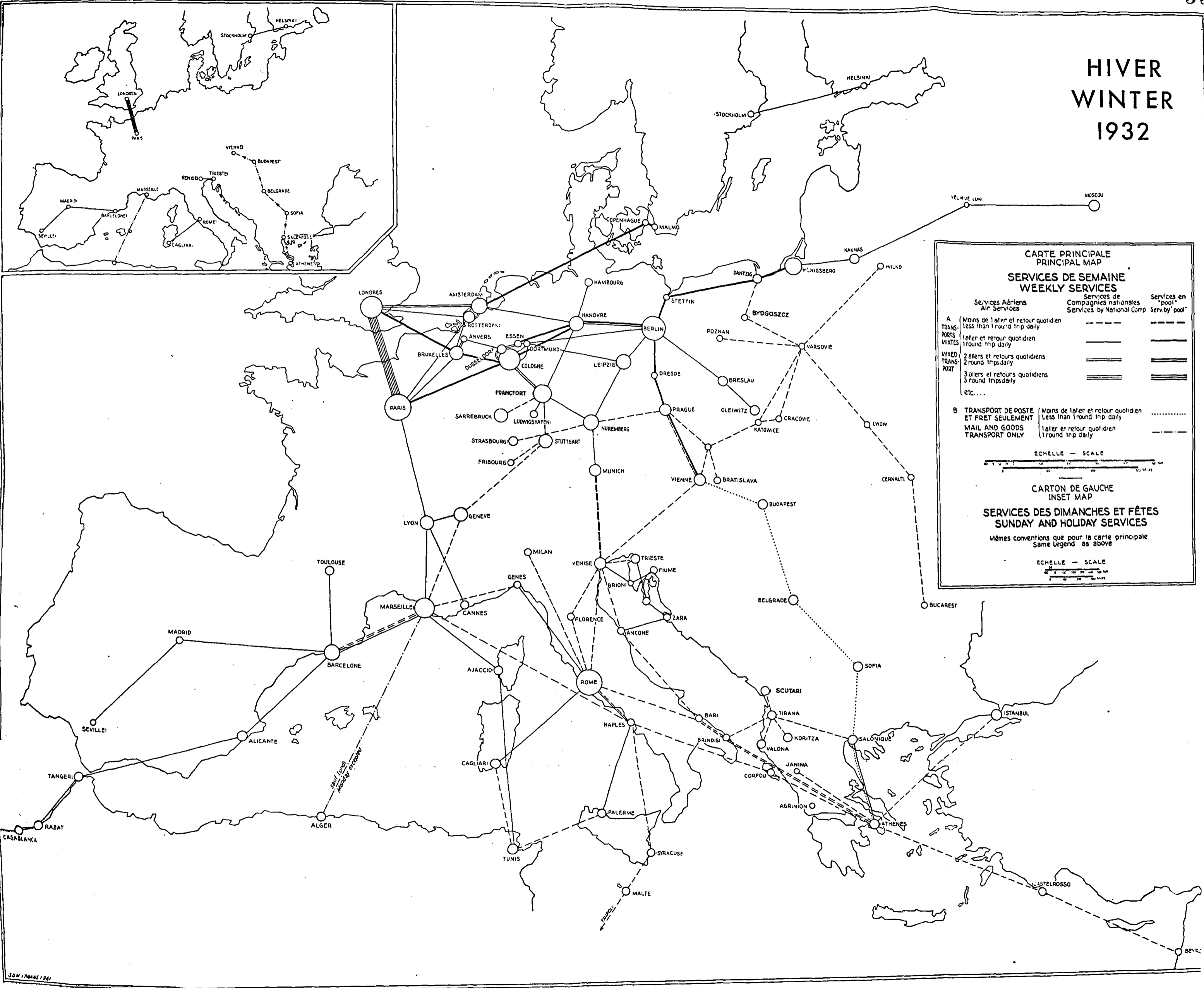
**CARTON DE GAUCHE
INSET MAP**

**SERVICES DES DIMANCHES ET FÊTES
SUNDAY AND HOLIDAY SERVICES**

Mêmes conventions que pour la carte principale
Same Legend as above

ECHELLE — SCALE
0 50 100 150 200 Miles

HIVER
WINTER
1932



**CARTE PRINCIPALE
PRINCIPAL MAP**

**SERVICES DE SEMAINE
WEEKLY SERVICES**

| | Services Aériens Air Services | Services de Compagnies nationales SERVICES by National Comp | Services en "pool" "serv. by pool" |
|---|--|---|--|
| A | | | |
| TRANS- PORTS | Moins de 1 aller et retour quotidien Less than 1 round trip daily | ----- | ----- |
| MIXTES | 1 aller et retour quotidien 1 round trip daily | ===== | ===== |
| MIXED TRANS- PORT | 2 aller et retours quotidiens 2 round trips daily | ===== | ===== |
| | 3 aller et retours quotidiens 3 round trips daily | ===== | ===== |
| | etc.... | | |
| B | | | |
| TRANSPORT DE POSTE ET FRET SEULEMENT | Moins de 1 aller et retour quotidien Less than 1 round trip daily | | |
| MAIL AND GOODS TRANSPORT ONLY | 1 aller et retour quotidien 1 round trip daily | ----- | ----- |

ECHELLE — SCALE
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

**CARTON DE GAUCHE
INSET MAP**

**SERVICES DES DIMANCHES ET FÊTES
SUNDAY AND HOLIDAY SERVICES**

Mêmes conventions que pour la carte principale
Same Legend as above

ECHELLE — SCALE
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200

In the first place, if a service on a given route is to be described as *regular*, one *journey* at least should be made *daily in each direction*. This appears to be necessary, at all events in the part of Europe situated west of a line Helsinki-Warsaw-Budapest-Trieste-Corfu.

The Belgian services, on a system of 2,900 kilometres—*i.e.*, 5,800 kilometres for the daily return journey—covered 722,000 kilometres in 1932; this distance is thus equivalent to 120 days of the so-called *minimum* service.

The corresponding figures are :

| | Days |
|---|------|
| For Italy, on a system of 19,564 kilometres | 120 |
| For Switzerland (and its associates), on a system of 3,400 kilometres | 153 |
| For Sweden, on a system of 2,000 kilometres | 103 |
| For Poland, on a system of 1,096 kilometres | 106 |
| For Denmark, on a system of 1,945 kilometres | 63 |
| For Hungary, on a system of 1,230 kilometres | 48 |

On the other hand, Spain actually provided 331 days' minimum service on a system of 920 kilometres; Greece, 263 days on 740 kilometres. It will be realised that the return of these two undertakings in countries whose economic activity is limited is very praiseworthy; these good results are no doubt largely due to the permanent nature of the services.

* * *

It is interesting to compare *Graphs* 6 and 7 relating to the Spanish and German undertakings.

The former shows that in Spain, where the same number of kilometres is flown each month (supplementary journeys excluded) all the year round, the utilisation of the services by passengers hardly ever varies more than from 1 to 2. That is a very valuable characteristic of economic working. It affords a marked contrast to the European system as a whole, shown by the dotted line in the same graph; the average number—calculated per month—of passengers carried by each aeroplane belonging to a regular service varies on this system from 1 to 12 (0.9 to 11).

Graph 7 shows that, in this respect, the German Lufthansa is a typical example of the European system. The distance in kilometres flown rose from approximately 130,000 kilometres in January to 1,130,000 kilometres in August (increase from 1 to 8.5) and fell again to 260,000 kilometres in December (decrease from 8.5 to 2). Similarly, but with a certain difference in the public response to the company's offer, the number of passengers rose from under 1,000 in January to 18,000 in August (variation from 1 to 18) and dropped to 2,200 in December (from 18 to 2.2).

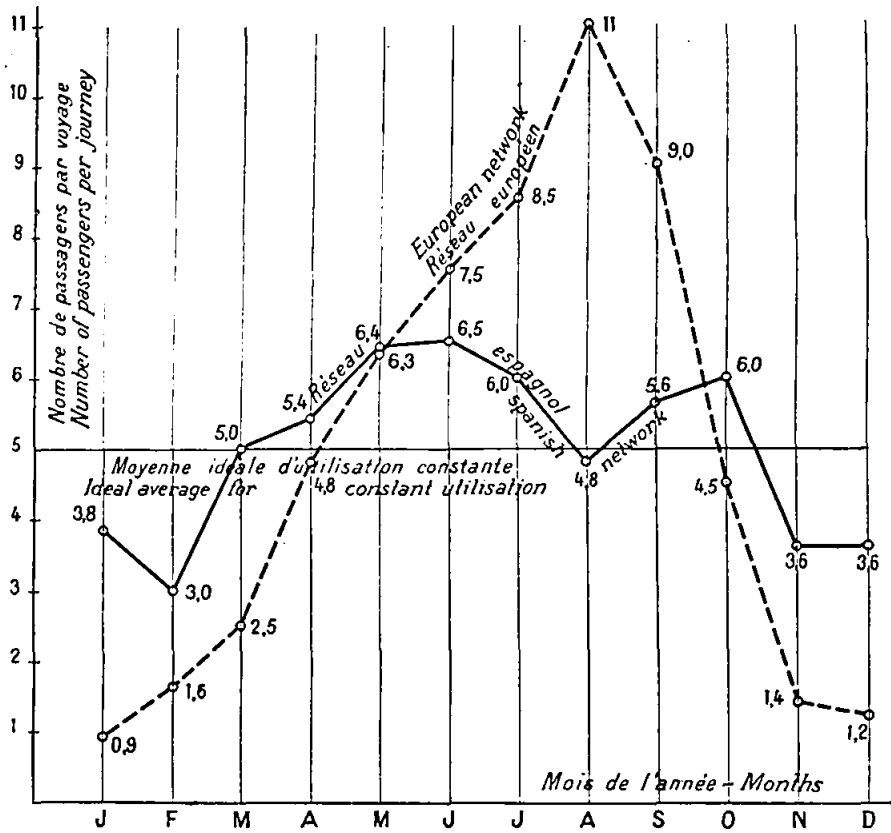
The very considerable variations in the other freights are less easy to calculate. However, I can state that, for the German services as a whole, the goods traffic (in ton-kilometres) rose from 1 (January) to 33 (August), and fell again to 6 (December), while the curve of the postal freight, on another scale, is shown as 1 to 8 to 2.5.

* * *

Lastly, I have drawn up *Table XVII* on the basis of the "Flugpläne" of the Deutsche Lufthansa for 1932. This shows for seven important air-ports of the European system the seasonal variations in the number of arrivals and departures (solely as regards aeroplanes carrying passengers according to the regular time-table).

Graph 6.

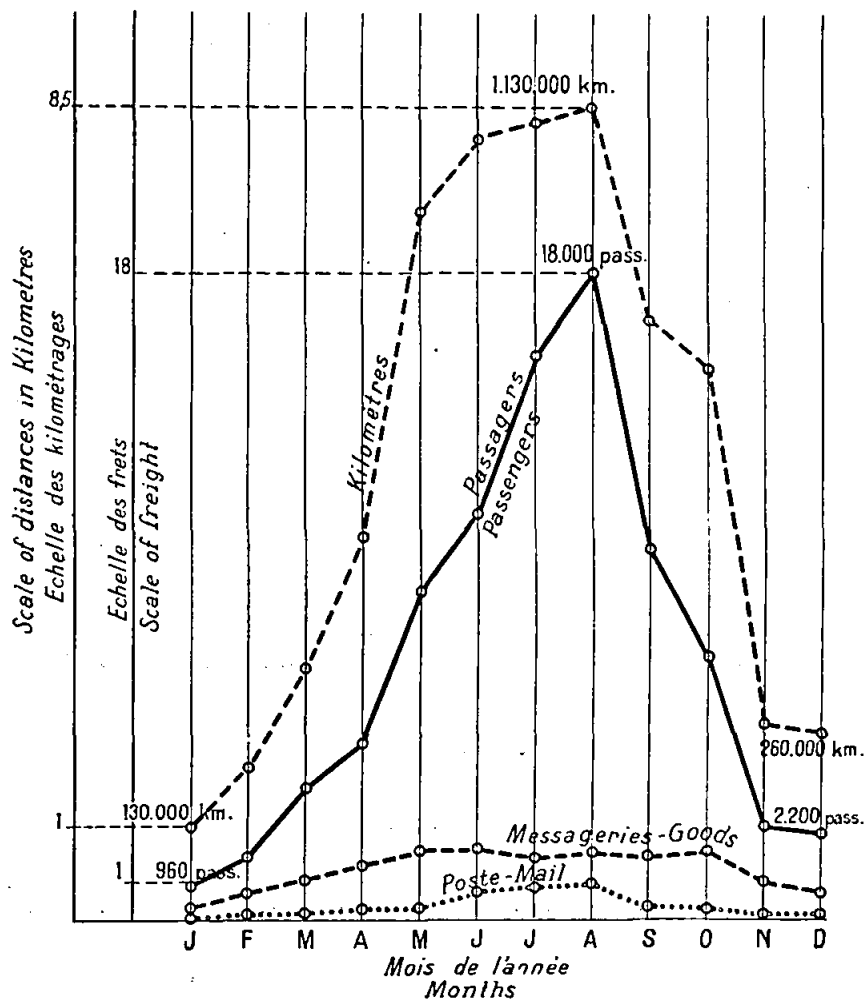
COMPARISON OF THE NUMBER OF PASSENGERS CARRIED PER JOURNEY ON THE SPANISH NETWORK AND ON THE EUROPEAN NETWORK AS A WHOLE (according to the *Revista de Aeronautica*).



Variation from 3 to 6.5 for the Spanish network, operated the year round ; from 0.9 to 11 for the European network, operation only seasonal.

Graph 7.

SEASONAL VARIATION IN THE DISTANCES FLOWN IN KILOMETRES AND THE QUANTITIES OF FREIGHT CARRIED, PER CATEGORY, ON THE *Deutsche Lufthansa* NETWORK IN 1932.



Variation, from January to August, from 1 to 8.5 in the quantity of kilometres flown during the month; from 1 to 18 in the number of passengers carried.

Table XVII.

SEASONAL VARIATION IN THE NUMBER OF DAILY SERVICES (ARRIVALS AND DEPARTURES).

| Arrivals at Departures from | Spring (1/III-30/IV) | Summer (1/V-31/VIII) | Autumn (1/IX-31/X) | Winter (1/XI-28/II) |
|--------------------------------|-------------------------|-------------------------|-----------------------|------------------------|
| Berlin | 16 | 42 | 34 | 14 |
| Cologne | 18 | 40 | 38 | 20 |
| Hamburg | 16 | 22 | 20 | 2 |
| Copenhagen | 16 | 28 | 20 | 4 |
| Amsterdam | 20 | 22 | 18 | 14 |
| Prague.. .. . | 14 | 26 | 22 | 10 |
| Vienna.. .. . | 14 | 26 | 20 | 8 |
| | 114 | 206 | 172 | 72 |

It will be noted that the average proportion of the variation from summer to winter is almost three to one. It is still larger in the case of Hamburg and Copenhagen, but much smaller in the case of Amsterdam, which is better situated in relation to the permanent system.¹

9. INFLUENCE OF A LARGE NUMBER OF STOPPING-PLACES.

Since Europe is already well provided with rapid means of transport, it might be thought that air transport would be chiefly utilised for long-distance communications —*i.e.*, those in which the saving of time is greatest.

However, in 1930, according to M. PIRATH, the average distances flown by passengers, goods and mail on three European systems were as follows :

Table XVIII.

AVERAGE DISTANCE FLOWN (1930) PER CATEGORY OF FREIGHT.

| | Passengers | Goods | Mail |
|---------------------|--------------|-------|------|
| | (Kilometres) | | |
| ITALY | 328 | 440 | 353 |
| SWEDEN | 470 | 548 | 620 |
| NETHERLANDS | 420 | 256 | 377 |

I have calculated the same values for 1930 and 1932, but in such a way as to reveal the tendency of the German and French enterprises in Europe. The result is shown in *Table XIX*.

¹ In 1933, an initial effort was made to deal with the problem of the excessively seasonal character of the traffic.

Table XIX.

COMPARISON OF THE AVERAGE DISTANCES FLOWN (IN 1930 AND 1932)
BY CATEGORY OF FREIGHT.

| | Passengers | | Goods | | Mail | |
|-----------------|--------------|------|-------|------|-------|-------|
| | 1930 | 1932 | 1930 | 1932 | 1930 | 1932 |
| | (Kilometres) | | | | | |
| GERMANY | 267 | 284 | 382 | 448 | 387 | 448 |
| FRANCE.. .. . | 537 | 565 | 560 | 493 | 1,110 | 1,180 |

Thus, the distance covered by the "average passenger", which is twice as great in the case of the French companies, still represents—after two years' interval—a journey of approximately three and a half hours, as compared with one and three-quarter hours for the German lines. What service (except, perhaps, between London and Paris) can air transport render to-day over such short distances?

The German average distances for goods and mail, although they are tending to increase, still remain—especially as regards mail—surprisingly low. Altogether, we have a system which, if account is taken of its seasonal character, is far more in the nature of propaganda than of economic utility or the fulfilment of permanent needs. Apart from the Paris-London line, this remark holds good—with a few modifications—in the case of the European system as a whole. It does much to explain the average financial weakness to which I drew attention at the beginning of this report.

CHAPTER IV.

MEANS OF ACTION ON THE BASIS OF THESE RESULTS.

Such are the results achieved up to the end of 1932. It is generally felt that, save for one or two specially favoured cases, considerable progress is necessary, and your Sub-Committee, while confining itself to the technical field, has already pointed out to the Air Transport Co-operation Committee some of the steps which, in its opinion, might be taken. I shall return to them shortly.

Instead of this cautious and analytical treatment of the question, radical measures of re-organisation, either technical or economic, have sometimes been suggested, and others also are conceivable. I think it desirable first to deal with these proposals, if only to show the objections to them, which arise not always on grounds of logic or on account of the nature of things, but in view of the present *de facto* situation of air transport in Europe.

I. REVIEW OF THE RADICAL REMEDIES SUGGESTED.

It has been said that it would be sufficient to reduce by half the total amount of subsidies, and the air-transport system would automatically adapt itself to working with reduced resources, and thus the general position would be less remote from sound economy. This happy result might come about if we had at the outset to deal with an air-transport system which, though carrying little traffic and far from financially autonomous, was the outcome of purely economic considerations. We know too well that such is not the case. Are we, then, to apply the same arbitrary coefficient for the reduction of subsidies to systems the nature and immediate prospects of which are as dissimilar as those of the modest British airways of North-Western Europe, the Italian airways in the Mediterranean or the Polish air-transport system? In other words, are we to destroy some of them and relatively strengthen the others, when hitherto there has been no question of making distinctions between their respective justifiability? Previous internationalisation would be a *sine qua non* of such a system.

* * *

Others have said that the essential is to ensure that the real price of the services rendered is paid. First of all, that is a principle from which all public economic policy—particularly in the case of transport—has been departing to a remarkable extent for the past half century; and in that respect air transport has done nothing new. Then, again, how are we to define the price of the service rendered? Is it to be the same as the price of the service offered—that is to say, the actual cost? Is not the real problem primarily that the public should attach a certain value to the services which air transport claims to give them? True, there are certain lines where, in the absence of agreements for joint management, full advantage has not yet been taken of the public favour that has been won; but perhaps there is really only one line among all the European systems which would allow of such an adjustment. Furthermore, when certain coefficients of economic utilisation amount to 10 per cent and the coefficients of financial independence to 2 per cent, what would a sharp rise in tariffs mean but a desire to “fill the vacuum”?

* * *

One might as well propose a purely arithmetical principle of organisation, reasoning as follows :

There is available for air transport in Europe an air fleet the total effective tonnage of which represents 500 tons of pay-load. In 1932, these aeroplanes and seaplanes offered the public 27 million t.-km., of which the public used about 12½ millions, which would correspond to, at most, 10 million t.-km. paid for at the full rate. Now, an air fleet of 500 tons, flying four hours a day at 170 km. an hour, produces 340,000 t.-km. daily—that is to say, 124 million t.-km. per year. If we accept the present utilisation coefficient of 46 per cent, there would be 60 million t.-km. instead of the present 12.5—that is to say, the quantity of transport actually effected in Europe might be carried with less than a quarter of the air fleet, still using it only to the extent of 46 per cent.

Our only technical hypothesis was that aircraft flew four hours a day—that is to say, 1,460 hours a year. This figure is already regularly exceeded in the United States (where certain air lines are organised on the basis of eight hours per aircraft per day for 1934), and, in Europe, one or two companies reach it with their best aircraft.

Implicitly, however, we have made a much bolder geographical and economic hypothesis : we have allowed for redistribution of means of transport—that is to say, of the national air-transport fleets—in time and space, in order that the air fleet as finally selected and organised may be more speedily utilised. We thus have a new air-transport system—in fact, the “rationalised” air-transport system which we have not yet been able to define.

Who, then, under present air-transport conditions, would be prepared to sacrifice lines the poor results of which do not even prove that they are of no value? A new aircraft and a new time-table might be sufficient to increase tenfold the value of an air connection which at present seems to be merely a useless burden on the air line.

Above all, what country, in the present state of Europe, would *simultaneously* agree to do away with such lines and to continue the national subsidies granted to those lines for the benefit of a “general pool”, the distribution of which would not necessarily give it an equivalent compensation in respect of its national interest?

* * *

I have thus been able to note certain striking inequalities as between the “activities” or the “financial autonomies” of the various lines, but I have not found a general criterion for comparison.

Nevertheless, at the end of *Chapter III*, two features connected with management have been shown to have an unquestionable influence—on the one hand, the seasonal character of transport, and, on the other, the numerous landings that account for the very short length of the average flights which air transport is called on to carry out in Europe.

Would it, then, be sufficient :

- (1) To lay down that services should be permanent?
- (2) To complete the “omnibus” transport system by “express” services making non-stop flights between important terminal points?

This would certainly mean that the present subsidies would have to be at least doubled. Similarly, the traffic results would be extremely uncertain and the risk of counter-propaganda would be very great, since Europe is not equipped for such traffic.

2. INFLUENCE OF NATURAL EVOLUTION.

Must we, then, simply fall back on a policy of *laissez-faire* and trust to time and experience to incite to selection and bring about progress? Some of the most highly

qualified of those who are doing responsible work in this field think so, and they are very ready to bring forward as an argument in favour of their theory the improvement which took place in 1933 in the results of air transport in Europe.

This general improvement cannot be denied. I regret that I have not already final figures on this point and that I cannot wait for them.¹

Yet, I should not be surprised if the increase of traffic over 1932 in ton-kilometres carried reached 25 per cent.² The coefficient of utilisation should be slightly more than 50 per cent instead of 46 per cent last year, since the putting into service of larger aircraft has counteracted the effects of the increase in traffic.

These are important results. I do not think, however, that, for Europe as a whole, the financial results of operation have appreciably increased. Greater immobilisation as a result of renewal of air fleets, the obligation to redeem capital more rapidly, and reduced rates have counterbalanced most of the progress in traffic. Above all, I doubt whether this progress can be developed or even maintained if the operation agreements, which were first intended to limit the effects of competition, do not bind the operating countries in a more general and more effective manner.

What is the origin of this increase in traffic? Education of the public, demonstration of greater security; but, above all, the putting into service of speedier and more comfortable aircraft, giving cheaper service with improved time-tables.

In this matter of technical improvement and lowering of tariffs, it will often be found that it is *impossible in practice* to do anything unless the freight offered for air transport increases *considerably*.

Can such freight increase much in Europe; Europe which we are often told is *too small and too well provided with speedy surface transport* for air transport to establish itself by reason of its speed?

But is that true? Has Europe already speedy means of transport?

Such was the first statement to be verified, the first positive fact to be ascertained. No doubt certain specialists have this information. Nevertheless, it was difficult to obtain, even approximately, though working with the assistance of specialists; and I think it desirable to give here the results of that examination.

3. EXAMINATION OF TRAFFIC SPEED IN EUROPE.

In a letter dated April 5th, 1933, I asked the Communications and Transit Section of the League of Nations to be so good as officially to consult the International Sleeping-Car Company on the real situation as regards fast communications in Europe served by surface traffic. I wrote:

“ I should like to know the minimum time taken by travel (distinguishing between hours by day and hours by night) between the following towns:

“ London, Paris, Amsterdam, Brussels, Antwerp, Cologne, Hanover, Hamburg, Copenhagen, Malmö, Stockholm, Oslo, Helsinki, Tallinn, Leningrad, Strasburg, Frankfort-on-Main, Nuremberg, Leipzig, Prague, Berlin, Danzig, Königsberg, Kaunas, Riga, Moscow, Warsaw, Cracow, Lwow, Kiew, Odessa, Cernauti, Bucharest, Istanbul, Vienna, Budapest, Belgrade, Sofia, Salonica, Athens, Ankara, Smyrna, Beirut, Cairo, Munich, Basle,

¹ In November 1933, I received certain official results for 1932, and, by the end of December 1933, Germany had not yet indicated the results *per line* for her traffic in 1932.

² As will be seen from *Table XXI*, this estimate has been checked in order to ascertain the final position: actually, there has been an increase of 22%, and the coefficient of utilisation seems in fact to be very near 50%.

Zurich, Geneva, Milan, Venice, Rome, Brindisi, Tunis, Tripoli, Lyons, Marseilles, Toulouse, Bordeaux, Barcelona, Madrid, Seville, Lisbon, Tangier, Casablanca, Oran, Algiers, Benghazi.

“ Account should then be taken of seasonal variations in time-tables so as to show specially whether the services exist all the year or not.

“ I would take as a general hypothesis that the traveller is ready to pay the maximum price and to be supplied with maximum comfort and convenience; in particular, travelling as often as possible by night and as seldom as possible by day, since we have in mind, above all, the traveller in a hurry (business-man) whose office hours are *a priori* the most valuable.”

The question of permanency and seasonal variation of the communications in question was essential, and, indeed, characteristics of frequency as well, *for we are not always dealing with daily services*. Nevertheless, I quite understand the magnitude of the work asked for, and I was not surprised that the International Sleeping-Car Company was not able in its reply to take into account questions connected with permanency and seasonal variations. The information I have received is already very full and the International Sleeping-Car Company is entitled to all our gratitude.

The members of the Sub-Committee will realise this, since I have been able, as an *annex*, to reproduce four tables which show in the case of sixty-seven European and Mediterranean towns, taken two by two, the time for travel required by the best surface means of transport.

This work is directly connected with that of the Sub-Committee, the towns in respect of which information is required being the same as those which appear on the map entitled “ Main network ”, which was examined at your previous session.

Sheet I shows 1,156 connections; Sheet II and Sheet III each show 1,122; Sheet IV, 1,089. This makes a total of 4,489 connections, which should be shown alongside the time of flight in hours and quarters of an hour, showing (in figures in *italic*) the *number of nights* occupied by the journey. In practice, such time-periods are expressly shown only in the case of about 3,000 connections. In most of the other 1,500 cases, the desired time-period is obtained by adding together the two time-periods shown in the tables.

4. AERONAUTICAL SIGNIFICANCE OF SURFACE SPEEDS.

In *Table XX* below, I have classified about thirty characteristic air-transport connections in the decreasing order of their speed, as reckoned for commercial purposes. This *table* shows that, if we take international connections over distances equal to 700 km. or more, *only one of them, Paris-Berlin, provides transport at a speed exceeding 60 km. per hour*. I am not sure that there is more than one exceeding 50 km. per hour; several (perhaps five or six) enable a speed of 40-50 km. per hour to be maintained over a distance of 700-1,050 km. For distances between 1,100 and 2,000 km. the speed falls to 30-40 km. The greater part of the connections shown in the “ main network ” of your Sub-Committee show speeds of 26, 21, 17 and even 13 km. an hour.

If, therefore, we take a network of through air communications between those terminal points providing a commercial speed of 225 km. per hour, which has to-day been technically achieved, it is possible by air to save the theoretical time-periods shown in the last column of *Table XX*. These are some of them: a saving of 9 hours 15 mins. on the route Paris-Berlin (820 km.), of 19 hours 23 mins. Amsterdam-Copenhagen (700 km.), of 36 hours 40 mins. Lwow-Sofia (750 km.), of 60 hours 13 mins. Oslo-Leningrad (1,000 km.), of 126 hours 13 mins. Moscow-Ankara (1,750 km.).

Table XX.
PRESENT SPEED OF SURFACE TRANSPORT AND POSSIBLE SAVING
OF TIME BY RAPID AIR TRANSPORT.

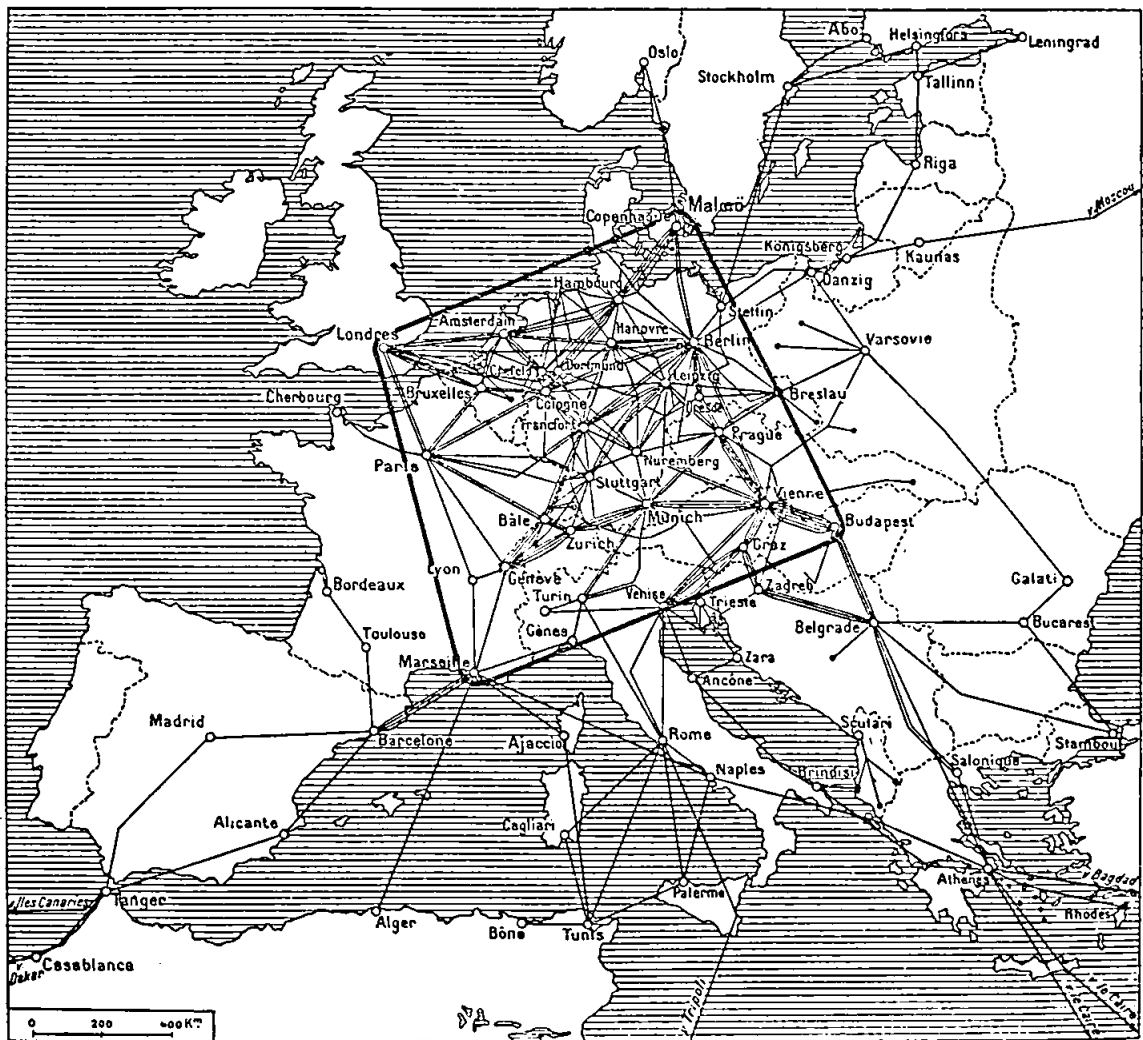
| Les temps de ce tableau sont ceux qui ont été indiqués par la Compagnie internationale des Wagons-Lits et qui figurent aux tableaux A, B, C et D annexés à ce rapport. The duration of time of this table is that indicated by the International Sleeping-Car Company, and which figures in Tables A, B, C and D annexed to this report. | | Liaisons actuelles par moyens de surface Present connection by surface means of transport | | | Liaison aérienne techniquement possible Air connection technically possible | Gain théorique possible, grâce à l'avion à 225 km.-h. Gain theoretically possible by aircraft at 225 km.-h. |
|---|---|--|---------------|---|--|--|
| | | Distance en ligne droite Distance in a straight line | Temps Time | Vitesse commerciale Commercial speed | Temps (à 225 km.-h.) Time (at 225 km.-h.) | |
| Parcours Journey | | Km. | | Km.-h. | | |
| A 60 km.-h. At 60 km.-h. | PARIS-BERLIN | 820 | 13 h. 15 | 62 | 4 h. | 9 h. 15 |
| A 50 km.-h. At 50 km.-h. | PARIS-ROME | 1.125 | 22 h. 30 | 50 | 5 h. | 17 h. 30 |
| De 40 à 50 km.-h. From 40 to 50 km.-h. | HAMBURG-ZURICH | 700 | 16 h. | 43 | 3 h. 07 | 12 h. 53 |
| | HAMBURG-COPENHAGUE | 1.050 | 25 h. | 42 | 4 h. 40 | 20 h. 10 |
| | PARIS-COPENHAGUE | 800 | 19 h. 30 | 41 | 3 h. 30 | 16 h. |
| | PRAGUE-BRUXELLES BRUSSELS | 800 | 21 h. | 38 | 3 h. 30 | 17 h. 30 |
| De 30 à 40 km.-h. From 30 to 40 km.-h. | GENÈVE-VIENNE GEVEVA-VIENNA | 1.150 | 35 h. 45 | 32 | 5 h. 07 | 30 h. 38 |
| | COPENHAGUE-GENÈVE COPENHAGEN-GENEVA | 700 | 22 h. 30 | 31 | 3 h. 07 | 19 h. 23 |
| | AMSTERDAM-COPENHAGUE COPENHAGEN | 1.150 | 35 h. 45 | 32 | 5 h. 07 | 30 h. 38 |
| | AMSTERDAM-STOCKHOLM | 2.250 | 58 h. 15 | 38 | 10 h. | 48 h. 15 |
| | MADRID-VARSOVIE WARSAW | 2.300 | 68 h. 15 | 33 | 10 h. 14 | 58 h. 01 |
| | MADRID-SOFIA | 2.400 | 64 h. 15 | 37 | 10 h. 42 | 53 h. 33 |
| | LONDRES-MOSCOU LONDON-MOSCOW | 2.250 | 73 h. | 30 | 10 h. | 63 h. |
| | MOSCOU-ROME MOSCOW | 2.400 | 64 h. 30 | 37 | 10 h. 42 | 53 h. 48 |
| | LONDRES-ISTANBUL LONDON | 1.250 | 41 h. | 30 | 5 h. 22 | 35 h. 38 |
| | ROME-VARSOVIE WARSAW | 2.200 | 83 h. | 26 | 9 h. 42 | 73 h. 18 |
| De 20 à 30 km.-h. From 20 to 30 km.-h. | ISTANBUL-STOCKHOLM | 2.250 | 89 h. 30 | 25 | 10 h. | 79 h. 30 |
| | BERLIN-TRIPOLI | 2.200 | 97 h. | 22 | 9 h. 42 | 87 h. 18 |
| | LISBONNE-TRIPOLI LISBON | 3.250 | 155 h. | 21 | 14 h. 25 | 140 h. 35 |
| | COPENHAGUE-LE CAIRE COPENHAGEN-CAIRO | 750 | 40 h. | 19 | 3 h. 20 | 36 h. 40 |
| De 10 à 20 km.-h. From 10 to 20 km.-h. | LWOW-SOFIA | 3.400 | 191 h. | 17 | 15 h. 07 | 175 h. 53 |
| | HELSINKI-LE CAIRE CAIRO | 1.000 | 64 h. 45 | 16 | 4 h. 32 | 60 h. 13 |
| | OSLO-LENINGRAD | 950 | 54 h. | 17 | 4 h. 08 | 49 h. 52 |
| | BRINDISI-ISTANBUL | 2.600 | 106 h. | 12 | 11 h. 33 | 94 h. 27 |
| | ALGER-LE CAIRE ALGIERS-CAIRO | 1.700 | 132 h. 30 | 13 | 7 h. 33 | 124 h. 57 |
| | ISTANBUL-TRIPOLI | 1.750 | 134 h. | 13 | 7 h. 47 | 126 h. 13 |
| | MOSCOU-ANKARA MOSCOW | | | | | |

First conclusion : *Surface traffic does not provide fast transport in Europe, or at least its speed bears no relation to that to which the slowest commercial aircraft has already accustomed us.*

To return to Table XX, we see that the longest connection shown, Helsinki-Cairo (3,400 km. in a straight line), requires 191 hours—that is to say, eight days and eight nights—if surface transport is used ; it can be reduced to 15 hours 7 mins. by air transport at a commercial speed of 225 km. an hour. In this case, such an estimate of speed is an optimistic one, for account must be taken of the unavoidable landings (or landing), and the need for night-flying over part of the route. But with the exception of these two connections, Helsinki-Cairo and Copenhagen-Cairo, our table shows all the flights that aircraft (at a commercial speed of 225 km. per hour) make within a time-period which is always less than twelve hours.

Second conclusion : *The European area is suitable for fast day-time flying.*

If now we take, not the whole of Europe, but the north-western zone in which the networks with the greatest density of traffic are established (the quadrilateral London-Malmö-Budapest-Marseilles), we see that the greatest distance equivalent to the longest diagonal (see below) is 1,450 km. This is barely 6½ hours' non-stop



AREA IN EUROPE WITH THE MAXIMUM DENSITY OF REGULAR AIR TRAFFIC. (The lines are only approximately correct ; the basic map used showed the network in 1931.)

flight at 225 km. an hour. Paris-Warsaw, London-Warsaw, London-Stockholm, Paris-Belgrade, London-Madrid, London-Rome, Paris-Algiers are flights shorter than the diagonal flight in question.

Third conclusion : *That part of Europe which is economically the most active will soon be one single territorial district which a fast aircraft will cross in half-a-day's day-time flying.*

5. SIGNIFICANCE OF VERY GREAT SPEEDS.

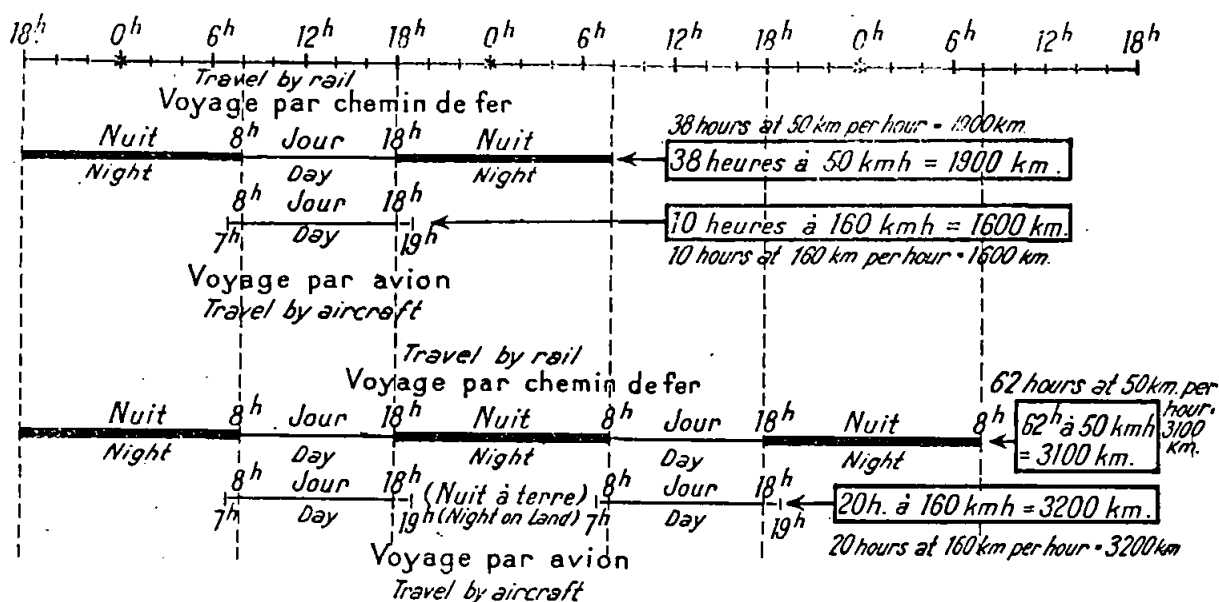
Very great speed is an essential condition to justify the use of aircraft and to cause it to be used in the near future for short and medium distances in Europe. Indeed, it is too often forgotten that the saving in time by air traffic is purely theoretical in the case of the ordinary business man. He prefers to travel during the hours of the night, which are supposed to be unproductive, provided he can rest on the journey and arrive at his destination *ready for business*.

On this hypothesis, Paris-Berlin by railway (a journey of 13 hours 15 mins., including a comfortable night in a sleeping-car and with arrival early in the morning) is infinitely preferable to a journey by air which actually starts at 7.30 in the morning and does not end before 5 p.m. (summer time-table for the line in 1933, with allowance for transport between towns and aerodromes).

In a more general way, the railway, though its speed is 50 or 40 km. an hour, runs both day and night, and thereby places a severe handicap on air transport if effected by day at 160 km. an hour. This is clear from *Graph 8*, where, in two cases, which are obviously imaginary, I show the comparative use by air and by rail of *one* and *two* working-days by a man whose time is *a priori* valuable.

Graph 8.

TABLE SHOWING A COMPARISON BETWEEN THE USE FOR TRAVEL OF RAILWAY (DAY AND NIGHT) AND AIRCRAFT (DAY).



Above : scale showing the time taken, for three days. Below : examples of use of means of transport for one or two working-days occupied in travel.

This comparison presupposes that the aircraft flies ten hours a day, which, even in summer, obliges the traveller to begin his day very early. Moreover, the ten hours of flight are necessarily interrupted by from one to three landings, with which even the average 1933 aircraft will have difficulty in keeping up for a distance of 1,600 km. the *commercial* speed of 160 km. an hour between the terminal points. It will be seen that, even if we accept this optimistic hypothesis, the railway, at 50 km. an hour, enables 1,900 km., or 300 km. more than the aircraft, to be travelled as a counter-balance to the working-day sacrificed. Furthermore, the hours during the day in a *train de luxe* are much more suitable for work or for resting the mind.

Having sacrificed two working-days, the passenger in the *train de luxe* covers (in two days and three nights) 3,100 km. at 50 km. an hour. This time, the aircraft will have caught him up; but, in order to rest from twenty hours in a *slow* aircraft in two days, the night on land on arrival will not have been any too much.

At 225 km. an hour effective commercial speed, the aircraft, in ten hours' daylight flying, easily beats the train, which travels for one day and two nights at 50 km. an hour (2,250 km. as against 1,900). In two days, the aircraft will beat the train by 1,400 km., without any need for night-flying.

The position of the fast aircraft is much more favourable still over long distances, since *there is no surface transport of 50 km. an hour over a distance of 4,500 km.*; in Europe, over 2,000 km., and even sometimes over 1,000 km., the average speed is 35 km. an hour; over 3,000 km. it falls to 20 km. an hour or less.

It might, then, be thought that the gain of 50 to 175 hours, which is obtained by aircraft, exceeds the minimum required for attracting traffic. I do not think so; in practice, these connections are very often those in which the need for speed has not yet been felt, and a much greater saving of time must be offered if passengers—and those not very numerous—are to think it worth while to change their habits.

Further, I agree that the advantage of great effective commercial speed (225 km. and over) is still more conclusive in the case of short- and medium-distance connections, particularly in the heavy traffic quadrilateral London-Malmö-Budapest-Marseilles. *There, the desire for speed already exists and is inadequately met* both by the railway and by the daylight aircraft flying at 150-160 km. an hour, according to the seasonal time-tables mentioned above.

On the other hand, at 225 km. an hour a large system of *through* connections may attract passengers who are ready to pay the fares of the main express sleeping-car trains to cover 700-1,200 km. in 16-36 hours (see Table XX). If instead of twenty-four hours' surface travel, from 8 p.m. to 8 p.m., for instance, we substitute five hours of comfortable daylight flying, we offer the special public which uses this means of travel an undoubted saving in time and fatigue, particularly if the journey both ways is taken into account and if we assume that the normal passenger prefers his own home to a hotel and a hotel to a railway berth.

We should have more tangible evidence if we took the number of high-priced seats sold during the year between two given terminal points. We should thus obtain an idea of the volume of traffic now being carried at *high* transport rates and the connections in respect of which air services would have the best prospects of securing speedy returns.

6. HIGH SPEEDS AND GROUND ORGANISATION FOR AVIATION.

High commercial speed has another advantage; it enables daylight flying to be regarded as normal flying in Western Europe—at all events, for passenger traffic. It is thus possible to continue to concentrate work in respect of light signals on those

lines where the North-European experiment in fast mail services is being carried out. This does not mean that there is no need to improve ground organisation elsewhere. On the contrary, the preliminary condition for the general spread of fast air transport in Europe is a homogeneous and widespread ground organisation, a term which does not very well express the system of connections (warnings, wireless transmissions, guidance by Hertzian waves, etc.) which I have in mind. Light signals are only one special method used in that system, and their relative importance is decreasing; in the same way *night-flying* is only a special case of *all-weather flying*, which is a necessary condition for *permanent* air services that the public would accept as normal. What we must set up are well-equipped airports, placed—unless there is a technical need for a landing-place—only at points where the traffic to be expected from the neighbouring town justifies their establishment. Between all these possible terminal points—and there are as many of them as there are destinations—meteorological protection and wireless information or guidance services must guarantee the safety of aircraft suitable for use in such permanent traffic. Thus the idea of a *protected zone* takes the place of an *equipped line*, at all events in the European zone of heavy commercial traffic. Within such a zone, all direct connections must become equally possible.

A similar “zone protection” system has been studied by M. Petzel, one of Professor Pirath’s collaborators in preparing the latest publication of the Stuttgart Institute,¹ which considers the following concrete case : Zone 300 km. in diameter, with central airport, crossed by two routes with day- and night-flying and a frequency of 1-8 aircraft per hour. The cost *per hour* of protection of flight (*Flugsicherung*) varies from 101.47 RM. (for 4 hours’ working a day) to 45.45 RM. (for 24 hours). To this must be *added, per hour of night traffic*, 77.24 RM. (if there are 4 hours’ traffic), 43.01 RM. (if there are 12 hours’ traffic) and 38.74 RM. (if there are 16 hours’ night traffic). Thus 24 hours’ protective measures, 12 of them by night, will cost 1,607 RM. daily, or 586,555 RM.—that is, about 3,578,000 francs—a year.

Another of Professor Pirath’s collaborators, M. Rössger, examines the case of the American line Richmond-Atlanta (758 km.) and estimates the cost of protection of flight over that *line* at 869,500 RM. yearly. The details of expenditure are as follows :

| | RM. |
|--|---------|
| Light signals | 268,000 |
| Five emergency aerodromes | 59,200 |
| Regional meteorological information service | 30,800 |
| Aerodrome meteorological information service | 126,500 |
| Wireless and wireless beacons | 192,500 |
| Messages by teletypewriter | 174,500 |
| | 869,500 |

This amounts to about 5,200,000 francs, or 6,880 francs per km. of line, exclusive, of course, of cost of initial establishment.

I received from the competent American administration, three years ago, the following information with regard to the expenditure in question and cost of operation (1930 dollars, reckoned at 25 francs per dollar) :

1. Cost of establishing an air route equipped with suitable beacons and light signals for night traffic : \$370 per mile.

¹ “Forschungsergebnisse des verkehrswissenschaftlichen Instituts für Luftfahrt”; No. 6 : “Die Grundlagen der Flugsicherung.”

2. Cost of maintenance of civil-aviation route, including hire of land and preparation of such land for emergency landing-places (*intermediate field*) : \$210 per mile and per year.
3. Annual hire of automatic "teletypewriter" telegraph service : \$70 per mile.
4. Establishment of a wireless beacon : \$12,000.
5. Maintenance of wireless beacon : \$6,000 per year.
6. Establishment of a wireless station for meteorological and urgent messages to aircraft : \$24,000.
7. Maintenance of wireless station : \$14,000 per year.

This somewhat heterogeneous information will at least give us a possibility of comparison with the more definitely established prices which everyone will know in such particular cases.

At all events it will be clear that, if, in Europe, we are to have a proper "protective equipment" for air transport (that is to say, an equipment making it possible to have permanent services at an effective commercial speed of 225 km.), a more substantial proportion of the public credits granted to commercial aviation will have to be used for the purpose ; perhaps 25 per cent instead of 10-15 per cent.

Lastly, it may be questioned whether the mountains and seas and climate of the Europe-Mediterranean area will not place more serious obstacles in the way of developments in this direction than that which it meets in the United States.

It would not appear that we have to fear that, if we turn to the following analysis made by M. Petzel. In the summer of 1931, the network of air communications included :

- (a) 11 per cent flight over the sea ;
- (b) 35 per cent flight in flat country ;
- (c) 3 per cent flight coastal and flat country ;
- (d) 28 per cent flight flat and fairly mountainous country ;
- (e) 3 per cent flight fairly mountainous country ;
- (f) 14 per cent flight various, including high mountains ;
- (g) 6 per cent flight high and fairly high mountains.

Thus, if we set aside the last two categories, 80 per cent of the routes over which aircraft fly would appear to be suitable for the establishment of "flight protection". Naturally, we may say that if certain lines which would have been very useful have not been established, it is simply because the route would have been too difficult to equip and protect. Nevertheless, the most active part of Europe economically includes, besides the southern part of the United Kingdom, the great north-western plain stretching from Poland to France.

The system of zone protection, even more than that of the "equipped route", requires that "technical unity of equipment" which the Air Transport Co-operation Committee recommended during its last session. On that account, we should welcome and study the idea put forward by your late colleague M. Chaumié, of "International Ground Equipment Companies", meaning by that term the general safety equipment connected with the ground. Such companies would guarantee, better than any other system, technical uniformity, uniformity in methods and even in instructions ; and such uniformity is particularly necessary in the cases—which in the near future will be very frequent—of "radioguided" aircraft approaching the ground and even landing, when the crew, which is solely responsible for manœuvring them, should be able almost by instinct to use the approaches placed at its disposal. Should not certain precautions be taken in view of the twenty or twenty-five languages spoken in Europe ?

With a view to meeting the suggestions of your Committee, the "International Ground Equipment Companies" might first be set up by means of periodical International Air Conferences and within the territorial area for which such Conferences are competent.

7. MAIN NETWORK OF PERMANENT AIR ROUTES.

Referring here to the actual words in which one of the tasks of your Sub-Committee was defined two years ago, I should like to point out the inconsistency between these terms and those I have just used: "protected zones", "direct connections", etc.

Furthermore, our Committee, examining the map of the "essential connections" which was carefully prepared by the Sub-Committee, had already recommended its revision. In its end-of-session report it asked the Sub-Committee to continue its work "on the basis of this map", but added immediately:

"This *scheme* in no way affects conditions and modes of operation; the latter may be influenced by technical progress and by the desire to connect distant points without intermediate stopping-places."

It is this possibility which is being achieved now. The progress in aviation, the need for longer direct connections, the disfavour felt for continuous light signals confining aircraft to one route—everything is tending to reduce the usefulness of a suggested network which is already inadequate. Commercial aviation to-day is proposing much more than was asked of it two years ago; it is suggesting very fast direct connections between all important destinations. A continuous itinerary from town to town can only facilitate and assist operation if the succession of landings procures traffic that more than compensates for the outlay involved.

A specialist in "air work", M. Henri Balleyguier, Managing Director of the *Compagnie Aérienne Française*, three years ago criticised contractual commercial aviation as suffering from "rail psychosis". There was much truth in that assertion; but technical progress and the economic difficulties encountered as a result of hidebound management have already done much to cure that psychosis and, above all, to make us aware of the fact. Aviation ought to be freer than is as yet realised. It is this freedom that will give it its permanent strength; at all events if we can construct a framework suitable for its operation.

8. AIRCRAFT FOR FAST AIR TRANSPORT.

Throughout Europe, commercial air-transport fleets are in full process of renewal. Undoubtedly, in this matter, most national technical experts have followed developments in America, and, indeed, certain exhibition flights—particularly those of "Swissair"—which have been carried out with American aircraft have done much to spread the conception of very high speeds.

It is therefore of particular interest to recall briefly how, during the last five years, public air-transport aircraft have developed in the United States over a network of airways allowing or necessitating landings every 400-500 km.:

Average 1929 aircraft: Single 450 h.p. engine carrying 400-450 kg. of "payload" at a cruising speed of 160 km. an hour.

Average 1932 aircraft: Triple 900-1,400 h.p. engine carrying a "payload" of 1,000 kg. at a cruising speed of 160-185 km. an hour.

1933 aircraft : The triple engine of 1,000-1,600 h.p. carrying 800 kg. " payload " at a cruising speed of 200-220 km. an hour takes a prominent place. But at the same time the attempt to obtain cruising speeds of 240, 260 and even 290 km. an hour is having the effect of " refining " single-engined aircraft of the *Lockheed " Orion "* or *Northrop* type, and has, in particular, led to the construction of a new class of 1,400 h.p. twin-engined aircraft which, while more " refined " and faster, are also more comfortable than triple-engined aircraft of the same power.

Advocates of triple engines are also pressing forward, so that the year 1934 will doubtless see existing simultaneously in the United States mixed public transport aircraft (mails—to keep the vital benefit of their contracts—parcel post and, above all, passengers) with single, twin or triple engines, carrying loads of 500-1,000 kg. at cruising speeds of 200-280 km. an hour.

In Europe, the improvement in the performance of *Junkers Ju 52-3 m.*, the appearance of the new *Dewoitine* and *Fokker* machines, and certain decisions like that of the *Deutsche Lufthansa*, which is basing its 1934 time-tables on an average travelling speed of 220 km. an hour instead of 160 km., all means the coming of fast aviation. It seems certain, however, that Europe will abandon the fast single-engined aircraft even sooner than the United States—since it does not adequately satisfy *the sense of safety*—and that Europe will be almost exclusively equipped for several years with triple-engined machines with the following characteristics : total engine-power 1,200-2,000 h.p. ; load 1,000-1,600 kg. (8-15 passengers) according to the length of direct flights, at a cruising speed of 240-270 km. an hour (time-table speed : 210-240 km. an hour).

This aircraft will supersede those which in 1932 were still carrying an average pay-load of 825 kg. with an engine-power of 630 h.p., and, in 1933, 805 kg. with 660 h.p. For 1934, therefore, there is a sharp increase in engine-power in proportion to the commercial load. At the same time, the load per square metre of carrying surface rises from 75 to 100 kg. ; the load per horse-power falls from 8 to 5 kg. ; the percentage of total weight representing the pay-load falls from 19 per cent to 12 per cent ; the maximum speed rises from 230 to 310 km. per hour and the landing speed from 80 to 100 km. per hour.

It will be noted that the margin between the extreme speeds (100 to 310 against 80 to 230 km. an hour) would thus seem to increase by 60 km. an hour (210 against 150)—that is to say, by a figure equivalent to three-quarters of the increase shown in maximum speeds (80 km. an hour). This is evidence of a very remarkable technical advance, which, however, will have to be pursued energetically. Indeed, it is a question whether the actual service will show these differences in speed and also if, once the differences are verified, they will not be insufficient in practice. Personally, I think that—so long as the hypothesis of emergency landings is not excluded—a minimum speed of 100 km. an hour is still too high ; and that, in my opinion, is sufficient to condemn the use in Europe of a very fast single engine, and perhaps of twin engines, since, should one engine stop, the remaining unit will often have to work at full pressure, even though assisted by a variable pitch propeller. I prefer triple engines, if speed and safety alone are to be considered ; or the quadruple-engined aircraft with units grouped laterally or in line along the carrying surface, if much consideration is to be shown for the comfort of passengers, particularly on long flights.

9. TECHNICAL CONSEQUENCES OF THE USE OF THE NEW FAST AIRCRAFT.

I am, however, of opinion that, within two years, the stock of aircraft of the European companies will have been renewed. On the assumption that the principles of management remain the same as to-day, 300-400 machines of 1,200-1,500 h.p.

will replace 650 machines of 660 h.p. This would be a very heavy burden, first by reason of the capital which would have to be sunk (400-500 million francs) and secondly by reason of the difficulty of keeping this aircraft fleet, the payment for which has not yet begun, up to the level of technical progress—which is developing so rapidly. It would therefore be most desirable that the various companies should not be compelled to adopt the new “uniform” technical system and that competition should enable a number of them to choose, without external pressure, the material which is most suitable for their operation and the area in which they will chiefly work. For, though I think that a speed of 225 km. an hour is necessary, I also think that it may be attained by multiple engines of average power (three engines of 150-200 h.p.).

Above all, we must not forget that, at the present stage of technical progress, high speed necessarily involves the maintenance of subsidies. It has been shown to-day that, if the needless rivalry between contracting companies were no longer fostered, it would be possible to organise a certain number of regular air services across Europe, without subsidy, at a speed of 160 km. per hour.¹ But, firstly, I am of opinion that these services would justify themselves only over very few routes, and, secondly, a speed of 160 km. an hour is not a deciding factor either in itself or mainly on account of the extra services it involves in respect of variations in weather conditions. Lastly, as there is no prospect, in present circumstances in Europe of abolishing subsidies by general consent, *the first problem is to make the best use of such subsidies in a manner enabling air transport to establish itself once and for all.*

We must therefore always be ready to take advantage of *future* technical progress, and for that reason the mass renewal of air fleets—made necessary by competition—may constitute an unfortunate hindrance. Borrowed capital spent on material is already being currently repaid at annual rates of 20-25 per cent; some of the main European companies paid off capital borrowings to the extent of 30-35 per cent during the financial year 1932. How could that be possible for any considerable time without a real or concealed increase in subsidies, so long as the seasonal traffic and overlapping or duplication as between national concerns prevent an intensive annual re-allocation? Can we expect to go on for a long time with a system which involves 200 hours per annum for four years, and then 500 hours for two years, using excessively large air fleets which we shall have to renew as soon as competition makes such renewal necessary? With an increase in the price per unit, which is the inevitable consequence of increased speed, no economically sound system of renewal will be possible until we can *deal with large numbers.* The first result of the renewals at present being carried out will, no doubt, in the case of each national operating company, be a reduction in the number of aircraft in use. Thus we should go further than a “pool” of receipts and tend in the direction of a “pool” of aircraft—that is to say, an air fleet, based on the smallest possible number of models and technical characteristics, common to a number of national operating companies *bound together* by ties of competition.

Nevertheless, it will be difficult to develop the re-allocation of aircraft speedily enough to prevent the longevity of aircraft being an obstacle to technical progress. We are thus led to determine or to establish, which will necessitate reciprocity agreements, secondary “operation areas”—that is to say, zones or lines in which there would be used aircraft, still in excellent condition but technically out of date, which, in two or three years, would have flown *only* 3,000 or 4,000 hours on the busiest European air lines. For we have already begun to count in thousands of hours.

¹ In 1933, this experiment was carried out by the “Dragon” de Havilland twin-engined aeroplanes and the “Cruiser” Spartan triple-engined aeroplanes. Accommodation was provided at 0.35-0.45 franc per km.

10. CONSEQUENCES OF OPERATION.

It is not within my competence to draw up a traffic programme of a more or less co-operative character. I will rather refer to the recommendations made by the Air Transport Co-operation Committee at its last session, which were inserted in the final Report under the title : “ *Operation of a Main Network.*”

The Committee recommended :

“ 1. Special treatment for postal services to the extent required by the exigencies of this type of freight.”

It would, I think, be very interesting to know the results obtained at the end of the 1933 season by the postal experiment made in Northern Europe. I would only point out for the moment that this seasonal operation has not yet led to the building of aircraft exclusively intended for postal work and having a capacity proportionate to the quantity of freight carried. Furthermore, in the case of *surtaxed mails*, the quantity would necessarily be very small, and if the cost of the small postal aircraft were the present rate—say 30 francs per ton-kilometre—I doubt whether it would pay its way to the same extent as passenger aircraft.

The following recommendations of the Committee apply specially to passenger transport :

“ 2. Greater frequency of air services on certain routes.

“ 3. Permanence of air services.

“ 4. Endeavour to secure greater commercial speed.”

I have already examined these points. I would add that, once *general* day air transport were provided in Europe at a rate of 225 km. per hour, it would be difficult to justify the maintenance of *night air postal services*, similarly subsidised, unless such services provided an essential connection with certain *non-daily* long-distance services. Experience has shown that few letters are so urgent that they cannot be delayed for a few hours ; if such be the case, however, there are the telegraph or telephone, or even the taxi-aeroplane let out for hire by a specialised undertaking, to meet such exceptional requirements.

To sum up, I believe in the general introduction of day air services, sometimes almost extending into the night, with very few landings, carried out by the safest fast aircraft at present proposed by technical experts. These services would be indiscriminately available for all traffic ; special measures (“ humane ” time-tables, extension of life insurance policies in the case of regular air transport,¹ further facilities for heavy baggage, compensation for delay, etc.) should, however, be taken with a view to increasing passenger traffic, which at present provides two-thirds of the receipts and might be *enormously* developed if the service given became more effective.

It is for the purpose of making such services more effective that attention should be given to the recommendation of the Committee as to the “ constant endeavour to make the best use of the possibilities of combined transport ”. A traveller should—particularly at night—be allowed to make use of a train if he takes a through ticket by air between any two terminal points, should the time of his journey be shortened by taking the train.

It would, further, be most desirable, in order to avoid the sterile competition which is already taking shape, to raise the whole problem of fast transport across Europe. The aeroplane should offer its *co-operation* to the previously established surface means

¹ But not automatic insurance of all passengers, which is a heavy burden on the operating company.

of transport ; in so far as it is also subsidised, air transport has no right—even if it has the means—to set itself up as a stern rival of the railway or of shipping. For the second time I therefore point out to the members of the Sub-Committee that, besides the problem of *combined* transport, the problem of transport by mutual arrangement (“*transports conciliés*”) requires a solution which will have to be dealt with by the Governments.

If such negotiations are undertaken, the question of rates will be raised ; I do not intend to deal with it here. In view of the official replies that have been received, I only desire to lay stress on the serious character of this problem. There is no doubt that the fall in air rates has been brought about by competition between subsidised air companies much more than by the desire of competing with surface transport. The fact remains, however, that, in the period 1930-1933, after allowance has been made for the reductions and rebates currently practised in Europe (books of tickets, etc.), the average one-way rate has fallen from 1 fr. to 0.70 fr. per passenger-kilometre, and from 0.90 fr. to 0.55 fr. in the case of return tickets. I only hope I was no true prophet when I raised before you the spectre of “ free transport ”.

II. CONSEQUENCES OF ORGANISATION : FROM THE “ POOL ” TO THE DENATIONALISED COMPANY.

Last recommendation of the Committee :

“ Co-operation between national companies concerned, as the best method of operating international services ”.

The inclusion of this passage in the Report is due to inadvertence on the part of myself, the Rapporteur. The above opinion was expressed in the reply of *one* of the members of your Sub-Committee to the questionnaire of November 12th, 1931. Through this oversight, the report of the Sub-Committee (in 1932) gave this individual opinion a general character. I naturally set forth the opinion in question in my preliminary summary, which was an objective review of the opinions expressed. As there was no discussion, and as the view in question was the only one expressed on this matter, it passed on from the initial summary to the report of the Sub-Committee and then to the final Report of the Committee, which gave it the value of a general recommendation.

You will all recall that the question of partial pools, of the complete pool and of the “ international company ” formed the chief subject of your discussions in 1932. though no agreement was reached. Furthermore, at the second session of the Committee, held at Geneva, May 9th-12th, 1932, the Chairman stated, in connection with the study of the “ legal status of an international company ”, that, *in spite of the disagreement of members of the Committee on this subject*, there could be no question of the Sub-Committee’s interrupting its work on this matter.

The present work having been undertaken at the request of the Sub-Committee, I have thus doubly the right not to feel bound by the “ recommendation ” of the Committee.

In fact, I feel less than ever that “ co-operation between national companies concerned ” can provide—particularly in the European area—“ the best method of operating international services ”.

Already the “ average air service ” (I do not mean the “ average passenger journey ”) in 1933 flies over three national territories ; in the near future, with increased speed and radius of action, that number is bound to increase. Above all, the general spread of “ direct connections ” will lead to a regular system of unvarying routes being replaced by more and more frequent and free undetermined crossings of routes. *The problem will therefore be to give air transport the freedom which is natural to it, but which as yet it has practically not demanded.*

What, then, will be the value of the solution of the "pool", should the "pool" not be a complete one? We have seen from our four large maps, where the services provided for by the "pool" are shown in thicker lines, what a small proportion such services still represent. This is not through lack of goodwill, since the present companies themselves—so long as they keep profits separate and distinct from national subsidies—can only benefit from such a system. It is rather incapacity to bring into a common framework national airways which have sometimes a common field of operation, but have no common measure, still less a *common aim*.

I should, however, have been glad to explain here more definitely the real nature of the "pools", as well technical as administrative and financial. But by its letter of March 7th, 1933, the International Air Traffic Association, which was duly consulted, informed the League of Nations that "particulars concerning 'pools' should be given by the respective Governments".

I am all the more ready to believe this, since "pools" are sometimes an indirect means of competition. I have already told the Committee that the *Deutsche Lufthansa*, at the end of 1931, denounced the danger of "Ueberfremdung" (excessive participation of foreign companies in German air transport) which it ran from "pools", even those negotiated and concluded by itself; the German company reverted to the subject in 1933 in the same terms. The maximum of subsidies being limited, such "abandoning of traffic to foreign companies" is regarded by the *Lufthansa*, not as an amputation, but as a relief from a burden; it can thus devote all its efforts to more important traffic or to traffic connected with more ambitious schemes.

* * *

In conclusion, I would once more state that the problem of air transport has not yet been raised in Europe as a matter of public utility.

Is it desired to raise it as such?

If not, obstacles will arise in the way of the *national aircraft in international transport*; these obstacles will become more formidable and opposition will be more resolute the more ambitious certain national programmes may appear and the farther they may seem from economic or financial realities, and the more powerful assistance is provided in furtherance of them by the renewal of material.

If the answer is "Yes", as it should be, the new realities of the situation must be taken into account—namely, a Europe in which aircraft, in order to have that freedom which is natural to them, can no longer follow routes imposed on them and cannot keep to Customs airports, "corridors of approach" or "prohibited zones".

If aviation were untrammelled, would it be so as far as States are concerned? Some may desire that it should, but nobody can believe that it would.

Suppose that the technical progress of to-morrow enabled air transport to be financially independent, how could the Governments of a divided and mistrustful Europe allow the indefinite development of a powerful means of transport when aircraft sent on peaceful missions over national territories and to the very heart of those territories may also carry out other missions? Thus the problem is and remains a political one. It cannot be solved by experts.

* * *

Even if the study of this political problem were not shortly to be undertaken, the task of the Air Transport Co-operation Committee remains an important one, and I hope that this Report—after being brought up to date for 1933 and discussed—may to some extent assist them.

It will further be seen that, up to the last pages, I have always dealt with the present situation without assuming that some political decision may soon make a

radical change in it. With this hypothesis of continuity, subsidised air transport in Europe knows fairly well on what resources it can rely.

Sir Eric Geddes, speaking of subsidies to commercial aviation, said one day that they made it possible to "buy the future". This may be true, but in Europe it would be true only if the present subsidies were used to multiply direct and fast air services across territory better equipped and more freely accessible.

The future which subsidies would thus buy would be based on co-operation, and necessarily close co-operation. Aviation, therefore, if it won such a victory, would bring to the moral unity of Europe a contribution which would perhaps prove decisive.

Part II

**THE EVOLUTION OF AIR TRANSPORT
IN EUROPE IN 1933**

Part II

THE EVOLUTION OF AIR TRANSPORT IN EUROPE IN 1933

CONCLUSION.

A. VARIATIONS IN QUANTITIES.

Under the same conditions as in *Chapter I*, and as far as possible on the basis of official replies and documents, I have summarised in *Table XXI* the traffic results in kilometres for 1933.

A comparison with *Table I* shows that, between 1932 and 1933, taking the European network :

The number of kilometres flown increased by 5,070,777, or 17 per cent ;
The number of passenger-kilometres increased by 27,873,642, or 25 per cent ;
The number of ton-kilometres increased by 2,885,806, or 22 per cent. This increase represents 25 per cent on passenger traffic, 18.5 per cent on goods traffic, and 16.5 per cent on mails.

B. VARIATION IN RETURNS.

To ascertain this variation, I now rely on only one index of comparison, that which in *Chapter I* I called P_2 , defined as :

$$P_2 = \frac{\text{Receipts from customers.}}{\text{Total revenue.}}$$

This ratio shows at a glance the degree of *financial autonomy* of the concerns, since, if $P_2 = 1$, the revenue consists, by definition, solely of receipts from customers.

As in 1932, no national contractual air line in Europe had in 1933 reached that stage ; but it will be seen from *Table XXII* that four countries, and not three as in 1932, have reached or passed the ratio $P_2 = 0.5$. In other words, assuming that we take this criterion only, they are more than half the way towards financial autonomy. These countries are : the Netherlands (0.76), Finland (0.70), the United Kingdom (0.61), and Denmark (0.55). In the case of the last-named country, it should be pointed out that we have only the total figure of traffic receipts, and that, as they amounted in 1933 to almost three times the total earned in 1932, it is conceivably possible that a total lump-sum payment for mails, in the nature of a subsidy, was made.

Table XXI.

REGULAR AIR TRANSPORT OF SUBSIDISED COMPANIES.

Quantities of Transport produced—1933.

(For detailed comparisons see Table I.)

| | Kilometres | Passenger-kilometres (1) | Ton-kilometres | | | | Coefficient of utilisation (%) |
|--|------------|--------------------------|----------------|-----------|-----------|------------|---------------------------------|
| | | | Passengers (1) | Goods | Mails | Total | |
| GERMANY—Deutsche Lufthansa (Europe) .. | 8,926,355 | 34,151,128 | 2,720,000 | 957,178 | 185,048 | 3,862,226 | 46 |
| AUSTRIA—"Oelag" .. | 493,649 | 1,537,000 | 123,277 | 19,000 | 3,300 | 145,577 | |
| BELGIUM—"Sabena" .. | 1,036,255 | 2,789,720 | 223,178 | 96,785 | 11,856 | 331,819 | 32 |
| UNITED KINGDOM—"Imperial Airways" (Europe and London-Egypt) .. | 1,575,000 | 22,121,000 | 1,809,680 | 339,200 | 211,200 | 2,360,080 | 68 |
| DENMARK—D.D.L. .. | 209,705 | 844,275 | 67,520 | 19,002 | 9,605 | 96,127 | 48 |
| SPAIN—L.A.P.E. .. | 523,220 | 2,078,000 | 166,040 | 28,700 | 33,700 | 228,440 | |
| FINLAND—"Aero O.Y." .. | 225,104 | 781,170 | 62,494 | 12,799 | 11,591 | 86,884 | 52 |
| FRANCE—Five companies (then, for seven months, Air-France) for the European network .. | 7,468,000 | 24,653,000 | 1,968,000 | 780,000 | 204,000 | 2,952,000 | 53 |
| GREECE—S.H.C.A. (E.E.F.S.) .. | 348,609 | 2,169,680 | 173,520 | 50,200 | 3,692 | 269,055 | 70 |
| HUNGARY—"Malert" .. | 127,730 | 617,625 | 49,360 | 6,000 | 7,212 | 62,572 | 53 |
| ITALY—(European network) .. | 4,763,863 | 17,407,954 | 1,392,636 | 336,428 | 147,869 | 1,876,993 | 42.5 |
| NETHERLANDS—K.L.M. (Europe) .. | 2,211,632 | 11,000,000 | 950,893 | 340,000 | 60,000 | 1,350,893 | 54.1 |
| POLAND—P.L.L. "Lot" .. | 1,469,469 | 4,108,763 | 305,879 | 105,521 | 6,738 | 418,138 | 40.4 |
| ROUMANIA—L.A.R.E.S. .. | 243,564 | 600,000 | 48,000 | 4,000 | 8 | 52,008 | 70 |
| SWEDEN—A.B.A. .. | 371,713 | 2,869,678 | 229,520 | 60,000 | 54,967 | 344,487 | |
| SWITZERLAND—"Swissair" (international network) .. | 761,100 | 2,518,525 | 201,482 | 23,283 | 26,459 | 251,224 | 47 |
| CZECHOSLOVAKIA—C.L.S.—C.S.A. ... | 967,600 | 2,860,139 | 228,800 | 82,901 | 3,063 | 535,720 | 43 |
| YUGOSLAVIA—"Aeropot" .. | 223,784 | 503,591 | 40,280 | 2,619 | 113 | 43,012 | (314,764 according to C.I.N.A.) |
| GERMANY-U.S.S.R.—"Derulft" .. | 1,216,403 | 3,600,000 | 288,000 | 95,000 | 20,208 | 403,208 | |
| Whole area considered { 1933 .. | 34,142,755 | 137,211,288 | 11,048,559 | 3,258,616 | 1,000,629 | 15,307,804 | |
| { 1932 .. | 29,071,978 | 109,337,646 | 8,817,000 | 2,748,326 | 856,652 | 12,421,998 | |
| Differences { Absol. fig. | 5,070,777 | 27,873,642 | 2,231,559 | 510,290 | 143,977 | 2,885,806 | |
| { Percentage | + 17% | + 25% | + 25% | + 18.5% | + 16.5% | + 22% | |

(1) In this estimate, the passenger (with free luggage allowance) is reckoned at 80 kg. and not 100 kg., the figure adopted in the official statistics of certain countries, which is less in accordance with the facts.

Albania has not been included, as we have only the absolute figures, which are naturally small (e.g., 102,000 km. in 1933) and do not affect this comparative table.

Uncertain figures, whether calculated by analogy or by approximate breaking-up of total figures, are shown in italics.

Table XXII.

COMPARATIVE POSITIONS OF CONCERNS IN 1932 AND 1933, AS REGARDS "FINANCIAL AUTONOMY".

| Country | Receipts from customers | | Official subsidies | | Financial autonomy (P ₁) | | |
|--------------------------------|-------------------------|--------------------------|-----------------------|-----------------------|--------------------------------------|-----------|-----------|
| | 1932 | 1933 | 1932 | 1933 | 1932 | 1933 | Variation |
| GERMANY (1) .. | 6,083,124 RM. | <i>9,569,399 RM.</i> (3) | 14,100,000 RM. | 17,311,071 RM. | 30.1 | 35.4 | + 4.3 |
| AUSTRIA | 446,392 S. | 454,474 S. | 1,530,000 S. | 1,486,500 S. | 22.5 | 23 | + 0.5 |
| BELGIUM | 5,824,470 B.f. | 5,563,880 B.f. | 16,218,522 B.f. | 16,549,392 B.f. | 26.5 | 25.2 | — 1.3 |
| United Kingdom | 360,000 £ | 340,000 £ | 200,000 £ | 200,000 £ | 64.2 | 61 | — 3.2 |
| DENMARK (2) .. | <i>150,000 D.c.</i> (3) | 423,000 D.c. | 350,000 D.c. | 350,000 D.c. | 30 (3) | 54.6 | +24.6(3) |
| SPAIN | 603,125 P. | ? | 3,450,000 P. | ? | 14.8 | ? | — |
| Finland (2) .. | 3,100,704 F.m. | 3,464,982 F.m. | 1,943,930 F.m. | 2,118,900 F.m. | 61.4 | 70 | + 8.6 |
| FRANCE | 31,971,701 F.f. | 29,300,000 F.f. | 124,829,625 F.f. | 109,588,000 F.f. | 20.3 | 21 | + 0.7 |
| GREECE | 6,428,209 Dr. | 7,076,354 Dr. | 18,000,000 Dr. | 14,752,667 Dr. | 26.3 | 32 | + 5.7 |
| HUNGARY | 84,592 Pengö | 75,587 Pengö | 200,000 Pengö | 200,000 Pengö | 29.9 | 27 | — 2.9 |
| ITALY | 6,658,203 Lire | 6,889,255 Lire | 72,223,538 Lire | 72,377,644 Lire | 8.4 | 8.7 | + 0.3 |
| Netherlands .. | 900,117 Fl. | 1,241,777 Fl. | 628,044 Fl. | 404,268 Fl. | 58.9 | 76 | + 17.1 |
| POLAND | 420,710 Zl. | 447,993 Zl. | 5,312,000 Zl. | 5,603,215 Zl. | 7.3 | 7.4 | + 0.1 |
| ROUMANIA | 559,522 Lei | 615,084 Lei | 8,590,000 Lei | ? | 6.1 | ? | ? |
| SWEDEN (2) .. | 581,000 S.c. | 889,453 S.c. | 1,257,000 S.c. | 970,500 S.c. | 31.6 | 48 | + 16.4 |
| SWITZERLAND .. | 347,230 S.f. | 563,733 S.f. | 1,474,504 S.f. | 1,120,702 S.f. | 19 | 33 | + 14 |
| CZECHOSLOVAKIA | 1,749,149 C.c. | 2,415,819 C.c. | 13,801,510 C.c. | 13,860,000 C.c. | 11.2 | 15 | + 3.8 |
| YUGOSLAVIA .. | 642,907 Din. | ? | 6,276,573 Din. | ? | 9.2 | ? | ? |
| GERMANY- U.S.S.R. (Derulft) | 618,965 RM. | 663,173 RM. | 1,851,395 RM. | 2,616,912 RM. | 25 | 20.2 | — 4.8 |

(1) In the absence of official information, I have taken the figure for "traffic and other receipts" shown in the 1933 balance-sheet, and have, by analogy with other balance-sheets, deducted about 1/10th—i.e., 1,000,000 RM.; the figure shown under "receipts from customers" is the difference, or 9/10ths of the total revenue shown.

(2) It would be interesting to know how much of the revenue of the Swedish Danish and Finnish lines is derived from mail contracts, so far as the latter involve a lump-sum payment.

(3) In italics, uncertain or estimated figures.

The variations of the index P_2 between 1932 and 1933 are shown in the last columns of *Table XXII*. They are particularly high for the Netherlands (+ 17.1%), Finland (+ 8.6%), Sweden (+ 16.4%), and Denmark (+ 24.6%). There appears to have been substantially no change in the position of the United Kingdom.

These five national lines represent a total of somewhat more than 4 million ton-kilometres actually carried, or about 27 per cent of the European total.

The remaining 73 per cent has been produced in much less satisfactory conditions. The French and Italian lines (31 per cent of the grand total) are practically no nearer financial autonomy. The German lines (25 per cent of the grand total) seem to have improved their autonomy coefficient by about 4 per cent; but, in the absence of detailed information as to the subsidies, every reservation must be made as to the indirect support (supplies of material, payment for training supernumerary personnel) that may have been received by the Lufthansa.

Apart from Switzerland (+ 13%), the other lines show very small increases or decreases in the autonomy coefficients, which, as a whole, are low; these national lines form a very small proportion of the whole European system, which of course does not make them any less interesting, but prevents their having any serious influence on the general result that it is my primary object to ascertain.

C. THE RESOURCES EMPLOYED.

1933 was the first year in which the European air lines showed a marked trend towards speedier renewal of material and more intense utilisation of modernised fleets. While the latter, therefore, still continued to consist officially of a comparable number of aeroplanes and seaplanes, served by equally numerous crews, this must be ascribed mainly to what I have already called "statistical overcrowding". Only the results for 1934, and more particularly for 1935, will enable us to adjudge the efforts made in Europe to reach the "utilisation" percentages of personnel and material which the United States achieved as far back as 1932.

As evidence, it may be pointed out that, on December 31st, 1933, Air-France was certainly not employing more than 100 aeroplanes in Europe (instead of 181 a year earlier), and was getting out of each of them, not, as before, 234 hours' work annually, but at least 400. In Belgium, the S.A.B.E.N.A. had, in 1933, reached the point of getting each of its pilots to fly 438 hours, instead of 375 in 1932. In Italy, the turnover of material increased by 15 per cent between 1932 and 1933, *without any reaction on the personnel*.

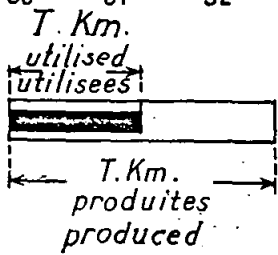
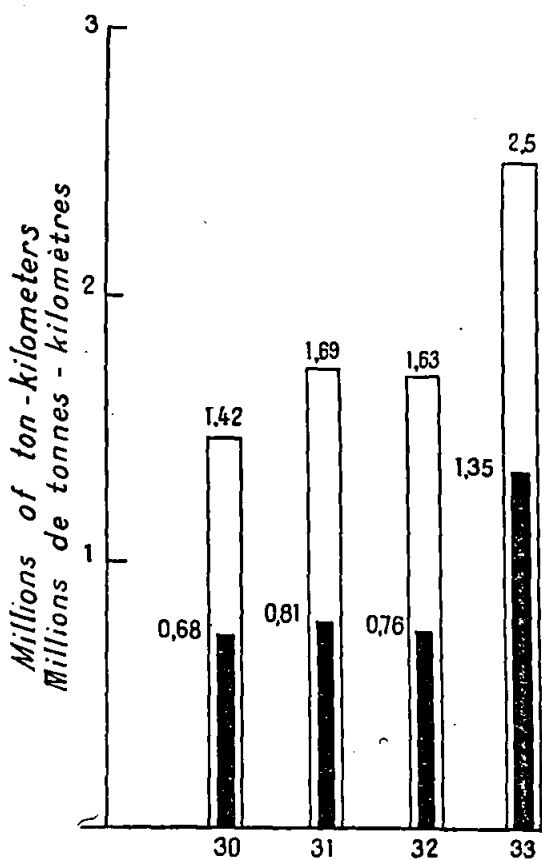
In this connection, it should also be pointed out that most European companies could work with far fewer pilots without reaching the American averages, or even the legal limits, recently fixed at 1,000 hours per pilot per year, in the United States. Governments, however, sometimes impose supernumerary staff on the companies, and oftener still the companies find themselves, in times of depression, unwilling to dismiss good professional pilots, who would be likely to swell the ranks of the unemployed. This, moreover, is not a problem peculiar to commercial aviation; but it affects the return from air transport as it does other working returns, and must be taken into consideration before rigid conclusions are drawn from statistics alone.

D. EXTREME CASES OF AIR TRANSPORT IN EUROPE.

Imperial Airways are possibly second to no other European line as regards economic working. It is, however, difficult, in the case of a concern whose main justification

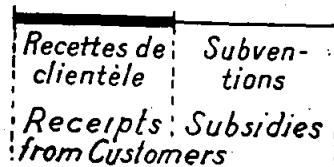
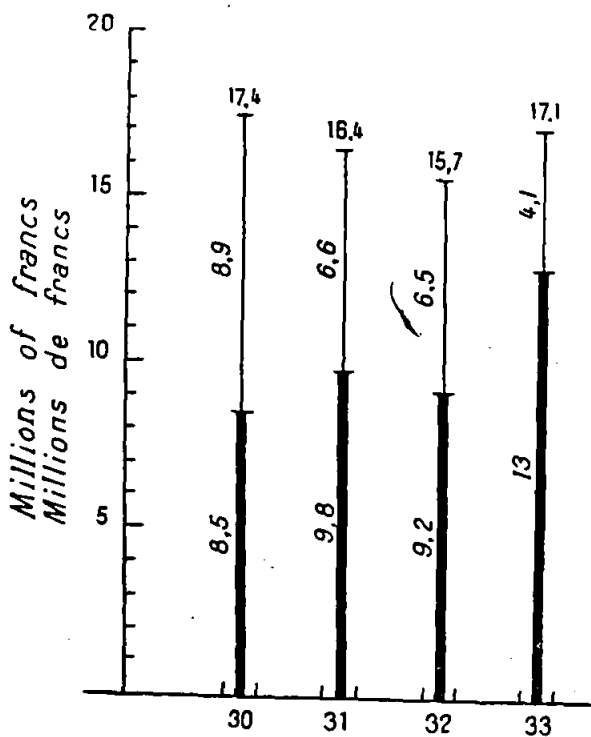
Graph 9.

VOLUME OF TRAFFIC OF THE K.L.M.,
1930 TO 1933 INCLUSIVE.



Graph 10.

ECONOMIC RETURN EARNED BY THE
K.L.M., 1930 TO 1933 INCLUSIVE.



lies in Imperial communications, to see what advantages the European lines only have over the rest. Moreover, the British Government does not supply separate figures for the revenue earned *by each line* of Imperial Airways.

To get an idea, therefore, of the best achievements of air transport in Europe, the proper way is to analyse the returns of the Netherlands K.L.M. for its European network (omitting the Indies line, even as regards its Amsterdam-Athens-Cairo section).

In 1933, for the whole of its European network, the K.L.M. received a subsidy of 404,268 florins. At the same time it earned :

| |
|--|
| 825,182 florins in <i>passenger</i> revenue, |
| 305,406 florins in <i>goods</i> revenue, |
| 35,309 florins in <i>luggage</i> charges, |
| 75,880 florins in <i>mail</i> charges, |
| <hr/> |
| or 1,241,777 florins total revenue. |

The revenue from traffic therefore amounted to 13 million francs, as compared with 4,100,000 francs Government subsidy. The financial autonomy of the line was therefore 76 per cent, and the Company is only 24 per cent away from its assumed goal—economic independence.

Graphs 9 and 10 show at a glance the changes from 1930 to 1933 inclusive, first in the quantities of traffic produced by the Company, and secondly in the revenue (both from customers and from the State) which it has succeeded in setting off against the former. Particular attention will be attracted by the striking achievement of the K.L.M. in 1933, when, by putting on bigger aeroplanes, extending the services, and making them more frequent, it raised the number of ton-kilometres produced from 1,630,000 to 2,500,000. Of this 50 per cent higher number, it succeeded in utilising and selling a higher proportion than with the lower figures of previous years. At the same time, it raised its coefficient of financial autonomy from 58.5 per cent (1932) to 76 per cent (1933).

This splendid result is mainly due to the comparatively small size of the system served ; to the fortunate position occupied by the Netherlands, at the intersection of the most important trade routes for the whole of Northern and North-western Europe, which is economically the most active ; and to the proportion maintained between the resources employed and the results that can be expected. Additional advantages are the Free Trade system traditional in the Netherlands, and the determination of those in control of the Company to have the requisite machines built or purchased, at the proper time and in the proper place.

In spite of the difficulties of 1934, the K.L.M. would appear to have even bettered during that year the results of 1933. According to Press statements, traffic receipts for the whole system covered 82 per cent of total expenses ; what is certain is that the traffic figures show a fresh and very striking increase.

* * *

Taking the question from the standpoint of financial return, commercial air lines such as those in Italy seem to be badly handicapped as compared with the K.L.M. As there can be no question of the *quality* of the personnel and machines, and as such widely different results must be primarily attributed to insuperable differences in economic geography, I have no hesitation in pointing to the following facts. In 1933, the Italian air services—all covering the territory dealt with in my report—produced

4,360,000 ton-kilometres, 1,880,000 of which were utilised, or 40 per cent more than the K.L.M. Yet the Italian revenue from customers does not exceed 9,000,000 francs, as compared with 94,000,000 francs in subsidies. The following table shows the comparison between the two national concerns :

| | | Per ton-kilometre carried | |
|-------------|---------|----------------------------|-----------------------|
| | | Receipts from customers | Government subsidy |
| | | Francs | Francs |
| Netherlands | | 9.60 | 3.00 |
| Italy | | 4.75 | 50.00 |

Thus, for each ton-kilometre *carried*, the Italian lines require receipts totalling 54.75 francs, whereas the K.L.M. can manage with 12.60 francs. This striking difference is only to a small extent due to the utilisation of the tonnage afforded (54 per cent by the K.L.M., 43 per cent by the Italian lines). It is due more to the difference in the rates actually charged : the K.L.M. earns *twice as much* on every ton-kilometre. Finally, it may be suspected that the machines operated on the Italian lines are expensive to run, and that a great proportion of the ton-kilometres carried pays no, or merely nominal, charges. *In these circumstances, if transport is the real objective of commercial aviation in Europe, it will be seen that the Italian Government pays seventeen times as much as the Netherlands Government per unit of actual transport.*

It will be gathered that, in setting down these figures, I have no desire to make invidious comparisons. I would merely point out that in 1934, as in 1933, the organisation of air transport in Europe is still faced with the same *main* obstacle : the impossibility of generalising by merely technical action, over the whole of a network that is extremely heterogeneous, the results obtained on certain profitable routes by favoured companies which know how to take advantage of their privileged position.

* * *

No official figures for the whole of 1934 are available as I conclude this survey, but I feel I can say that the advance made in 1933, as compared with 1932, has not as a whole been maintained either in respect of quantity or of quality (quality being, *ex hypothesi*, represented by the degree of financial autonomy) ; the European network considered by the Committee is undoubtedly just as far away from independence, and its economic activity is no higher at the end of 1934, than it was two years earlier. The general reasons for this state of affairs are known ; it should, however, be borne in mind that European commercial aviation, nearly three-fourths of the cost of which is still carried on national budgets, has to that extent been very largely sheltered from what is known as the " slump " ; its subsidies have hardly been reduced at all. It is, however, still waiting for the most valuable gift that it could receive : a doctrine of collective action calculated on a European scale to meet European needs, and based on strictly economic lines.

January 12th, 1935.

(Signed) Henri BOUCHÉ.

[Communicated to the Council
and the Members of the League.]

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Geneva, August 10th, 1935.

LEAGUE OF NATIONS

ORGANISATION FOR COMMUNICATIONS AND TRANSIT

JURIDICAL AND ADMINISTRATIVE SYSTEMS
IN FORCE ON THE
FRONTIER SECTIONS OF RAILWAY LINES
AND AT JUNCTION STATIONS

2

Series of League of Nations Publications

VIII. TRANSIT ✓

1935. VIII. 2.

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JURIDICAL AND ADMINISTRATIVE SYSTEMS IN FORCE ON THE FRONTIER SECTIONS OF RAILWAY LINES AND AT JUNCTION STATIONS

At its eighth session, held at Geneva from May 28th to May 31st, 1935, the Permanent Committee for Transport by Rail¹ had before it a study by the Secretariat relating to the juridical and administrative systems in force on the frontier sections of railway lines and at junction stations, and a report by a small Committee² which has dealt with this question.

The Permanent Committee examined and approved the above-mentioned study and report, the conclusions of which it endorsed, and transmitted them to the Advisory and Technical Committee for Communications and Transit. It expressed the hope that they would, as far as possible, serve as a basis for the framing of agreements, where these do not as yet exist and in general as solutions which best meet both the interests of the public and those of the railway administrations.

The small Committee's report and the Secretariat's study are reproduced below.

-
- ¹ The Permanent Committee for Transport by Rail is composed as follows :
- M. R. HEROLD, District Director of the Swiss Federal Railways (*Chairman*).
 - M. M. CASTIAU, Secretary-General of the Belgian Ministry of Transport
 - M. C.-M. GRIMPRET, Vice-President of the General Bridges and Highways Board and of the Supreme Public Works Council of France
 - M. G. SINIGALIA, formerly Chief Inspector and Administrative Adviser of the Railways of the Kingdom of Italy
- Sir Francis DENT, formerly Chairman of the Railways Committee of the Second General Conference on Communications and Transit, ex-Managing Director of the South-Eastern and Chatham Railway.
- Dr. H. GRÜNEBAUM, Ministerial Counsellor at the Austrian Federal Ministry of Commerce and Communications.
- M. A. KRAHE, Bridges and Highways Engineer (Spain).
- M. F. MOSKWA, Head of Division at the Polish Ministry of Communications.
- M. E. SPELUZZI, Engineer (Argentine Republic).
- Dr. CHING-CHUN WANG, M.A., Ph.D., LL.D., representative of the Chinese Ministry of Railways and Director of the Government Purchases Board in London.
- Colonel T. A. HIAM, former Assistant to the President of the Canadian National Railways
- M. Albert REGNOUL, Honorary Assistant Director of the Paris-Lyons-Mediterranean Railway Company
- Secretariat : M. J. L. METTERNICH.
- } Bureau.
} Technical Advisers
} assisting the Chairman.

- ² The Small Committee was composed as follows :
- M. HEROLD (*Chairman*), M. SINIGALIA, M. GRÜNEBAUM, M. REGNOUL and, in an expert capacity, M. J. DAVID, Section Counsellor at the Czechoslovak Ministry of Railways.
- Secretariat : M. METTERNICH.

REPORT BY THE SMALL COMMITTEE

In order to give effect to the terms of reference conferred on the Permanent Committee for Transport by Rail by the Advisory and Technical Committee for Communications and Transit at its fifteenth session, which was held from September 4th to 6th, 1930, regarding the examination of the possibility of drawing up standard conventions on railway frontier traffic, the Chairman of the Permanent Committee considered it expedient, with a view to facilitating this examination, to collect, with the assistance of a few experts and through the Secretariat, the fullest possible information as to the present situation in various parts of the world and particularly in Europe.

A small Committee held several meetings at which it endeavoured to classify systematically the material collected and to obtain a fairly detailed comprehensive idea of the existing regulations on the matter.

In carrying out this task, the Committee did not feel called upon to criticise existing conditions, for which there must necessarily be some reason, or *a fortiori* to tell the Members of the League what they ought to do in the future, but, in view of the existing state of affairs in certain cases, the Committee nevertheless deemed it advisable to set forth the actual position as systematically as possible, so that, should any Member of the League wish to do so, it would be able to obtain information from the following study and perhaps turn to account certain considerations set forth therein.

In this connection, it was felt possible to draw from the material collected — not only from conventions concluded between States, but also from treaties between administrations, which are usually derived from the former — certain conclusions, which are submitted for purposes of information.

In the light of these conclusions, certain general principles have first been laid down, the adoption of which is recommended in the event of the construction of new railway lines crossing a frontier; it is true that this case is somewhat hypothetical for the moment, at all events in Europe, in view of the general situation, but it is nevertheless of some importance. There seems no need to labour this point; it would appear much more important to draw conclusions from the examination of conventions dealing with existing junctions, so that they can be turned to account when recommendations are drawn up relating to cases which are not yet settled. Lastly, it is undoubtedly advisable to deal with certain special aspects of the situation which are of particular interest.

CHAPTER I.

New Constructions.

In the case of new constructions, it is desirable, so far as the circumstances of the case permit, to adopt the principle of a single common station; this principle is in accordance with certain existing Conventions, it affords every facility to the public and enables the railways to be operated as simply and economically as possible.

In such cases, the junction line from the frontier to the common station should preferably be operated by the foreign railway, on the understanding that this will not prevent the construction by the country territorially concerned of the portion of line from the frontier to the common station; the operation of this portion of the line should be transferred, subject to the payment of an equitable royalty to be calculated in principle, according to the cost of construction of the line.

CHAPTER II.

Regulations applicable to Existing Connections.

Stations.

In the present report and the study appended thereto :

By “exchange station” is meant a junction station at which the traffic is handed over; the exchange operations can be divided between two stations or carried out at one station, each administration performing its own operations with its own staff;

By “common station” is meant a junction station managed by a single administration, wholly or partly for the joint account of them both. In special cases, such as the junction of two lines of different gauges, the transfer operations may be divided between two common stations.

At the exchange station, no operations are carried out by one administration for account of the other; the question of a division of expenditure therefore does not arise.

The common station comprises a number of services carried out by one of the two administrations for the account of the other, thus involving a division of expenditure; for very different reasons, however, a comparatively small number of services are always, even at a common station, carried out by each administration separately (such is usually the case with the traction service).

As regards the question whether the exchange should take place at one station or at two, this depends on the actual situation.

In this connection, various considerations, chiefly of a technical nature, which need to be examined separately, have to be taken into account.

From a financial and economic standpoint, it would be unreasonable to incur the cost, which is always fairly heavy, of establishing a common station or even a single exchange station at an unimportant junction. In such cases it would probably be considered preferable to keep the stations on either side of the frontier, the question of the exchange of services then being settled reciprocally at these two stations. Details of these possibilities will be found in the attached study. In so far as financial considerations are concerned, account has been taken both of the cost of initial establishment and of the economic importance of the line — that is to say, the volume of traffic.

Moreover, in some cases, account is taken of considerations entirely foreign to railways in cases where some other solution might be advisable for technical or economic reasons. For instance, it has often been deemed expedient for political reasons — which undoubtedly exist in certain individual cases and have influenced the settlement of the question — to adopt a less far-reaching solution, and to maintain the two-station system in preference to the common or even the single-station system.

Frontier Lines.

There are two possible ways of operating these lines. They can be operated by the administration of the territory concerned, certain services being performed for its account by the other administration — *i.e.*, the foreign administration; or, on the other hand, if the foreign administration operates the line, certain services, such as the permanent-way service, may be performed by the territorial administration.

Should the line be operated by the foreign administration, the latter may be empowered to act by some kind of transfer deed granted by the territorial administration to which the line belongs, or by means of a concession.

CHAPTER III.

Situation as regards Special Aspects of the Problem.

Other State Services.

The following considerations apply chiefly to the Customs, police, health and veterinary services, posts, telegraphs and telephones.

The question of Customs and police operations is settled automatically when the respective services of the two States are situated in their own territory. The problem assumes a different aspect when those services are concentrated in a station situated on the territory of one of the two States, to which can be assimilated cases in which the services are performed while the trains are travelling through foreign territory. In these latter cases, the territorial administration must afford facilities to the foreign administration to enable it to carry out whatever formalities it may consider advisable in its own interest for purposes of supervision. It is therefore expedient, in certain circumstances, to provide certain premises at junction stations for the exclusive use of foreign officials, and to afford the latter all the guarantees and facilities required to enable them to perform their duties satisfactorily in the interest both of the traffic and of the country concerned. The junction line itself must also be considered. Notwithstanding the sovereignty of the country which owns the station and which provides accommodation for the Customs and police officials of the neighbouring country, it must be remembered that not only the Customs and police services of the territorial country but also those of the foreign country relate, to the extent desirable and necessary for the object in view, to the junction line itself, and that the conditions must naturally be determined by special arrangement.

It is hardly necessary to emphasise the fact — which is very natural — that those services are never carried out by proxy, and that, for reasons which are comprehensible enough, each State reserves the right to perform them itself.

As regards posts, telegraphs and telephones, there are no special conclusions to be drawn from the information collected; some very general remarks are included in the attached study.

As regards recommendations, it may be said that, whatever the details of the regulations, it is in every case desirable that the services in question, which naturally affect communications, should be organised on practical lines and in such a way as to enable traffic to cross the frontier as expeditiously as possible, without causing any considerable interference with communications.

While the legitimate interests of States must be safeguarded, the local concentration of the services performed by each State is advisable.

Lastly, the territorial State should afford every facility and, where necessary, lend its assistance to the foreign officials in question to enable them to carry out their duties.

As regards the Customs services, the foregoing principles were embodied in the International Convention of November 3rd, 1933, for the Simplification of Customs Formalities.

Position of Officials performing their Duties in the Territory of a Foreign State.

While facilities should be granted to foreign officials, the extent of those facilities differs according to whether the officials reside in the foreign country or enter foreign territory temporarily.

In the case of staff performing their duties in the territory of a foreign State a distinction should be made between : (1) their status as foreign citizens ; (2) their status as officials.

As regards their status as foreign citizens, the staff usually have the same rights and obligations as the nationals of the foreign country ; this also applies to members of their family and their servants. All the persons concerned retain their nationality ; they are exempt from military service in the foreign country and in general from other civil, administrative, etc., obligations to which the officials of the territorial country are liable. Obviously, the foreign State in which the staff in question reside cannot ignore them completely ; they are usually called upon to pay taxes, subject, however, to the application of the rules for the prevention of double taxation. These officials are also entitled to the assistance and protection of the authorities of the State in which they reside to the same extent as the nationals of that State.

The privileges enjoyed by these officials include, in the interest of the officials themselves as well as of the service, special treatment as regards passports, exemption from Customs duties on certain consignments sent to them, etc.

As regards the official status of the personnel in question, the Conventions provide that they shall be granted such facilities as will enable them to carry out all their duties and obligations satisfactorily. No greater difficulties must be placed in the way of the discharge of their duties than they would encounter in their own country. Officials performing their service in foreign territory remain under their own administration, and hence under the authority of their own official superiors. However, in the interest of the two countries concerned and with a view to the satisfactory working of the service it is necessary that in certain specified matters these officials should also be placed under the competent local higher authority, either direct or through a higher official of their own country delegated to the foreign territory, whose duty it is to give the necessary orders to the minor staff under him.

The special treatment outlined above cannot, of course, be carried so far as to make it impossible for proceedings to be taken by the foreign country in which he resides against an official who has committed an offence under common law. Explicit provisions on this matter are usually embodied in the Conventions, which also provide that the disciplinary powers of the administration to which the official belongs are maintained. In this latter case, if a breach

of the regulations involves consequences which are punishable under criminal law, it is sometimes provided that the criminal law of the country of which the official is a national shall be applied, and that the matter shall be dealt with by the courts of that country.

Although it is necessary to grant all the above-mentioned facilities to officials residing in the territory of a foreign State, it is usual, from the point of view of the sovereignty of that State, to provide that officials whose conduct is detrimental to the legitimate general interests of the foreign State may not take advantage of those facilities. For the same reason, any person who has been convicted of an offence may be forbidden to serve abroad. Lastly, the foreign State has the right to refuse to allow certain officials to enter its territory or to ask for them to be recalled. Similarly, it may be stipulated in inter-State agreements that the personnel serving abroad must fulfil certain conditions.

As regards the performance of their duties in the foreign country the public authorities usually lend their assistance to foreign officials and this principle is embodied in many Conventions.

It is essential that the reciprocal rights and obligations in respect of the staff discharging its duties abroad should be settled in the agreements as fully and as liberally as possible, and in such a way as to ensure the satisfactory working of the service so that the hindrance to traffic in general may be reduced to a minimum. In any case, account should be taken of the legitimate interests resulting from the sovereignty of the foreign State.

Operation.

(a) *Junction Stations.* — The present position is explained in Chapter H of the attached study, which gives a detailed description of the various forms of junction stations and the legal and administrative systems in force.

Apart from the individual rights and obligations of the staff referred to above, it is desirable that uniform regulations should be applied at the common station, that the regulations of the only responsible administration should be enforced, that the service should be run in accordance with those regulations and that if exceptions are to be allowed, they should be provided for by contractual stipulations and should in no way jeopardise the organic unity of the operation.

(b) *Junction Lines.* — Whatever system is adopted, the general responsibility for the services connected with the line should be borne by the operating administration.

By operating administration is meant the administration which is technically and financially responsible for the service, at its own risk, and which is entitled to the receipts, event if, for some reason

or other, it entrusts a part or even the whole of the services to a third party.

Financial Regulations between Administrations.

Inter-State agreements should contain provisions specifying by whom and in what proportions the cost of establishing the junction is to be borne. Similarly the manner in which the interest and amortisation is to be divided should also be determined where necessary. In some cases, provisions are also included relating to the division of the operating costs either of the common stations or of the junction lines. But all these provisions are, of course, of a more or less general nature and it is also necessary for the administrations concerned to agree upon all the details relating to these questions. It is desirable, however, that inter-State agreements should be such as to enable the railways concerned readily to agree upon the details, so that the proposed system may not give rise to any difficulty.

Tariffs.

As regards tariffs, difficulties may arise in connection with either of the two systems applicable in the matter — *i.e.*, the system of linking up tariffs at the frontier station, or the system of linking them up at the actual frontier. In the former case, the difficulty is due to the fact that, in accordance with the principles of State sovereignty, the tariffs of the foreign State should, in the absence of an agreement to the contrary, be entirely subject to the approval of the competent authorities of the territorial State. Under the other system, the difficulty arises from the fact that the linking-up of tariffs takes place at a point where the trains do not usually stop and where there is no change in the internal regulations.

Interests of the Public.

It is to the general interest that, in contracts relating either to the establishment and operation of common stations or to the operation of junction lines, or even to the determination of exchange stations, the legal position should be such as to safeguard the interests of the public when the latter is obliged to bring an action against the railway administration. Consequently, there should be no lack of clearness and no omission as regards the passive legitimacy of a railway. It was found that, at all events in theory, certain of the systems examined were not altogether satisfactory from this point of view. This question deserves to be taken into consideration in the future negotiation of contracts of this kind.

From the standpoint of the users, it may be suggested that the system by which one of the railway administrations continues to

operate the line as far as the common station is in the best interests of the public.

* * *

As regards the other questions dealt with in the attached study, we have refrained from drawing any conclusions and would simply urge that all these questions should be settled in a manner entirely satisfactory both to the administrations and to the users, with the proviso that these questions should preferably, and in some cases must necessarily, be settled by an agreement. However, the agreements usually contain such provisions when they are needed.

* * *

In view of the diversity of the fundamental conditions governing individual cases, it was considered preferable not to recommend any form of standard convention, but simply to submit a general framework which might serve as a basis for the preparation of conventions, and to set forth the gist of the matter and the practice followed at present.

Thus, it is advisable that inter-State conventions should regulate the following points in particular, the conditions of application being embodied, where necessary, in agreements between administrations, drawn up in accordance with the provisions laid down in the conventions :

- Determination of the junction ;
- Determination of the junction stations ;
- Junction system ; exchange stations or joint stations ;
- Ownership ; frontier section, junction stations, equipment ; allocation of expenditure on capital outlay and supplementary work to be carried out later ;
- Higher superintendance and system of operating the frontier section and junction stations ;
- Time-tables ;
- Regulation of the tariffs applicable ;
- Allocation of receipts and basis on which operating costs are to be divided ;
- Placing of premises and ground at the disposal of the services of the neighbour State ;
- Provisions regarding the conclusion of detailed agreements between the railway administrations concerned, in conjunction, if necessary, with other administrations ;
- Customs and other facilities to be granted in favour of services in the neighbour State ;
- Fiscal provisions ;

- Administrative status of officials employed in the frontier-line service and at junction stations in the foreign country; legal status of such officials and their families;
- Provisions concerning the Customs, railway police, health and veterinary, postal and telegraph, passport, etc., services on the frontier section and at the junction stations (international stations);
- Provisions concerning the languages to be used in the service and in the public interest on the frontier line and at the junction stations;
- Provisions arising out of the special interests of the States concerned;
- Settlement of disputes between contracting parties;
- Formal provisions such as entry into force, denunciation, etc.

It should be noted that declaratory provisions have been omitted from this list, which merely mentions the constitutive provisions deemed to be essential.

STUDY BY THE SECRETARIAT

PART I.¹

1. The problem of administrative liaison between the various railway systems situated in neighbouring countries whose lines join at the frontier, where it is not usually possible to establish a station, has been solved in a number of ways. Nevertheless, whatever the particular manner in which the liaison is made and whatever the system applied ;

Whether the two systems prolong their respective lines and the operation thereof beyond their last station and as far as the frontier, one of the two administrations, or, more rarely, both, providing traction over the section of the line situated in the neighbouring territory ;

Or whether one railway operates the traffic beyond the frontier into the neighbouring country as far as the nearest station, or even to a central point further within the country, with the possible consequence that the services for stations between the frontier and such central point are or can be provided by the trains of this railway ;

Or whether, finally, the whole line is operated or administered by such railway, or such railway operates the whole system, apart from providing a service for intermediate stations, for which the railways of the country in question are responsible ;

there must in every case be some demarcation between the sphere of activity and jurisdiction of the neighbouring States and those of the railway administrations, the juridical basis of which is normally to be found in international conventions.

2. There are no general plurilateral or bilateral Conventions on the subject, except in a few special cases, such as the Rome Convention of 1923, regulating the situation of the former Southern Railway Company, and the Convention between France and Germany concerning the organisation of frontier stations, dated April 13th, 1925. Other cases in which railway lines cross the frontier are settled by special treaties. The number of these agreements is therefore large.

¹ The texts of the Conventions, Treaties, etc., to which the present study refers are reproduced in Part II (see page 59 *et seq.*).

3. True, the Second General Conference on Communications and Transit had laid before it by the Advisory and Technical Committee a draft Statute on the international regime of railways, under which States were to undertake "to examine together, in a friendly spirit, their schemes" for establishing common frontier stations "and to endeavour to secure this object" (Article 2).

The Conference, however, did not think it desirable to go too far in this direction, and adopted the following text :

"Article 2 of the Statute on the International Regime of Railways. — In view of the general importance to users of railways, and, in particular, to passengers, of performance of the various exit and entry formalities at the same place, those States which do not feel themselves prevented from doing so by considerations of another nature (other than the public interest) shall endeavour to secure this object either by establishing common frontier stations, or at least common stations for traffic in each direction, or by any other suitable means.

"The State on whose territory the common frontier station is situated shall afford to the other State every facility for establishing and working the offices necessary for the services indispensable to international traffic."

(Cf. also International Convention of November 3rd, 1923, for the Simplification of Customs Formalities, Article 14 and Annex.)

4. The multiplicity of treaties has given rise to an unsatisfactory juridical situation—namely, that there is a multiplicity of laws to be applied. For each question that arises, the special law governing the particular frontier line has first to be consulted. Failing such laws or special provisions, resort must be had to the general rules of public international administrative law in particular, and, to a certain extent, to the general rules of private international law.

What are these general rules? This question cannot be answered without reference to the norms of the *jus gentium* and, in so far as common rules emanate from the general body of individual treaties, to those rules as well.

The object of the present study is to examine existing international legislation and to discover such norms and rules. For this purpose it would not seem necessary to carry out a systematic analysis of all the relevant treaties; it will suffice to study more closely certain characteristic Conventions now in force and certain others which, though no longer characteristic, may be of particular interest from a documentary point of view as regards the development of international law on the subject.

A. THE RAILWAY, VIEWED AS A TRANSPORT UNDERTAKING,
AND ITS EMPLOYEES.

5. According to the ordinary law in force in all States, industrial undertakings are generally subject, as to the whole or at least part of their activities, to State administrative regulations. As transport undertakings, neither private nor State railways are exempt from this rule. Separate consideration will be given to the legal situation of each of these two categories of railways in respect of a foreign country over whose territory they continue to operate after crossing the frontier.

I. *Railways under Private Ownership.*

6. In the early days of railways, States sometimes, with a view to precluding all difficulties, insisted that separate companies should be formed for each territory (cf. Treaty concluded in 1841 between Bavaria, Altenburg and Hesse). It soon became apparent, however, that this arrangement did not fulfil its purpose, since independent companies still found themselves obliged to penetrate into neighbouring territory in order to link up with the system of the other country, and that the problem of international connections therefore remained quite unsolved. The situation produced by the separation of lines as a result of changes of sovereignty, is a question which will be dealt with later.

7. According to the rules of international law, the State in whose territory the actual business headquarters of the railway company is situated is the State which, in principle, is entitled to legislate concerning the constitution, statutes, extension and financial management of the company, and in general to supervise the company's affairs. There are, however, numerous exceptions to this rule in favour of a foreign State in whose territory the company operates in part; the legal basis for such exceptions is usually to be found in either an international treaty, or a national law of the State concerned or a concession granted by that State.

8. Treaties, national laws and concessions often allow a foreign State to exercise some influence over the juridical form of the company and its financial management. Sometimes, indeed, the nationality of the members of its board of directors or managing body comes into question. Sometimes, special bodies are set up to operate the railway in foreign territory. For instance, the treaties concluded by France with her neighbours quite often stipulate that France shall have a representative on the undertaking for all matters connected with that section of the foreign railway which is situated in French territory.

Under treaties concluded between the P.L.M. Company and the Canton of Geneva, the company had to form a Genevese committee — a sort of local managing board — which, though in theory merely consultative, has in actual fact managed the affairs of the company at Geneva.

(See, for example, Treaty of Operation of March 6th-7th, 1885, between the State of Geneva and the P.L.M. Company (Article 13); see also, from the historical point of view, Treaty of 1895 between Switzerland and Italy (Article 17).)

9. In the matter of company statutes, the Swiss Law of December 23rd, 1872, lays down, for instance, that, in order to obtain the requisite concession from the Confederation, every railway company must submit its statutes to the Confederation for approval and must elect a legal domicile in each of the cantons it serves (Articles 7 and 8).

10. The Swiss Federal Law of March 27th, 1896, on Railway Accounting lays down as follows : “ The accounts of all railways situate in Switzerland shall be subject to the provisions of the present law. This stipulation shall also, unless otherwise expressly provided by international treaty, apply to railways situate in Switzerland which belong to or are operated by foreign undertakings.

“ Furthermore, unless otherwise provided in the present Law, the rules of the Federal Code of Obligations shall be applicable to limited liability companies.

“ The provisions of Articles 11-14 of the present Law (*i.e.*, the provisions concerning funds for renewals) shall not be applicable to lines belonging to cantons or to foreign undertakings. ” (Article 1).

II. *Railways under State Ownership.*

11. When the State itself operates a railway, it is sometimes difficult to determine whether, in a given case within its own territory, the State acts simply as an operating body or whether it is a supervisory authority. No such doubt arises when a State-owned railway penetrates into foreign territory.

12. There exists no treaty or convention which could justify the conclusion that the operating State possesses any right of sovereignty over the other State. If, in certain agreements, the offices of the neighbouring railway have been accorded the right to display national arms and emblems, this is simply due to the fact that, as a general rule, State-owned as well as certain privately-owned railways are entitled to display these insignia within the national territory. Moreover, in a recently concluded treaty, France and

Germany have reciprocally foregone the right to display arms or emblems.

(See Convention of March 29th, 1923 (Südbahn) (Article 36); Arrangement of December 31st, 1850, between Austria and Saxony (Article 5); Convention of April 13th, 1925, between France and Germany (Article 23); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 2).)

13. State railways are therefore, in principle, subject in the territory of another State to the jurisdiction, administrative authority and general supervision of the latter. It is expressly stated in an agreement concluded between Bolivia and the Argentine Republic in 1902 (Article 2) that the Argentine Republic is authorised to manage and operate a railway in Bolivian territory under conditions analogous to those governing privately-owned railways. Again it is laid down in a Treaty of 1852 between Switzerland and the State of Baden (Article 40), and in a Convention dated 1869 between the Baden Railways and the Swiss Railways, that the provisions of Swiss law and the provisions concerning concessions shall remain in force.

14. A pure and simple application of the principle described in the previous paragraph makes State-owned railways subject to the provisions governing privately-owned railway systems. In view, however, of the manner in which State railways are organised, many provisions — such as those concerning internal organisation, financial management, etc. — cannot in actual practice be applied to them.

Further, both foreign State railways and foreign privately-owned railways may be obliged to appoint an agent to represent them, either in their relations with the public or with the railway administration of the country in which they operate.

(See, for example, Agreement of August 1st, 1934, between the P.L.M. Railway Company and the Italian State Railways (Article 9).)

III. *Agents of Railway Undertakings.*

15. The powers of railways, which must in principle be governed by the law of the country in whose territory the actual business headquarters of the undertaking is situated, include the regulation of relations between the railway of the one part and its officials and employees either stationed or going abroad of the other part, with the exception of locally-recruited staff. For instance, the railway has, *inter alia*, the right to fix the wages, holidays, pensions, etc., of its officials and employees, whether stationed at home or abroad.

These relations are governed, as regards both the agents of privately-owned railways and those of State railways who are not public officials, by civil law, and, in all other cases, by public law.

It is stipulated in Conventions that employees working abroad and the members of their family and domestic staff living in the same household shall retain their nationality; neither domicile nor residence nor birth in the territory of the other State involves acquisition of that State's nationality. Even the concept of origin remains unchanged.

(See, for instance, Convention of April 13th, 1925 (Article 35), between France and Germany.)

It is sometimes specified in Conventions that agents stationed in foreign territory shall be exempt from all military service in the armed forces of that territory, and that they shall not be prevented from fulfilling their military duties in their own State. They are not subject either in time of peace or in time of war to military requirements other than military service, or to military requisitions, except in so far as, and on such principles as, nationals of the State in which the service is established are there subject to them; in all such cases, they are entitled to compensation. Very often these agents are also expressly exempted from rendering any personal service to the foreign State or to other regional or local bodies, and from the obligation to fulfil public duties in courts of law, or at the behest of administrative authorities or autonomous administrations, except that they may act as guardians or curators for their own nationals.

(See, for instance, Convention of July 18th, 1929, between France and Spain (Article 21).)

16. In the matter of direct taxation, Conventions usually provide that foreign agents, members of their families and their domestic staff living in the same household, provided they are of the same nationality as the agent, either are exempted from such taxation or are liable thereto only to the extent allowed by the legal arrangements reached by the contracting parties with a view to the prevention of double taxation.

(See Convention of March 29th, 1923 (Südbahn) (Article 52); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 40); Convention of April 13th, 1925, between France and Germany (Article 37).)

Conventions exempt from all Customs duties and all other charges and from export duties in cases of re-exportation, and exclude from import and export prohibition rules not only articles imported by such agents for service needs, furniture and effects imported on

first installation, including new articles, but also articles belonging to the agents or members of their family or their domestic staff which are sent into the State of origin to be repaired, cleaned, etc., and are thereafter returned from that State. This exemption is granted by means of an ordinary certificate issued by the head of the service, attesting the necessity of importation or exportation.

(See Convention of March 29th, 1923 (Südbahn) (Article 51); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 42); Convention of September 28th, 1932, between Hungary and Roumania (Article 3); Convention of April 13th, 1925, between France and Germany (Article 37).)

Agents and members of their families and domestic staff living in the same household are usually accorded facilities at the frontier as regards exemption on entering or leaving the State of which they are nationals, and as regards sojourn in the place where the agent works. They are, in many cases, exempted from passport and visa formalities and have only to show an identity card issued to them by their chief.

(See Convention of March 29th, 1923 (Südbahn) (Article 51); Convention of April 13th, 1925, between France and Germany (Articles 24 and 36); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 41); Convention of September 28th, 1932, between Hungary and Roumania (Articles 17 and 32).)

17. There may be special conventional provisions regarding the appointment of staff. For instance, in the Treaty of August 27th, 1870, between Switzerland, Austria-Hungary and Bavaria, it is laid down that the operating management is entitled to appoint its operating staff, subject to the stipulations set out in the deeds of concession (Article 13) (see also paragraph 8 above).

The admission of an official for permanent service on foreign territory also confers the right of sojourn there upon himself and the members of his family and his domestic staff. This is sometimes expressly stated in treaties.

(See, for example, Treaty of 1930 between Austria and Hungary (Article 11).)

Some Conventions limit the number of agents who may be employed on foreign territory.

(See, for example, Convention of September 28th, 1932, between Hungary and Roumania (Article 25).)

Others stipulate previous agreement or at least a right of veto with regard to these agents.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 34 and 37); Convention of September 28th, 1932, between Hungary and Roumania (Article 17, paragraphs 1 and 2).)

Finally, other Conventions exclude certain persons from all employment in the foreign State.

(See, for example, Convention of September 28th, 1932, between Hungary and Roumania (Article 33).)

This stipulation applies particularly to persons who have been sentenced for an offence or for an infringement of the Customs regulations. Frequently, conventions also allow the foreign State to request the State of origin to recall an agent, either without a statement of reasons, or for reasons enumerated limitatively in the Convention, in particular for adopting an attitude contrary to the dictates of neighbourly relations, political agitation with regard to the other State, or infringement of that State's Customs regulations, or because the agent has made unproper use of his position or his sojourn in the territory of the other contracting party in such a way as to affect the latter's security.

(See, for example, Treaty of August 27th, 1870, between Switzerland, Austria-Hungary and Bavaria (Article 14); Convention of March 29th, 1923 (Südbahn) (Articles 38 and 39); Convention of September 28th, 1932, between Hungary and Roumania (Article 31); Convention of April 13th, 1925, between France and Germany (Article 33).)

Moreover, the State concerned also possesses in the above-mentioned cases, by virtue of its sovereignty, the rights mentioned in paragraph 21 below.

18. Although, obviously, agents are bound to fulfil their duties primarily in accordance and conformity with the orders and rules issued by the State whose nationals they are, some Conventions contain express provisions to that effect.

(See, for example, Arrangement of December 31st, 1850, between Austria and Saxony (Article 5); Convention of 1887 between Bulgaria and Serbia (Article 35); Convention of March 29th, 1923 (Südbahn) (Article 45).)

19. The foregoing shows that, both abroad and at home, the staff regulations and kindred provisions of the employing administration are applicable, and that that administration must possess administrative powers over its agents abroad.

In conformity with customary law it is laid down—for instance, in the Arrangement of May 15th, 1922, between Germany and Poland—that, at each frontier station, both parties are entitled to appoint a high official under whose orders the respective agents of each party in the station are placed.

(See, for example, Convention of May 15th, 1922, between Germany and Poland (Articles 422 and 422a).)

Naturally, no provision of this kind can ever be allowed to affect the stationmaster's right to issue service orders within the scope of his duties (see paragraph 30 below).

20. The foregoing further shows that the operating management also exercises on foreign territory its disciplinary rights over its officials and employees.

(See, for example, Treaty of December 10th, 1870, between Switzerland and the State of Baden (Article 8); Convention of March 29th, 1923 (Südbahn) (Article 52) (mentioned in paragraph 16); Convention of April 13th, 1925, between France and Germany (Article 34); Convention of July 18th, 1929, between France and Spain (Article 21); Convention of September 28th, 1932, between Hungary and Roumania (Article 16).)

21. In principle, matters involving criminal law and procedure must be settled in accordance with the rules of international criminal law, so that the whole staff, including public officials of State railways, their families and their domestic staff sojourning on foreign territory are subject in the first instance to the laws in force in the place in which an offence is committed. The competent territorial authority may therefore, if necessary, institute proceedings, or even have the persons concerned arrested.

(See Treaty of August 27th, 1870, between Switzerland, Austria-Hungary and Bavaria (Article 13); Convention of March 29th, 1923 (Südbahn) (Article 52) (mentioned in paragraph 16); Convention of September 28th, 1932, between Hungary and Roumania (Article 38).)

This also applies to the police and Customs regulations of the State of sojourn.

(See Convention of March 29th, 1923 (Südbahn) (Article 52) (mentioned in paragraph 16); Convention of April 13th, 1925, between France and Germany (Article 33); Convention of September 28th, 1932, between Hungary and Roumania (Article 31).)

Some Conventions stipulate that, in the case of criminal proceedings or an arrest, the State of which the person concerned is a national should be informed. Additional provisions are sometimes found to the effect that the State must be informed of an arrest and that, when an arrest is made the requirements of the service will be taken into account. It is often specified that any sentence passed on foreign employees must be notified to the administration of the other State. Sometimes Conventions also stipulate that the file of the case must be communicated.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Article 47); Convention of April 13th, 1925, between France and

Germany (Article 33); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 40); Convention of September 28th, 1932, between Hungary and Roumania (Article 38.)

The giving of evidence by foreign agents in civil cases is often subject to authorisation by the administration of which they are servants, but the Conventions add at the same time that such authorisation will not be withheld except for unavoidable reasons. As regards evidence required in the course of police investigations or in criminal cases, it may also be agreed that the person concerned will be urged to depone, unless the laws of the State of which he is a national authorise him to refuse evidence.

The State to which the railway administration belongs may not, therefore, apply its criminal law to the above-mentioned persons either from the material point of view or from that of form or procedure unless it is granted such right by a special convention.

Of these Conventions, special mention should be made of the Arrangement of May 15th, 1922, between Germany and Poland, which stipulates (Articles 25 *et seq.*) that, as regards the discharge of their duties, officials and employees in service in foreign territory, so long as they remain there, "are subject only to the laws and authorities of the State which has detailed them for such service". This clause regulates penal and civil responsibility, both as regards material law and procedural law, and the exception to the general rule is extended still further by a conventional provision whereby "if they commit a punishable act in the discharge of their duties, such officials or employees shall, on request, be sent back to the State which detailed them for such service".

22. Conventions sometimes contain provisions regarding workers' protection and social insurance, in particular insurance against disease and disablement, and kindred questions. It seems that, in most cases, the rules of the State of which the official is a national are applicable.

(See, for example, Convention of May 30th, 1927, between Czechoslovakia and Poland (Articles 15 and 16); Treaty of June 30th, 1930, between Austria and Hungary (Article 12); see also Treaty of August 1st, 1934, between the P.L.M. Railway Company and the F. S. (Article 24).)

23. Agents must obey the instructions of the foreign authority when it is called upon to entrust duties to them—*e.g.*, railway police (see Chapter D below). In such a case, the instructing authority is acting, not on behalf of its railway administration, but on behalf of the foreign State.

24. Conventions usually provide that employees stationed in the other State shall, in the exercise of their duties, be entitled to the necessary protection and assistance of the authorities and officials of that State, who must comply with any request for intervention on the same conditions as for requests from the national services.

(See, for example, Convention of March 29th, 1933 (Südbahn) (Article 51); Convention of April 13th, 1925, between France and Germany (Articles 29 and 30); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 43 and 44); Convention of July 18th, 1929, between France and Spain (Articles 23 and 24); Convention of September 28th, 1932, between Hungary and Roumania (Articles 16, 30 and 34).)

In certain Conventions, it is even expressly agreed that, when public action may be taken conjointly with private action in the case of harm or injury sustained in the discharge of duty, the contracting parties will use such power on behalf of agents of the other State serving in their territory to the same extent as for their own employees.

(See, for example, Convention of April 13th, 1925, between Germany and France (Article 31).)

25. Agents performing their duties in services established in foreign territory are authorised to wear their regulation uniform, including service arms, though some Conventions limit to a certain extent the freedom of movement of such agents outside the place where they perform their duties, or do not allow agents to carry arms unless on duty.

(See, for example, Convention of March 14th/21st, 1891, between Roumania and Austria-Hungary (Article 19); first Arrangement of May 15th, 1922, between Germany and Poland (Article 495); second Arrangement of May 15th, 1922, between Germany and Poland (Article 26); Convention of March 29th, 1923 (Südbahn) (Articles 45 and 53); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 41); Convention of July 18th, 1929, between France and Spain (Article 22); Convention of September 28th, 1932, between Hungary and Roumania (Article 31).)

Even if there is no mention of it in a treaty, the right to wear uniform seems to be granted in practice or exists as a right sanctioned by custom.

26. It is obviously in the interest of the railway administrations themselves to employ in foreign territory only such agents as are fully satisfactory from the point of view of rectitude and discipline. Moreover, service abroad requires certain categories of agents to have an adequate knowledge of the language of the neighbouring

country and to be able to speak that language satisfactorily (see Chapter G below).

27. As regards certificates issued by the competent railway authority to its agents (engine-drivers, rail-motor drivers, firemen, etc.) as the result of a technical examination or other qualification test, it is the rule that such certificates are accepted in the neighbouring country by tacit consent of the supervisory authority of that country or in virtue of a special clause.

(See, for example, Treaty of 1930 between Austria and Hungary (Article 14).)

28. All the foregoing refers to the relations of a railway undertaking with a foreign State in whose territory part of its traffic is operated. It is now necessary to examine the relations between such an undertaking and one which provides railway transport in the foreign State.

These relations are normally based on administrative arrangements, which in their turn are often either subject to Government approval or drawn up in execution of an international convention.

29. Relations between the two railway undertakings must naturally be ensured mainly by their respective agents, in view of the inter-connection between the respective frontier services at exchange stations and common stations, and at intermediate stations where the foreign railway operates beyond the first station of the country. Even when the whole service at an exchange or common station is operated by the local administration, at all events the personnel attached to the traction service and the trains of the foreign railway come into immediate contact with the local personnel. As a rule, however, the common station service is divided into three branches : a common branch managed by the local administration and two special branches managed by the respective railways. Hence there are numerous direct relations between the personnel of the two railways operating in the station.

(See, for example, Convention of 1879 between France and Italy (Article 1); Convention of 1879 between Austria and Italy (Article 11); first Agreement of 1906 between Switzerland and Italy regarding the Simplon Railway (Article 24).)

Lastly, as regards intermediate sections of the line, direct relations exist mainly in cases where the train service on those sections is operated by the personnel of one railway and the station service by that of the other.

(See, for example, second Agreement of 1906 between Switzerland and Italy regarding the Simplon Railway (Article 16).)

30. As the safety and speed of railway operation largely depend on the personnel's observance of the instructions given by the management and as both at junction stations and on the line itself no distinction can be made between the personnel of the foreign railway and that of the home railway—both of whom must alike obey the instructions given—the inter-State Conventions and, in particular, the arrangements between administrations contain detailed provisions on this point.

(See, for example, Convention of 1899 regarding the Simplon Railway (Article 10); first Arrangement of 1906 (Articles 23 and 24); second Arrangement of 1906 (Articles 12 and 16); Treaty of 1934 between France and Italy (Modane) (Article 21); Treaty of October 15th, 1902, between France and Switzerland (Article 14); first Arrangement regarding Upper Silesia, dated May 15th, 1922 (Article 422), whereby the personnel of one of the parties during the operation of the service on the lines and at the stations of the other party are explicitly required to obey instructions given by the competent organs of the latter. See other examples under paragraph 41).

e.g., Often it is expressly stated whose orders (the stationmaster's) and which administration's regulations the personnel is to obey. Furthermore, the administration to which the personnel belongs agrees to take such disciplinary action as it thinks fit in the event of any complaint from the other administration alleging contraventions or fraudulent conduct on the part of the agents of the first-named administration.

(See, for example, Convention of 1914 between the P.L.M. Railway Company and the Swiss Federal Railways (Article 17).)

B. CONSTRUCTION AND OPERATION OF FRONTIER LINE.

31. No railway may be constructed or operated to provide a public service without previous authorisation from the competent authority of the country concerned. The form of such authorisations varies according to the law of the particular country. This principle applies both to railways whose business headquarters are situated in the country itself and to those which are situated in foreign territory and enter the country only to make a connection with the neighbouring railway.

32. Consequently, a foreign entrepreneur, whether a private or a State concern, must in principle submit to the competent authority of the country for approval plans of constructional or additional works and in particular a survey of the route of the line and any other prescribed particulars. To the competent authority of the country whose territory is concerned falls also the supreme supervision of the work and the general inspection and final taking over

the line on completion. Moreover, it is the authority of the country territorially concerned which is competent in matters of expropriation or any other restriction on landed property.

Lastly, it is in principle the legislative provisions and general regulations of that State which must be applied to and by the foreign railway.

(See, for example, Convention of 1934 between France and Italy (Modane) (Article 3); Convention of 1908 between Germany and the Netherlands (Neuenhaus-Coeverden) (Article 5); Convention of March 29th, 1923 (Südbahn) (Article 31).)

33. The Conventions necessary for this purpose often define the scope and terms of the concession itself and also the route of the line, details of junction stations to be constructed, etc.

Further, these conventional provisions may take the place of the granting of a concession or be substituted for it and may even to a considerable extent modify the laws of the country. Thus, these Conventions often provide that certain details such as the establishment of the junction point or of the common route shall be determined by joint commissions, and that these commissions shall be responsible for the superintendence of the work and the technical taking over of the new line. Indeed, in the case of the Simplon, it was laid down, for quite special reasons, that the foreign administration should, on its own responsibility, draw up plans, construct the line and even carry out by itself the superintendence and final taking over of the work.

(See, for example, Treaty of October 15th, 1902, for the construction and operation of a line via the Mont d'Or connecting at Vallorbe with the Swiss railway system (Articles 2, 3 and 27); Convention of 1894 between the Argentine and Bolivia (Article 3); Convention of 1904 between France and Spain (Article 7); Treaty of 1895 between Switzerland and Italy (Article 7) regarding the construction of the Simplon tunnel.)

34. Nevertheless, an agreement prescribing which administration is to be responsible for the construction of the line and the superintendence of the work does not yet solve the problem. There remains the question as to what building regulations are to govern the work; what gradients, radii of curves and clearance gauge are approved. All these technical questions and many others of the same kind are often regulated individually in Conventions.

(See, for example, Treaty of October 15th, 1902, for the construction and operation of a line via the Mont d'Or connecting at Vallorbe with the Swiss railway system (Article 1); Treaty of 1895 between Switzerland and Italy (Articles 5 and 6) regarding the construction of the Simplon tunnel).

35. In the absence of conventional provisions, it appears that in principle the laws and regulations of the State territorially concerned are applicable, but that any departures from this principle which the normal train traffic may reasonably require must be allowed. In specific cases, such departures may even involve the abandonment of the national regulations and the adoption of the foreign system.

36. As regards rolling-stock, the State territorially concerned is again primarily competent, and its provisions regarding the admission, periodical inspection, etc., of wagons and locomotives are applicable in principle. Nevertheless, through the fact that the foreign railway has the right to enter the territory, it would seem that at all events implicit authorisation is given to that railway to use its own stock, even if it does not entirely fulfil the requirements of the territorial State.

(See, for example, a conventional provision on this point in Article 9 of the second Arrangement regarding the Simplon Railway, which stipulates that, for operation between the first Italian station and the international station, wagons and locomotives must conform to the Swiss clearance gauge, but that in standard they must comply with the Italian laws and ordinances.)

Inspections and revision of rolling-stock and particularly locomotives are, as a rule, carried out in the territory in which the railway's business headquarters is situated, and receive at all events the tacit approval of the authorities of the territorial State.

(See, for example, Treaty of 1930 between Austria and Hungary (Article 14).)

This question has lost much of its importance in view of the progress made towards standardisation of rolling-stock on European railways and in view of the agreements of the Union for the Employment of Passenger Coaches and Mail Vans in International Traffic (R.I.C.) and for the Reciprocal Use of Wagons in International Traffic (R.I.V.), which regulate the exchange or use of passenger coaches, wagons and loading appliances.

C. TRAIN SERVICE.

37. In accordance with the principle of the sovereignty of States and their right to grant or withhold concessions, foreign train services must be organised and operated as a general rule in conformity with the national regulations. It is therefore to the local authorities and to such instructions as they may give that the foreign railway is required to submit.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Article 44), and Convention of 1934, between France and Italy (Modane) (Article 1).)

38. Frequently, conventional law takes practical requirements into account by making the foreign regulations applicable in so far as they relate to traffic and the make-up of trains, as well as to the technical superintendence and upkeep of the line, the telegraph and telephone service, types of signals and safety appliances, etc. It is understood that in all cases the supreme supervision is in the hands of the competent territorial authority.

(See, for example, Convention of 1934 between France and Italy (Modane) (Articles 1 and 4); Conventions of 1864 between France and Spain (Article 1) and 1882 (Article 1) and Convention of 1914 between France and Switzerland (Vallorbe) (Articles 3 and 4).)

39. What is said in the above paragraph applies especially to train services between the frontier and the next station to the frontier.

In the case of traffic beyond the next station to the frontier and as far as the junction station, the situation frequently differs. A good example is the Convention of 1906 between Switzerland and Italy with regard to the Simplon Railway (Article 9). Italy, while allowing "the Swiss regulations with regard to traffic and the marshalling, make-up and driving of trains, and their loading and braking to be applicable as far as Domodossola" claims in the same article that such changes "as the competent Italian authority may demand" for the safety of trains and traffic should be effected.

40. The system under which a railway line is administered (whether the railway's own system or a joint system) is closely related to the question whether the staff attached to the service of intermediate stations and to that for the inspection of the permanent way is under the orders of the one administration or the other.

If the staff in question is under the foreign railway, the service of the latter will comply, unless it is expressly stipulated otherwise, with the foreign system.

If, on the other hand, it is under the local administration, that part of the service which is in direct relations with the train services is generally subject to the same regulations as the latter, though the rest of the service will be operated in conformity with the local regulations.

(See, for example, second Arrangement of 1906 with regard to the Simplon (Article 2) in the matter of the permanent-way service and the service in intermediate stations; see also Articles 3 *et seq.* of the same Arrangement.)

41. The situation is quite different at junction stations. At any rate, in places where the two services interlock, a single, unified command is indispensable. The local authority is the authority entrusted with this command, a point which is expressly stipulated in the different Conventions.

(See, for example, Convention of 1934 between France and Italy (Section II and Article 21); Convention of October 15th, 1902, between France and Switzerland (Article 15); Convention of March 29th, 1923 (Südbahn) (Article 44); and Conventions of December 4th, 1863, and August 15th, 1878, between France and Spain (Article 2) (Irun-Hendaye and Cerbère-Port Bou).)

This principle is applied in practice to the regulations governing the station and signalling services.

(See, for example, Arrangement of 1906 between Switzerland and Italy (Simplon) (Article 20); and Treaty of 1934 between France and Italy (Article 13), which enumerates amongst other things the operations to be carried out under the authority of the stationmaster by the agents of the foreign railway.)

The legal time is that of the country in whose territory the frontier station is situated.

(See, for example, Convention of April 13th, 1925, between France and Germany (Article 8).)

42. At the same time, the service at a common station includes— in addition to duties relating to the two railways (see for example first Arrangement of 1906 between Switzerland and Italy (Articles 8 *et seq.*)—duties in which only one of the two administrations is concerned, such as the taking over of wagons or passenger coaches, inspection, lubrication, cleaning of the administration's own trains, upkeep of its own rolling-stock, service of its special depots, etc.

(See, for example, Treaty of 1934 between France and Italy (Modane) (Article 18), and Convention of 1902 between France and Switzerland (Article 10).)

It is generally agreed that, in the performance of duties of this kind, the foreign railway will conform to its own regulations and instructions.

(See, for example, first Arrangement of 1906 between Switzerland and Italy (Articles 8 and 19), with regard to the make-up of trains and preparatory work in trains.)

Lastly, the loading of baggage and goods, the making-up of trains and, in general, all elements of the service towards the frontier line may be effected either by the agents of the foreign railway or

by the agents of the national railway, who are attached to the common service. In this latter case, the Conventions sometimes contain a special provision to the effect that the agents of the common service are to conform in the execution of these services to the regulations of the foreign railway. Where these services are performed by agents of the foreign railway, it is obvious that no such provision is necessary.

D. RAILWAY POLICE.

43. The railway police includes (a) the higher superintendence branch, whose duty it is mainly to protect the public against dangers arising out of the railway service, and (b) the performance of certain duties for the purpose of protecting the operating service against infringements of the regulations or any other acts of the same kind. The railway police in these two senses is an emanation of the sovereignty of the State territorially concerned; but, whereas in the first case the railway police duties can obviously be performed only by the authorities of the country territorially concerned, in the second case they may be delegated to foreign agents acting within the limits of their duties in connection with the railway.

44. It is frequently therefore agreed that, in frontier sections and stations operated by a foreign railway, the railway police service will be entrusted to agents of the foreign railway on the understanding that the laws in force in the country territorially concerned are to be applied.

(See, for example, Convention of 1908 between France and Switzerland (Article 13); Convention of December 2nd, 1899, between Switzerland and Italy (Article 9); Convention of December 2nd, 1901, between Switzerland and Alsace-Lorraine (Article 4).)

45. Railway police agents perform a public function. Consequently, any resistance to the orders of such agents, even where they are of foreign nationality, can only be regarded as resistance to the public powers of the State territorially concerned. It also follows that, within the limits of their public functions, such agents are under the supervision and even under the orders of the competent authorities of the country territorially concerned.

Accordingly, the treaties also provide for the rendering of assistance to railway police officials of foreign nationality.

(See, for example, Convention of 1879 between Austria and Italy (Article 10); Treaty of June 30th, 1930, between Austria and Hungary (Article 14).)

E. TIME-TABLES.

46. Whether the time-table is framed primarily to meet the internal traffic requirements of the country concerned or with a view to main international connections, there seems no question that, in so far as the interior of the country in question is concerned, it is for the competent authorities of the latter and for them alone to approve the time-table.

In principle, this right remains with the authorities territorially concerned, even where a foreign railway crosses the frontier and operates a frontier section of line in order to make contact with the railway system of the neighbour.

In accordance with this principle, it is frequently agreed in the treaties that the competent territorial authority will give its consent in each case.

(See, for example, Convention of 1899 between Italy and Switzerland (Article 8); Convention of 1907 between France and Belgium (Article 7).)

47. With a view to safeguarding mutual interests, the Conventions concluded frequently stipulate that the time-table will be framed in common agreement between the competent territorial authority and the railway administration or administrations concerned, or that it will make provision for suitable connections with the railways of the territorial system.

(See, for example, Convention of June 26th, 1876, between France and Switzerland (Article 9); Convention of 1905 between Germany and Russia (Article 9); Treaty of October 15th, 1902, between France and Switzerland (Article 7); Convention of July 17th and August 11th, 1914, between the Swiss Federal Railways and the P.L.M. Company (Article 2); first Convention with regard to Upper Silesia (Articles 397, 416 and 479) in which a special authority is set up to settle disagreements on points of principle.)

48. Other Conventions go even further and stipulate that the foreign administration operating the line need only communicate the draft time-table to the territorial authorities so as to enable the latter to submit any observations they may have to make—which is tantamount to leaving the time-table to be approved by the foreign State.

(See, for example, Convention of 1852 between Baden and Switzerland (Article 29).)

F. TARIFFS.

49. As regards the application of tariffs in the territory of the State in which the railway administration responsible for operation

or simply for traction does not possess its business headquarters, a distinction must be made between two very different cases :

- (a) The point of tariff delimitation coincides with the point at which the railway crosses the frontier ;
- (b) This point is placed at the junction station.

The question of the tariff boundary is of such importance for the system of agreements regulating traffic across frontiers that special attention is paid to it in inter-State Conventions.

50. Where the point of tariff delimitation coincides with the frontier, the question of which party is to frame and approve the tariffs gives rise to no difficulty, as this system cannot prejudice the rights and functions of the Government and railway administration of the territory passed through.

51. Where the tariff boundary is placed at the junction station, account has had to be taken of the special situation resulting from the fact that a foreign railway administration has encroached upon the national sphere of authority in the matter of tariffs. The manner in which these questions have been settled in practice is explained below.

52. The most thoroughgoing method of obviating any difficulty is of course to leave the settlement of tariffs to the competent authorities of the country in which the business headquarters of the railway is situated. This principle is applied in a large number of Conventions.

(See, for example, Convention of 1902 between Germany and Austria (Article 13); Convention of 1909 between France and Switzerland (Articles 11 and 16) as regards traffic between these two countries, but not Swiss internal traffic.)

It should be noted that certain treaties mention, not only the tariff, but also general transport conditions, and provide that between the junction stations on both sides of the frontier the tariff system and tariffs applicable shall be those of the country from which the train starts.

(See Treaty of 1904 between Germany and Russia (Article 9); see also the Treaty of December 2nd, 1901, between Switzerland and Alsace-Lorraine (Article 5), under which the railway administration of the last-named autonomously applied its regulations and tariffs to the section of line rented to it by Switzerland, as regards traffic with Germany and beyond; Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 13).)

Another way of avoiding differences in tariffs which might affect the uniform operation of the railway and its legal position *vis-à-vis* the public, is for the contracting parties to lay down certain tariff provisions by mutual agreement.

(See, for example, Convention of April 13th, 1925, between France and Germany (Article 11).)

53. The foregoing paragraph deals with the position of foreign railways providing transport from one country to another. As regards internal traffic, the right to fix tariffs is granted in some conventions to the country territorially concerned.

(See, for example, Convention of 1909 between France and Switzerland (Articles 11 and 16) (mentioned under paragraph 52), according to which “the provisions of Swiss legislation concerning the Federal Railway tariffs shall be applied on the line from Geneva (Cornavin) to La Plaine (frontier), and on the sections from Meyrin (frontier) to Geneva (Cornavin) and from Geneva (Cornavin) to Annemasse (frontier)”, whereas the tariffs applicable to Swiss-French traffic using the Geneva-La Plaine section are those of the P.L.M. Company fixed by the competent authority in France.)

54. Another system is as follows. Although in principle the approval of tariffs is reserved to the State territorially concerned, the latter waives this right in practice in certain conventions, provided, however, that no other tariffs than those in force on the neighbouring system are applied on the junction line. Nevertheless, the State territorially concerned often expressly reserves the right to approve tariff provisions affecting the frontier zone alone.

55. As regards accessory expenses and local charges, such as washing and disinfection charges, the charge for presentation at the Customs, weighing charges, etc., it is for the railway administrations to insert the necessary provisions by mutual agreement in the tariffs.

(See, for example, the Convention of 1934 between France and Italy (Modane) (Article 31), in which it was agreed to apply the French tariffs.)

G. LANGUAGE QUESTION.

56. In many cases, the question of the languages to be used in the relations between railway administrations at international stations or on junction sections, does not form the subject of an explicit regulation, and the matter is often settled without more ado and according to their actual needs by the administrations speaking different languages.

However, in cases where an express regulation for this question has been found necessary or desirable, it may be noted in general that its scope differs according to the conditions at hand—*i.e.*, according to whether the foreign railway administration running trains on the territory of the other State is also the operating administration, or whether it is merely responsible for the traction of the trains.

In the first case, the foreign administration discharges, in principle, through its agents, all the service duties connected with operation both on the junction line and at the frontier station. The question of language is thus reduced to the mutual relations between the two administrations at the frontier station. When, in virtue of an agreement, the local administration performs, through its agents, certain service duties on behalf of the foreign administration (such as the despatch of trains), the language to be used in such cases must also be settled.

In the second case, on the other hand, it is desirable that the question of the language to be used in the relations between the two administrations should be settled not only as regards the transfer service at the actual stations, but also as regards relations between the train services, the traffic services on the junction line on either side of the frontier, and, in the case of these last-named services, between themselves.

57. It should also be noted that certain international Conventions do not merely settle the question of the language to be used in the reciprocal relations between the two administrations at the station and on the junction section of the line, but also the general question of correspondence (including telegrams) from one administration to the other.

58. From the point of view of formalities, it should also be borne in mind that as regards certain branches of the frontier junction services, bilateral Conventions between neighbour States do not constitute the only basis of the legal regulation of the language question; this matter is also governed by multilateral international Conventions or multilateral agreements between railway administrations. For instance, the provisions of the R.I.V. and R.I.C. Conventions, the provisions of the regulations for the exchange of service telegrams between the railway administrations of the U.I.C. in regard to international traffic, the provisions of the transport agreements between railway administrations concluded on the basis of the Berne International Conventions, etc., all have to be taken into account. These multilateral Conventions settle, *inter alia*, the question of the language in which the various reports regarding the rolling-stock service or the transport service are to be made out, the language in which the necessary forms are to be filled up,

the language in which railway service telegrams are to be despatched and transmitted, etc. As compared with separate bilateral Conventions, the provisions of these multilateral Conventions are of a subsidiary character, as they are only applicable in so far as a Convention between two States concerning railway junction relations does not contain any provision to the contrary.

59. As a rule, it is necessary to decide which language is to be used : the language of the local administration or of the neighbour administration. In view of the fact that the personnel of trains of the neighbour administration arriving at the frontier station changes more frequently than the station personnel of the local administration, and that it is therefore reasonable to assume that this station personnel is able to acquire more quickly the necessary knowledge of the service terms used by the neighbour administration, certain international Conventions have adopted the principle that the transfer service for the neighbour administration shall be carried out at the frontier station in the official language (and according to the official regulations) of such neighbour administration.

(See, for example, Convention of March 8th, 1923, between Czechoslovakia and Hungary (Article 8, paragraph 1) (mentioned under paragraph 63); Convention of June 30th, 1930, between Austria and Hungary (Article 8).)

60. On the other hand, certain Conventions are based on an entirely different principle—namely, that, as regards service relations, both verbal and in writing, at the frontier station and on the junction line, the official language of the State territorially concerned shall be used.

(See, for example, Convention of March 27th, 1926, between Germany and Poland (Article 8, paragraph 1) (mentioned under paragraph 64); Agreement of June 1st, 1926, concerning traffic crossing the Germano-Netherlands frontier (Article 12); Convention of October 30th, 1929, between Poland and Roumania (Article 8, paragraph 1) (mentioned under paragraph 64); Convention of September 28th, 1932, between Hungary and Roumania (Article 5, paragraph 4).)

In some of these Conventions, the rule mentioned in the previous paragraph applies solely to the signalling of trains between posts situated on either side of the frontier—*i.e.*, these services are effected in the language of the administration responsible for working the trains across the frontier.

61. The settlement of the question of the language to be used by the officials of the two administrations in their mutual relations

at the frontier station and on the junction line sometimes depends on the fact that, in the case in question, the officials of the two administrations have no great difficulty in understanding each other when using the language of their administration.

(See, for example, Convention of May 30th, 1927, between Czechoslovakia and Poland (Article 17, paragraph 1) (mentioned under paragraph 65).)

Under this system, it is however thought necessary in the interests of safety that the despatch of trains from the frontier station should be effected in the official language of the administration responsible for working the trains across the frontier.

(See, for example, Convention of May 30th, 1927, between Czechoslovakia and Poland (Article 17, paragraph 3) (mentioned under paragraph 65).)

62. The principle, a natural one, that the officials of the neighbour railway administration responsible for the service in the territory of the other State should be authorised to use their official language in their service relations is expressly laid down in certain international Conventions.

(See, for example, Convention of October 30th, 1929, between Poland and Roumania (Article 8, paragraph 2) (mentioned under paragraph 64); Convention of March 27th, 1926, between Germany and Poland (Article 8, paragraph 2) (mentioned under paragraph 64).)

63. The question of the language used in their mutual relations by the offices of the two railway administrations, as regards matters concerning frontier stations and any other matter, is not regulated in accordance with a uniform principle :

(a) As a rule, the administrations use their official language in their mutual relations ; this is sometimes expressly provided for in the Conventions ;

(See, for example, Convention of May 30th, 1927, between Poland and Czechoslovakia (Article 17, paragraph 2) (mentioned under paragraph 65); Convention of March 27th, 1926, between Germany and Poland (Article 8, paragraph 3) (mentioned under paragraph 64).)

(b) There are, however, exceptions to this rule : in some cases, the correspondence addressed by a frontier station to the offices of the neighbour administration is written in the official language of the latter ;

(See, for example, Convention of March 8th, 1923, between Czechoslovakia and Hungary (Article 8); Convention of June 30th, 1930, between Austria and Hungary (Article 8) (mentioned under paragraph 59).)

Again the railway service correspondence and telegrams made out in the official language of the despatching State are sent through the frontier station, which is required to translate them into the official language of the recipient State ;

(See, for example, Convention of March 8th, 1923, between Czechoslovakia and Hungary (Articles 8 (see above) and 9) ; Convention of June 30th, 1930, between Austria and Hungary (Article 8) (mentioned under paragraph 59).)

(c) Lastly, under some Conventions, the railway administrations of the two countries are required to use a third language in their mutual relations —

(See, for example, Convention of October 30th, 1929, between Poland and Roumania (Article 8, paragraph 3) (mentioned under paragraph 64) ; Convention of February 12th, 1929, between Poland and Latvia (Article 8).)

— if only as an auxiliary language.

(See, for example, Convention of September 28th, 1932, between Roumania and Hungary (Article 5, paragraph 7).)

64. With a view to facilitating current correspondence relating to traffic and particularly to the transfer service, the Conventions often authorise the railway administrations concerned to draw up forms by mutual agreement. The latter are then made out in two languages.

(See, for example, Agreement of October 30th, 1929, between Poland and Roumania (Article 8) ; Convention of March 27th, 1926, between Poland and Germany (Article 8).)

65. As regards the names of frontier stations, certain Conventions provide that the national regulations of the State concerned territorially shall be applicable.

(See, for example, Convention of May 30th, 1927, between Czechoslovakia and Poland (Article 17) ; Convention of June 30th, 1930, between Austria and Hungary (Article 8) (mentioned under paragraph 59).)

The names of the offices of the foreign administration situated at the frontier stations must sometimes be written up in both languages.

(See, for example, Convention of April 13th, 1925, between France and Germany (Article 23) ; Convention of June 30th, 1930, between Austria and Hungary (Article 8, paragraph 5) (mentioned under paragraph 59).)

66. As regards notices for the information of the public at frontier stations, the Conventions often provide that these shall be written in the official languages of the two administrations. In such a case, notices in the official language of the local administration usually come first.

(See, for example, Convention of March 27th, 1926, between Germany and Poland (Article 8) (mentioned under paragraph 64); Convention of May 30th, 1927, between Poland and Czechoslovakia (Article 17) (mentioned under paragraph 65).)

67. The question of the posting up of official notices, timetables, etc., of the neighbour administration at frontier stations, is also partly a language question, since the administration of the frontier station is required, under certain Conventions, to display in an appropriate place the official notices, time-tables, etc., supplied to it by the foreign railway administration, written in its official language.

(See, for example, Convention of May 30th, 1927, between Poland and Czechoslovakia (Article 17, paragraph 7) (mentioned under paragraph 65); Convention of June 30th, 1930, between Austria and Hungary (Article 8, paragraph 5) (mentioned under paragraph 59).)

H. FINANCIAL CONSEQUENCES OF INTER-STATE CONVENTIONS RELATING TO THE OPERATION OF THE FRONTIER SECTIONS OF RAILWAY LINES AND JUNCTION STATIONS.

68. The inter-State Conventions fixing the regime under which liaison is to be effected between railway systems situated in two neighbouring countries lay down in principle only the bases of such regime. As a rule they only go into details in questions involving the sovereignty of the States—*e.g.*, Customs, police, etc. These Conventions must therefore be supplemented by agreements between the railway administrations concerned, regulating, on the one hand, for frontier sections and, on the other, for junction stations, all the technical and financial particulars of the general organisation resulting from the Conventions. These agreements must usually be submitted to the competent administrations of the contracting States for approval.

In examining the consequences, and particularly the financial consequences, of the inter-State Conventions thus brought out in detail, by the agreements between railway administrations, it is advisable to classify these agreements according to their fundamental provisions, which differ considerably; for this reason, attention will also be drawn in the present chapter to certain details not usually included in inter-State Conventions.

69. In the absence of the ideal solution—viz., a station at the actual frontier carrying out all operations connected with the exchange of rolling-stock, traction and transit in both directions—these operations are divided between two junction stations situated on either side of the frontier and connected by a frontier section on which there may also be smaller local stations, or they are combined at a single station, sufficiently large and well equipped, situated in one of the territories concerned and separated from the frontier by a longer or shorter section of line, with or without local stations.

70. In the first case, the frontier section may be operated, both technically and financially, from each junction station as far as the frontier, entirely by the railway administration territorially concerned, which applies its tariffs as far as the frontier. Trains must however necessarily be driven in each direction as far as the foreign station, and the administration thus responsible for traction on a section operated by the other does so on this section for the account and at the expense of the latter.

This solution is the simplest of all. It is particularly suitable for lines on which there is very little traffic and on which exchange operations are therefore limited. The procedure is as follows :

71. *Frontier Section.* — Under this regime, each part of the frontier section is maintained and operated by the administration of the owner system. The administration of the other system is responsible only for traction and for the driving of the trains coming from its territory.

If there are any intermediate stations between the frontier and the junction stations, the service at those stations is usually in the hands of the system owning the part of the section in question, at its expense. Lastly, in order to simplify the service—e.g., to reduce the number of light engines running between the two frontier stations, the two administrations concerned may consider it preferable to entrust to one or other of them the traction and driving of all trains running in both directions between those two stations.

(See, for example, Convention concluded on February 4th, 1927, between the French Eastern Railway Company and the Belgian National Railway Company (Preamble).)

The services thus performed by one system for the other are paid for by a charge fixed, as a rule, per train-kilometre or per axle-kilometre and a charge per kilometre for light engines. These charges are computed on the basis of the average price of such items, overhead charges included, on the system performing the services, with, where necessary, a correction to take account of special features, particularly gradients, on the frontier section in question.

These same services are sometimes accounted for on the basis of payment in kind.

(See, for example, Convention of April 13th, 1925, between France and Germany regarding the organisation of frontier stations (Article 9).)

As stated above, on each section of the line, track maintenance is in the hands of the owner system. The other system sometimes reserves the right, if it considers that the state of the track is unsatisfactory, to require that it shall be inspected by officials of both systems and any defects found put right.

(See, for example, Convention concluded on February 4th, 1927, between the French Eastern Railway Company and the Belgian National Railway Company (Articles 1 and 2).)

The financial consequences of accidents or any damage caused on the frontier section either to personnel, material or goods, or to the various installations, or lastly to third parties, are usually borne by each system in its own territory, but subject to the right to claim against the other system if the damage is proved to have been due to the fault of the latter's personnel or a defect in its material or in the installations in its possession, for the upkeep of which it is responsible.

The consequences of fires are usually borne by each system in its own territory, to the exclusion of any claim by the neighbour system (*recours de voisinage*).

72. Stations. — Each system must provide at the exchange station in its territory all the establishments and installations required by international traffic and in particular by the exchange of rolling-stock. These installations are most usually supplied free of charge on a reciprocal basis, each system merely paying for the personnel, equipment and accessory supplies of which it makes use for its own account at the station of the other system.

(See, for example, Convention of April 13th, 1925, between France and Germany (Article 5).)

This arrangement of gratuitous service is only fair when more or less equivalent installations are provided at both stations, which is usually the case when the whole of the traffic, both passenger and goods, coming from the other territory is exchanged at each station. If the exchange in respect of the whole or part of the traffic is confined, in both directions, to one of the stations, the material services rendered by the two systems cease, as a rule, to balance; services rendered to the neighbour administration without countervailing services must then be remunerated by special charges.

(See, for example, Treaty of August 22nd, 1929, between the Midi Railway Company of France and the Northern Railway Company of Spain for the operation of the junction line from La Tour de Carol to Puigcerda (Article 4).)

In principle, the rules fixing the liability for damage to persons or goods caused by accidents or fire are the same for the separate exchange stations and the sections connecting them.

73. Where there are two junction stations connected by a frontier section, each of the two railway administrations *may prolong the entire operation for which it is responsible in its own territory as far as the station established in foreign territory.*

Under this regime, tariffs are fixed in two ways : (1) each of the two administrations fixes the transport rates as far as its own frontier station and the charges between the two stations are decided by mutual agreement and in each case added to those of the railway providing transport ; or (2) it fixes the rate as far as the frontier station of the neighbour State and continues to be responsible for operation as far as that point. These receipts accrue to the railway providing transport.

This solution, which is not very usual, appears to be justified only in very exceptional circumstances.

The procedure is as follows :

74. *Frontier Sections.* — In certain cases, the section has a double line, one track being allotted to each of the railway administrations, which works a kind of shuttle service without ever using the other track. This is the case in particular when the frontier section connects two railways with different gauges. The operation of each line is then sufficiently distinct for the charges to be apportioned without difficulty, each administration collecting its own receipts and being responsible for the working costs of the “ single-track ” line thus allotted to it.

Each of the administrations allows the other a certain agreed proportion of the charges, as, for instance, half the capital expenditure on the laying of the part of the section situated in the latter's territory.

Each administration is responsible for the maintenance and supervision of the tracks in its own territory or, in some cases, with a view to simplification, one of them is responsible for the maintenance and supervision of the whole section, thus acting, as regards the portion not in its territory, as maintenance contractor for account of the other administration. The costs of the supervision and maintenance of the whole line are then divided between the two

administration *pro rata*, according to the length of the parts of the frontier section in each of the territories concerned.

(See, for example, Convention of December 4th, 1863, between the Northern Railway Company of Spain and the Midi Railway Company of France for the operation of the line from Irun to Hendaye (Article 4).)

On the section between the two exchange stations, each administration is responsible for the faults of its officials, whatever their consequences in the shape of accidents or damage to material, etc.

In other cases, each of the administrations works its own trains, brings back its locomotives, light or with load, over the line, in both directions if it is a single-track line or on either track if there are two—one for each direction. In such a case, there is joint use of the line and the frontier section may be operated jointly, the expenses being divided in proportion to the use made of it—for instance according to the number of kilometres run by the trains of each of the participating administrations.

The receipts accrue to the administration which collects them. In some cases they are halved.

(See Annex VIII to the Official Report of June 13th-17th, 1933, of the Accounts and Exchange Committee of the International Union of Railways; Report of the Italian State Railways (Question 1, last paragraph; Question 6, third and fourth paragraphs).)

Each administration is responsible for the upkeep and inspection of the tracks in its territory, or one of them undertakes these duties for the whole section, the costs being charged to the joint account and divided as stated above.

The question of the liability of the two administrations in the event of fire, accidents and damage is usually settled as follows :

(a) Each administration assumes liability for the consequences of accidents and damage to persons and things when they are the result of its operation of the line, with the exception of accidents and damage to goods transported in the international service, in respect of which the provisions of the international Conventions are applicable;

(b) In doubtful cases, or when it is impossible to ascertain the cause of the accident or damage, or if the responsibility is shared by the administrations, liability for the consequences is divided in equal parts between the administrations concerned, or in accordance with the scale for the allocation of joint expenditure, or *pro rata* according to the number of train-kilometres;

(c) If the damage is due to *force majeure*, the liability rests with the administration owning the frontier section.

75. *Stations.* — The observations contained in paragraph 72 above with regard to junction stations apply in this case also.

76. When, contrary to the arrangements considered above, there is only one junction station, one or other of the administrations may be responsible for the entire operation of the part of the section connecting that station with the frontier.

As a rule, when it is operated by the territorial administration, the tariffs of each system are linked up at the frontier, and the foreign administration which is obliged to bring its trains as far as the single junction station is responsible for the traction and driving of those trains, and in some cases also for other operating services, for the account and at the expense of the territorial administration. In that case, the junction station may be a common station operated by the owner administration for the joint account of both administrations, although operation by the foreign administration ceases at the frontier.

(See, for example, Convention of April 20th, 1897, between the French Eastern Railway Company and the Belgian Railways Administration, regulating the running of Belgian trains on French territory (Article 1) and the regulations for the joint use of the station of Vireux-Molhain (Articles 1 and 5). See also Treaty of August 1st, 1934, between the P.L.M. Railway Company and the Italian State Railways Administration for the operation of the section of line from Modane to the frontier — the services being performed by the Italian State Railways for account of the P.L.M. Company, which operates this section — and for the *joint use* of the station of Modane.)

Details of the solution involving a single junction station coupled with operation by the territorial administration of the section between that station and the frontier are given below :

77. *Frontier Section.* — The traction and driving of trains between the frontier and the single junction station are effected by the administration of the system laid in the territory of the neighbour State, but, in this case, in both directions and without reciprocity. The local stations, however, which sometimes exist between the frontier and the junction station are more usually served by the trains of the local railway administration. In any case, the railway administration of the neighbour State which is responsible for the train services as far as the junction station acts as a contractor for these services and receives on this account from the administration operating this section remuneration, which is usually fixed per train-kilometre or per axle-kilometre, or per locomotive-kilometre when the locomotive is running light, apart from payment for material supplied, fixed in accordance with the international Conventions

in force for the exchange of material between two administrations belonging to neighbour States.

The track between the junction station and the frontier is maintained by the owner administration, which operates this section and therefore meets all charges and collects all receipts.

As regards relations between the administrations, the consequences of fires, accidents to persons or material occurring in connection with the running of trains or engines between the junction station and the frontier are sometimes borne by the owner administration, on the understanding that the administration responsible for traction is liable if the accident or fire is proved to have been due to the fault of an official or to an actual defect in the material of the latter administration, no other exception being allowed.

(See, for example, Treaty of July 27th, 1928, between the Midi Railway Company of France and the Northern Railway Company of Spain for the operation of the section from Canfranc to the frontier (Article 3).)

In other cases, it is also provided that liability for the consequences of accidents or fires shall be shared in equal proportions when there is any doubt as to who is responsible, when the responsibility is shared or if the accident has been caused by a vehicle which does not belong to either of the contracting administrations.

(See, for example, Convention of April 4th-May 23rd, 1912, between the Swiss Federal Railways Administration and the P.L.M. Company regarding train traffic on the line from Geneva to La Plaine and for their admission to Geneva—Cornavin station (Article 16).)

Lastly, in certain cases the liability is always shared equally, except when the accident is proved to have been due to the fault of one of the administrations, in which case the latter is alone liable.

(See, for example, Convention of April 20th, 1897, between the Belgian State Railways Administration and the French Eastern Railway Company, regulating traffic between the station of Vireux-Molhain and the Belgian frontier in the direction of Vierves (Article 5).)

78. Station. — The single junction station is not necessarily a common station—*i.e.*, one operated by the owner administration for the joint account of the two administrations whose systems connect.

In certain cases—though they are not very numerous—the administration responsible for traction and the driving of the trains between the frontier and the junction station, utilises the station for the requirements of its services. It carries out in the station, through its own officials, certain specific operations for its own account, and pays the owner administration a fixed annual royalty

for the use of the station and the few operations which for reasons of the general organisation of the service the owner administration carries out on the other administration's behalf. This is the case at Geneva (Cornavin), the P.L.M. Company being responsible for working the trains from or to France as far as that station.

Sometimes the junction station is regarded, at any rate for certain exchange operations, as a common station operated by the owner administration. In this case, the agreements enumerate as fully as possible (a) the station operations of concern to both systems which are thus carried out for their joint account, and (b) the station operations peculiar to each administration which are carried out by it, or, in any case, entirely at its expense and are consequently separated from the joint account. In accordance with this list, the agreements define the station installations allotted to the joint service, and those allotted to the individual services of either administration.

As regards joint installations and those allotted to the foreign administration in its own right and their subsequent modification or enlargement, a royalty is payable in the form of a percentage of the cost of constructing, modifying or enlarging the installations, usually representing the charges (interest, amortisation and cost of issue) on the debentures issued to meet this expenditure.

The whole of the royalty thus determined is paid to the owner administration by the foreign administration, in the case of installations allotted to the individual services of the latter. This sum is charged to the joint expenditure account of the two administrations when it relates to installations for their joint use.

Traction installations : locomotive sheds, water-towers, hydraulic cranes and turntables are placed, free of charge, at the disposal of the administration responsible for traction from the frontier to the common station.

The list of charges in respect of installations will be complete when it is added, since the question has sometimes given rise to lengthy controversy, that, in certain countries with a depreciated currency, the value of the joint installations has sometimes been converted into gold; by this means, an exact and stable value is fixed for these installations, though it may represent a source of unfair profit to the owner administration if it pays its loan charges in a depreciated currency.

The cost of upkeep of the installations and the working costs of the station in respect of its joint use are also charged to the joint expenditure account, the whole of this expenditure being divided in proportion to the interests of each party. Either party defrays exclusively its own individual expenses.

Lastly, at a common station, there are usually receipts in respect of the general operation of the station (land rent, buffet and book-

stall concessions, value of old stock scrapped, etc.), which are also placed to the joint account and divided between the two administrations in the same proportion as the expenses.

This division of joint expenses less joint receipts, in which account must be taken of the services derived by either administration from the working of the station and the use of its installations, is usually effected on the basis of one of the following rules, according to the degree of precision or simplification desired :

(a) In proportion to the number of lines belonging to either administration and ending at the common station, a coefficient being assigned to certain of the lines on which the traffic differs appreciably from that on the others ;

(b) In proportion to the number either of trains, vehicles or axles entering or leaving the common station, coming from or bound for either of the systems ;

(c) In proportion to the total annual expenditure in respect of the aggregate of the units of work of concern to both administrations (tickets, consignment and despatch, handling of goods, etc., shunting, trains run through, etc.), the estimated price of each being fixed by mutual agreement. Statistics with a view to the determination of this total are compiled for one or more specified periods, and the results are divided at a flat rate in the following years, each of the parties having the right to ask for a revision at specified intervals.

As regards relations between administrations, financial liability for the consequences of fires and accidents is usually determined on the following bases :

The consequences of fires are most frequently borne, irrespective of the place and cause of the loss and to the exclusion of any claim by the neighbour administration, by the owners—*i.e.*, the administrations, either jointly or severally, of the objects destroyed by fire. In some cases, the foreign administration pays a fee representing an insurance premium to the owner administration, which then bears exclusively the consequences of all fires.

The consequences of the loss or pilferage of goods or of damage done to them at the common station or found on delivery, and damage to the rolling-stock belonging to one of the administrations using the station, is determined in accordance with the international Conventions in force.

The consequences of other accidents or damages are borne by the party—*i.e.*, the administrations either jointly or severally—whose staff or material was the responsible cause thereof. In case of doubt as to responsibility, the consequences are usually charged to the joint account, and the cost is shared between the two partner administrations in the same proportion as other joint expenditure.

79. Lastly, there is the most thoroughgoing solution—*i.e.*, cases in which the section connecting the frontier with the junction station, which is then regarded as a common station, is operated by the foreign railway administration, which collects the receipts and takes over for its own account the expenses thereby incurred.

In this case, the tariffs applicable to this section are usually those of the foreign administration, which continues its own tariffs as well as its operation of the line as far as the junction station.

Details of this procedure are given below :

80. *Frontier Section.* — This is operated entirely, with all the financial consequences, by the foreign administration between the frontier and the common station, in accordance with its own regulations and also with its own tariffs. In certain cases, particularly when the distance between the station and the frontier is very short, the territorial administration is responsible for the supervision and upkeep of the track, but for the account and at the expense of the foreign administration operating the line.

(See, for example, Treaty of December 11th, 1928, between the Alsace-Lorraine Railway Administration and the Saar Territory Railway Board, for the operation of the section from Sarreguemines to the Franco-Saar frontier and the joint use of the station of Sarreguemines (Articles 1, 2 and 5).)

When the operation of the section is handed over to the foreign administration by the territorial administration which built the line, the latter administration usually undertakes as well responsibility for any additional work which may prove to be necessary. In return, the operating administration pays the owner administration for the use of the section on which it collects the receipts and meets the expenses, an annual royalty usually representing interest on the capital outlay for the original construction of the section, plus interest on any subsequent expenditure incurred on account of additional work on the section.

In certain cases, however, the administration owning a frontier line carrying a considerable and highly remunerative traffic, considers that the transfer of the operation of the section represents a loss of profits, and requires the fixed royalty to be increased by a share in the receipts, or even to be completely replaced by a larger share of the receipts or profits, such share not to fall below the amount of the fixed royalty. This rule is usually applied by the French Eastern Railway Company.

In principle, liability for the consequences of fires and accidents rests with the operating administration. Should the owner administration accept responsibility for the maintenance and supervision of the track, it is naturally responsible to the operating administration for damage due to deficiencies in the performance of those services.

As regards the track and fixed installations, the owner administration is liable only for damage due to *force majeure*.

81. Station. — In principle, the observations submitted in paragraph 78 above apply in this case also.

Traction services and installations are not, however, usually included in the joint account. If they are so included, the cost of these services and the expenses in respect of the relevant installations are usually divided in proportion to the number of locomotives using the said installations.

82. Inspection of the provisions adopted in regard to the frontier sections and frontier stations, each administration in charge of the telegraph and telephone lines of a State is usually responsible for the laying and upkeep of those lines in the territory of that State. Consequently this also applies to lines which follow the railway track, whether they have been laid in the building ground or not. The only exceptions to this rule relate apparently to technical details and to short distances.

The telephone and telegraph lines required for the operation of the railway are laid and maintained either by the railway administration concerned or, more often, when the lines use the supports of the public lines, by the State administration for the account and at the expense of the railway administration. The State administration does not, however, intervene on foreign territory and the administration of the railway entering a neighbouring territory is responsible for the upkeep of the telegraph and telephone lines required for the working of the line entrusted to it, unless their upkeep is ensured by the administration of the State territorially concerned for account of the operating railway administration.

I. STATE SERVICES OTHER THAN THE RAILWAY SERVICE.

83. It is not the object of inter-State Conventions on railway connections and the crossing of frontiers to lay down provisions regulating in substance the operation of the Customs and passport services, the health and veterinary service or the postal service, including telegraphs and telephones. When agreements are necessary in this connection, the States concerned usually conclude special conventions.

The arrangements concerning the above-mentioned administrative services included in inter-State Conventions on railway connections and the crossing of frontiers simply deal with the particulars of the organisation of the service.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 8, 9, 15, 43, 56 and 58); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 1 and 25); Convention of September 28th, 1932, between Hungary and Roumania (Articles 1 and 9).)

They contain provisions as to the joint offices and the working of the service in foreign territory (see paragraph 85 below), the provision and upkeep of premises in foreign territory and the compensation to be paid therefor (see paragraph 86 below), the fitting-up of such premises and their sign boards (see paragraph 87 below), the general working of the service (see paragraph 88 below), the laws and regulations applicable (see paragraphs 89 to 91 below). They also specify the rights and duties of the officials attached to such services in a foreign country. Since these regulations do not differ markedly from the rules described in Chapter A, III above, concerning railway agents, it does not appear to be necessary to reproduce them here.

Besides, most of the provisions applicable to services other than railway services are embodied either in Conventions regulating railway connections or in the special agreements mentioned above regarding the administrative services concerned (Convention of April 12th, 1930, between Austria and the German Reich on co-operation in Customs matters; Customs Agreement of February 20th, 1923, between Hungary and Austria).

84. There is no need in the present chapter to go into detail with regard to the postal, telegraph and telephone services. In the case of the postal service, the Conventions on railway connections are either silent on the subject or merely provide for the exchange of letters and postal packages at certain frontier stations, on the understanding that all the relevant details will be settled in special Conventions between the postal administrations. In the case of the State telegraph and telephone services, the only obligations that can arise are those mentioned in paragraph 82 of the present study.

(See, for example, Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 32, paragraphs 1, 4, 6, 7, Article 34, paragraphs 1 and 2).)

85. When the control of the State services referred to in the present chapter is exercised only at the stations situated on either side of the frontier in the territory of either State concerned or in the train while travelling through the said territory, no special international agreements appear to be required. The matter only needs to be regulated when these services or some of them are combined at a single frontier station or a separate frontier station for traffic in each direction, in which case such stations become international.

Similarly, special regulations are needed when the administrative operations in question take place in the train while travelling through foreign territory. In this latter case, it is usually agreed that the arrangements concerning agents seconded to frontier stations in foreign territory shall apply *mutatis mutandis* to the performance of the service in the train while travelling through the foreign territory.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 17 and 20); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 2, 20, 28, 31, 35, 37 and 38); Convention of September 28th, 1932, between Hungary and Roumania (Articles 22 and 26); Convention of April 13th, 1925, between France and Germany (Article 17).)

86. When the services in question are combined at an international station, an agreement is indispensable in regard to the provision and upkeep of premises. For reasons of simplification and with a view to the satisfactory allocation of premises, it is often better for the administrative services of the foreign State to come to an agreement with the railway administration of their own country, leaving it to the latter to make all the necessary arrangements with the railway administration of the neighbour State, not only as regards the provision of the premises needed for the railway services but also as to the provision and upkeep of premises for the administrative services in question. As a general rule, the reimbursement made in respect of these items represents interest on the capital outlay incurred for such premises. Reimbursement is usually required for costs of upkeep.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 32 and 33); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 3, 4, 9, 35, 36 and 38); Convention of September 28th, 1932, between Hungary and Roumania (Articles 23 and 40); Convention of April 13th, 1925, between France and Germany (Article 6, paragraphs 1 and 2(a), Articles 7 and 12).)

87. It is usually agreed that the offices of the services in question shall be distinguished by escutcheons bearing the emblems of the State under whose jurisdiction they are.

(See, for example, Convention of May 15th, 1922, between Germany and Poland (Article 11); Convention of March 29th, 1923 (Südbahn) (Article 42); Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 2, paragraph 4) (see under paragraph 12); Convention of September 28th, 1932, between Hungary and Roumania (Article 27).

88. In principle, the Conventions give an assurance that the operation of the services will not be interfered with in any way. The States grant the services concerned the right to export and receive funds without restriction and freely to import and export, free of Customs duties and charges, the materials, implements and supplies required for the service.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 40, 41, 54 and 55); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 23 and 32); Convention of September 28th, 1932, between Hungary and Roumania (Articles 11, 30, 34); Convention of April 13th, 1925, between France and Germany (Articles 27, 28 and 32).

89. The Conventions also determine the territorial competence of the foreign services. In this connection, it is usually provided, especially as regards the Customs services, that the two States shall exercise control in those parts of the station reserved for the joint services and the individual services of the foreign administration and over the frontier section.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 44 and 48); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 15, 18 and 24); Convention of April 13th, 1925, between France and Germany (Articles 13, 19 and 26).)

Many Conventions also determine the order in which the two administrations may take official action and provide that the administrative acts of the officers of the country from which the train comes shall take place before those of the officers of the country for which it is bound.

(See, for example, Convention of July 16th, 1928, between France and Spain (Canfranc) (Article 16); Convention of September 28th, 1932, between Hungary and Roumania (Article 37).)

90. To apply its municipal law in the service on the territory of the foreign State and to give a legal basis to official acts performed in the train while travelling, it is not sufficient for the State concerned, to extend by a domestic measure, its municipal law, as regards the cases in question, to the frontier section of the foreign territory and to the frontier station, or to the official acts performed in the train while travelling; these points also must be settled in a convention with the neighbour State. In the absence of such convention, it would only be possible to apply, in the territory of the neighbour State, in accordance with the principle of State sovereignty, the municipal law of such neighbour State. It is therefore usually provided that all official acts performed by services established in

the territory of the other State shall be governed by the municipal law of the State under whose jurisdiction they are.

(See, for example, Convention of March 29th, 1923 (Südbahn) (Articles 45 and 46); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 16, 17, 22 and 35) (already mentioned in paragraphs 85 and 86 above); Convention of September 28th, 1932, between Hungary and Roumania (Article 37) (already mentioned under paragraph 89 above); Convention of April 13th, 1925, between France and Germany (Articles 14, 15, 16, 18, 20, paragraph 5).)

91. As regards the performance of service in a foreign territory, and more especially the adoption of measures relating to Customs and police supervision and the detection and prosecution of offenders, the Conventions often contain provisions whereby the local administration is required to lend its assistance. In some cases, it is even agreed that the authorities of the two States must collaborate in the prevention of offences and communicate to each other any information likely to facilitate the discharge of their duties.

As a general rule the officers of one State do not possess the right to arrest an offender in the foreign State. In most cases, however, they are authorised to seize him and hand him over to the competent authorities.¹

(See, for example, Convention of September 28th, 1932, between Hungary and Roumania (Article 30); Convention of July 16th, 1928, between France and Spain (Canfranc) (Articles 21, 22, 27, 28, 29, 30 and 39); Convention of April 13th, 1925, between France and Germany (Articles 15, 20, 21, 22, 29 and 30); Convention of March 29th, 1923 (Südbahn) (Articles 45 and 47).

J. STATUS OF FRONTIER SECTIONS IN THE EVENT OF A CHANGE OF SOVEREIGNTY.

92. The following three cases must be examined separately :

(a) Where the territory on which the business headquarters of the railway connecting with the neighbour system is situated

¹ As regards prosecutions, the State whose officers proceed to official acts in foreign territory may, under the extradition treaties in force, request the extradition of the offenders or, if the required conditions are not fulfilled, ask the neighbour State to take proceedings. As a general rule the principle applied appears to be that, as regards procedure, the provisions of the territorial legislation should be enforced, whereas as regards substantive questions and in some cases for the determination of the penalty the legislation of the State whose law has been infringed should be applied. These rules hold good when the offender has been arrested on the spot. When he has not been seized and is subsequently found on the territory of the State against whose service the offence has been committed, the offender may be prosecuted in accordance with the laws of that State.

passes from the sovereignty of one State to that of another without any modification of the frontier crossed by that railway ;

(b) Where the territory which the railway enters in order to connect with the neighbour system is transferred from the sovereignty of one State to that of another without any modification of the frontier crossed by the railway ;

(c) Where the frontier between two territories is modified, with the result that a railway line formerly situated within one of the two territories is cut in two by the new frontier line.

93. In the case mentioned under (a) in the previous paragraph, it would appear that, as regards private railways, the concessions granted by the old State will in principle remain in force *vis-à-vis* the new State. The latter's right if necessary to expropriate or purchase the system merely confirms this principle.

On the other hand as regards State railways, it is obvious that, as Treasury property, they will be transferred without further formality to the ownership of the new State, whether the old State has received compensation or not.

(See, for example, Treaty of Versailles (Articles 67, 256 and 371) ; Treaty of St. Germain (Articles 189 and 318).)

The status of the section of this railway situated in the neighbour territory usually conforms to that of the main system—*i.e.*, it will continue to be the property of the private railway or will be transferred, as Treasury property, from the ownership of the old State to that of the new.

In both these cases, and also when the frontier section does not belong to the railway (private or State) but is merely operated by it, and, lastly, when the latter railway is responsible only for the traction service, the agreements concluded between the railway on the one hand and the neighbour State and railway on the other will in principle remain in force—*viz.*, without any further formality in the case of the private railway and its neighbours—by succession in the case of the State railway and its neighbours, unless the new State declines to be recognised as the successor of the old State, and with the exception of agreements in regard to which the treaties contain contrary provisions or which have lapsed as the result of those treaties.

(See, for example, Treaty of Versailles (Articles 289 and 292).)

There are a large number of examples of the foregoing procedure.

(See, for example, railway relations between Switzerland and Alsace-Lorraine at the Basle station and between Luxemburg (Alsace-Lorraine) and Belgium concerning the train services on the

sections from Luxemburg to Klein Bettingen, Arlon and from Trois-Vierges to Gouvy, to mention only two cases in which the agreements are still in force.)

94. In the case mentioned under (b) in paragraph 92 the old State, as the concessionary and supervisory authority, had concluded with the railway making the connection a contract for the construction of the frontier section and its operation, or the traction and joint use of the frontier station, or had approved such contract. In accordance with the general rules governing succession, the new State is in principle bound by this contract *vis-à-vis* the said railway. It follows that the new State has all the rights but also all the obligations resulting from this contract.

95. In the case mentioned under (c) of paragraph 92, there is no doubt as to the new situation of the railway when it is the property of the State. As mentioned above, the section transferred as Treasury property becomes the property of the State acquiring the territory. Needless to say, the frontier constitutes the dividing line between the property of the two States on the railway. As, however, the service of the two State railways cannot in most cases stop short at this geographical line, the question of frontier lines and stations arises and an agreement as to the connection of the two systems is required.

The position is quite different in the case of privately-owned railways, as their rights and obligations under their concession also remain valid in principle *vis-à-vis* the new State. The service of the private railway line across the frontier must not be interfered with. Besides it is quite possible that, at any rate at first, administrative and technical complications may arise owing to the existence of two supervisory authorities, the possible application of two sets of transport regulations, the absence of installations for the frontier service, etc.

Moreover, serious difficulties may occur if one of the States decides to make use of its right to purchase or expropriate the line situated in its territory, since the operation by the private railway of the remaining section situated in the neighbour territory—which may be only a few kilometres in length—cannot reasonably enter into account, especially as the old railway system formed a legal, economic and financial unit.

In such cases, there is often only one solution. The private railway transfers the operation of the remaining section to one State or the other and they both come to an amicable arrangement with the railway company on financial questions and the possible purchase of the section in question.

It should be noted that the Treaties of St. Germain (Article 320) and Trianon (Article 304) contain special provisions regarding private railways situated in the territory of the former Austro-Hungarian Monarchy. Article 320 of the Treaty of St. Germain says :

“ With the object of ensuring regular utilisation of the railroads of the former Austro-Hungarian Monarchy owned by private companies which, as a result of the stipulations of the present Treaty, will be situated in the territory of several States, the administrative and technical reorganisation of the said lines shall be regulated in each instance by an agreement between the owning company and the States territorially concerned.

“ Any differences on which agreement is not reached, including questions relating to the interpretation of contracts concerning the expropriation of the lines, shall be submitted to arbitrators designated by the Council of the League of Nations.

“ This arbitration may, as regards the South Austrian Railway Company, be required either by the Board of Management or by the Committee representing the bondholders.”

The arrangement proposed for the regulation of the situation of the Südbahn is the Rome Agreement of 1923 (see above). In many cases, the position of other private railways has been settled amicably. In others, litigious questions have been settled by arbitrators appointed by the Council of the League of Nations.

Annex.

FERRY-BOATS.

96. The establishment of railway communications by the use of ferry-boats to connect the railway systems of countries separated by the high seas has created a somewhat special technical and legal situation.

97. Railway administrations desirous of establishing direct communications by a ferry-boat service will naturally agree upon the type of vessel and landing-stage to be used and any other questions regarding the safety of transhipment and the service during the crossing. They will also fix the number of boats to be used, the number of crossings which each administration is to provide and, if necessary, the payment of charges by either party.

As, however, the service is usually run from both sides, and as the number of passages is therefore identical, the administrations—which, in all but exceptional circumstances, have the sole use of their boats and personnel—usually pay their own working costs. There is also a system of remuneration by means of payment in kind, the administrations guaranteeing to exempt each other from all charges for the use of their respective ports by the ferry-boats and carrying out for their own account the various formalities at the two coast stations (forwarding formalities, operations connected with the arrival and departure of ferry-boats, Customs clearance of goods, etc.).

Only if the number of crossings provided by one of the administrations exceeds one-half the total crossings made during a specified period, is it entitled to reimbursement from the other administration, either in the form of a cash payment or in kind.

As regards the framing of tariffs and the calculation of the share due to each administration, the distance between the two coast stations is divided into equal parts, so that the receipts from the transport of passengers and goods on the maritime line do not necessitate any special settlement of accounts.

(See, for example, Agreement of November 7th-9th, 1898, between Germany and Denmark (Articles 1, 2, 3, 4, 5, 6 and 8).)

As regards any expenditure incurred by reason of damage to the landing-stages used by ferry-boats, the Agreement of April 13th-May 9th, 1922, between the Danish State Railways and the Swedish State Railways concerning the ferry-boat service between Copenhagen and Malmö provides that this expenditure shall be borne in the Free Port of Copenhagen by the Danish Railways and in the Port of Malmö by the Swedish Railways (Article 14).

(See also Agreement of February 22nd-25th, 1932, between Denmark and Sweden (Article 11).)

98. As regards the legal situation, it should be noted that, in accordance with the general rules of maritime law, a ferry-boat, like any other vessel, is placed, as soon as it has left the port and territorial waters of the foreign country, under the exclusive jurisdiction of the country whose flag it flies—as a general rule, therefore, of its own country. In fact, the ferry-boat on the high seas is merely a part of the national territory.

99. The special situation of ferry-boats is therefore fairly clear and simple both from a technical and a legal standpoint, and it may even be said that, as regards the demarcation of the competence of two neighbouring States and the railway administrations concerned, the maritime route in many respects presents fewer difficulties than land frontier lines.

PART II.

3.

INTERNATIONAL CONVENTION of November 3rd, 1923, relating to the Simplification of Customs Formalities.

Article 14. — The Contracting States shall consider the most appropriate methods of simplifying and making more uniform and reasonable, whether by means of individual or concerted action, the formalities relating to the rapid passage of goods through the Customs, the examination of travellers' luggage, the system of goods in bond and warehousing charges, and the other matters dealt with in the Annex to this article.

In giving effect to this article, the Contracting States will extend favourable consideration to the recommendations contained in that Annex.

ANNEX TO ARTICLE 14.

A. — *Rapid Passage of Goods through the Customs.*

Organisation and Working of the Service.

1.

2. It is desirable that, unless abuse is suspected, and subject to the rights of States under their own legislation, the lead or other Customs seals affixed by a State to goods which are in transit or on their way to warehouses should be recognised and respected by other States, apart from the right of the latter to affix new Customs marks in addition to the lead or other seals.

Passage of Goods through the Customs.

3. It is desirable that the States should, as far as is possible, but without prejudice to their right to levy special charges :

(a) Facilitate the clearing of perishable goods outside ordinary office hours and on days other than working days ;

(b)

Facilities granted to Persons declaring Goods.

4. It is desirable that the consignee should always be free, except in so far as otherwise provided by Article 10 of the Berne Convention of October 14th, 1890, regarding the Carriage of Goods by Rail, which was amended by the Berne Convention of September 19th, 1906, to declare, in person, goods in a Customs Office, or to cause this declaration to be made by some person designated by him.

.....

B. — Examination of Baggage.

11. It is desirable that the practice of examining hand baggage in trains consisting entirely of corridor stock, either *en route* or when the train stops at a frontier station, should, if possible, be generally applied.

.....

13. It is desirable that notices should be posted on the Customs-House premises and, as far as possible, in railway carriages and on boats, stating the charges and duties payable on the chief articles which travellers usually carry, and also a list of the articles the importation of which is prohibited.

.....

E. — Co-operation of the Services concerned.

18. It is desirable to develop the system of international railway stations and to obtain effective co-operation among the various national organisations established therein.

It would also be advisable to establish the closest possible concordance between the functions and office hours of the corresponding offices of two contiguous countries, whether in the case of roads, rivers or railways. The practice of establishing the Customs offices of contiguous countries in the same place, and if feasible, even in the same building, should if possible be made general.

8.

TREATY of March 6th-7th, 1885, between the State of Geneva and the Paris-Lyons-Mediterranean Railway Company for the Operation of the Railway from Les Vollandes to the French Frontier in the direction of Annemasse.

Article 13. — The State of Geneva, as the concessionaire, shall be represented in its dealings with the leasing company by the

Committee of Three Members set up by the Agreement of June 13th, 1863, which shall exercise in respect of the section from Geneva-Vollandes to the French frontier in the vicinity of Annemasse the powers vested in it in respect of the section from Geneva-Cornavin to La Plaine.

TREATY of November 25th, 1895, between Switzerland and Italy for the Construction and Operation of a Railway *via* the Simplon from Brigue to Domodossola.

Article 17. — The Swiss Federal Council agrees that a reasonable number of members to be appointed by it on the recommendation of the Italian Government shall form part of the Board of Directors of the Jura-Simplon Company as from the exchange of ratifications of the present Treaty.

9.

FEDERAL LAW of December 23rd, 1872, regarding the Construction and Operation of Railway Lines in the Territory of the Swiss Confederation.

Article 7. — The Articles of Incorporation of the railway companies shall be subject to approval by the Federal Council and may not be modified without its consent.

The Federal Council shall approve such Articles of Incorporation after prior consultation of the cantonal Governments.

Article 8. — The registered head offices of each company shall be specified in its concession.

Nevertheless, the companies shall be required to elect a legal domicile in each of the cantons through whose territory their lines may pass, in order that actions may be there brought against them by the inhabitants of such cantons.

Subject to the rules to be laid down by the Confederation with regard to mortgages on railways (Article 11), jurisdiction in actions *in rem* shall lie with the courts of the place in which the subject of the action is situate.

10.

FEDERAL LAW (Swiss) of March 27th, 1896, regarding Railway Accounting.

Article 1. — The accounts of all railways situated in Switzerland shall be subject to the provisions of the present law. The same stipulation shall apply, failing express provision to the contrary

in international treaties, to railways situated in Switzerland which are the property of or are operated by foreign undertakings.

Furthermore unless otherwise provided in the present law, the rules of the Federal Code of Obligations shall be applicable to limited liability companies.

The provisions of Articles 11-14 of the present law shall not be applicable to lines belonging to cantons or to foreign undertakings.

12.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 36. — The Government in whose territory the common station or interchange station is situated shall have full authority in all political and judicial matters within the precincts of the station and on the railway between such station and the frontier.

AGREEMENT of December 31st, 1850, between the Imperial Austrian Government and the Royal Government of Saxony regarding the Junction of the Railways of the Two States.

Article 5. — . . . Furthermore, the Government of Saxony shall have the right to set up in the railway station (Bodenbach, in Austrian territory) an office of the State Railways, displaying outside the emblems and arms of the Kingdom of Saxony.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 23. — The French offices installed in the joint frontier stations on the right bank of the Rhine shall be indicated by an inscription in both languages, without the addition of any emblem of sovereignty of any kind.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 2. —

3. The uses of the various premises and plant of the international station shall be indicated by notices in both languages.

4. Each Government may also require that premises used for all or part of its railway for administrative services be indicated by the arms of its country.

13.

RAILWAY CONVENTION of December 11th, 1902, between the Argentine and Bolivia.

Article 2. — The Bolivian Government may at any time acquire that section of the line which passes through Bolivian territory, on payment of the cost of such section ; nevertheless, during such time as the said sum shall not have been paid, the Argentine Government shall have charge of the administration and management of the line under conditions analogous to those governing private undertakings, without prejudice, however, to the rights inherent in the sovereignty of Bolivia. The Bolivian Government may also at any time refund a part of the capital expended, and in that event shall be entitled to a share in the profits of the line proportionate to its contribution.

CONVENTION of July 27th-August 11th, 1852, between the Swiss Confederation and the Grand-Duchy of Baden, with regard to the Extension of the Baden Railways into Swiss territory.

Article 40. — The Baden Railway Administration shall be subject, as regards the construction and operation of the railway and everything pertaining thereto, to the Swiss judicial and other authorities in accordance with the laws and ordinances in force.

To that end, judicial and other writs, and orders emanating from the Railway Administration, may be validly served or conveyed at the stations of Basle and Schaffhausen.

ADDITIONAL PROTOCOL of August 11th, 1852.

In order to give effect to the provisions of Article 40, the Baden Railway Administration shall acquire legal domicile at the stations of Basle and Schaffhausen respectively, clause . . . notwithstanding.

CONVENTION of November 23rd, 1869, between the Baden Railway Administration and the Swiss Central Railway Administration regarding the Construction and Operation of a Junction Railway between the Badischer Bahnhof at Klein-Basel and the Central Railway Station at Gross-Basel.

The Central Railway Administration having declared its readiness to make application to the competent (Swiss) authorities for a concession for the construction and operation of the said junction railway . . . and, at the same time, to apply for authority for

the association of the Baden State Railway Administration in the operation of the said junction railway with the same rights as the railway which is the grantee of the concession throughout the duration of the concession.

14.

TREATY of August 1st, 1934, between Paris-Lyons-Mediterranean Railway Company and the Italian State Railways for the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 9, II. —

2. The State Railway Administration shall have at Modane station an agent of its own, entitled “representative”, whose special duty it shall be to represent its commercial interests *vis-à-vis* both the public and the P.L.M. Administration.

15.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 35. — 1. The officials or employees of the French Customs or railway services on duty in the joint frontier stations on the right bank of the Rhine shall be permitted to live with their families in the places in which the stations are situate or in their immediate neighbourhood. Such permission shall not constitute any privileged position in relation to the regulations with regard to the settlement of French nationals in Germany

* * *

CONVENTION of July 18th, 1929, regarding the Operation of the International Stations at La Tour de Carol and Puigcerda and the Junction Line between those Two Stations.

Article 21. —

4. The said officials, agents and employees of the French services shall not, unless of Spanish nationality, be subject to military service of any kind or to the performance of any personal services for the benefit of the Spanish Government or other regional or local authorities, nor shall they be liable to any taxes of any nature whatsoever other or higher than those payable by Spanish nationals.

5. The aforesaid officials, agents and employees of the Spanish services shall not, unless of French nationality, be subject to military service of any kind or to the performance of any personal services for the benefit of the French Government or other regional or local authorities, nor shall they be liable to any taxes of any nature whatsoever other or higher than those payable by French nationals.

16.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 52. — In all matters affecting their duties and in questions of discipline, the officials of the neighbouring State on duty in the territory of the State in which the common station is situated shall be answerable solely to the authority of the State to which they belong. They shall, however, be subject to the criminal laws and police regulations of the State in which they are temporarily domiciled and, for this purpose, shall be subject to the jurisdiction of that State. They shall be exempted from taxes and personal services imposed by the State in which they are domiciled and shall not be required to pay taxes on movable property, income or annuities. They shall not, moreover, be called upon to serve in the army or national guard or on juries or as members of self-governing local bodies.

The said officials shall, nevertheless, pay taxes on immovable property owned by them in the State in which the common station is situated on the same terms as the subjects of that State, and also Customs duties and other indirect taxes.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 40. —

5. The aforesaid officials, agents and employees, unless of Spanish nationality, shall not be required to perform any military service, or any personal service for the Spanish State or other bodies, regional or local, or be subjected to any imposts whatsoever other or higher than those to which Spanish nationals are liable.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 37. — 1. The officials and employees of French nationality belonging to the French offices of the joint frontier stations on the right bank of the Rhine shall not be subject to any taxation by reason of their official position, nor shall they be compelled to perform any personal service for the German Reich or any other German public body.

2. Nevertheless, the German fiscal legislation shall be applicable in its entirety to such officials or employees if they live on German territory : but they may not under any circumstances be compelled to pay higher taxes than the other inhabitants of the place in which they live.

* * *

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 51. —

2. Officials employed in the offices of the neighbouring State on duty in the territory of the State in which the common station is situated . . . and their families shall, if transferred, enjoy exemption from Customs duties for such furniture and effects as they may desire to remove, provided that these articles have served for their personal use, and for their uniforms and arms intended for their personal use.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 42. — Officials, agents and employees of the French railway and administrative services residing in Spain shall be exempt from all Customs duties in respect of articles coming from France and intended for their personal consumption or use ; they shall also enjoy a similar privilege in respect of the redespach of the same articles to France.

Import and export prohibitions, other than those of a public and sanitary nature, shall not be applicable to the said articles.

The exemptions mentioned in the preceding paragraph shall, after the usual production and verification, be accorded by the Spanish Customs on the production of a certificate from the French authority to which the applicant is subordinate, but without prejudice to any additional supervisory measures that may be necessary in cases of abuse.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 34. —

2. Roumanian agents shall be entitled to have such food, heating and lighting supplies as they may actually require sent

from their own country, provided always that they notify the Hungarian Customs in advance.

3. The Hungarian Customs authorities shall grant import and export, free of all duties and charges, on production of the certificate from the head of the Roumanian office concerned :

(a)

(b) In respect of household articles belonging to agents employed in such offices ;

(c) In respect of all articles sent by such agents to their own country for repair, mending, cleaning, etc., and subsequently returned to them.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 37. —

3. The officials and employees of French nationality belonging to the French offices of the joint frontier stations on the right bank of the Rhine, . . . whether living on German territory or not, shall enjoy complete immunity from Customs from France for their own consumption or use or for the consumption or use of their families, it being understood that such immunity shall not extend to internal German taxes or dues. Such objects shall enjoy the same immunity on being sent back to France. No import or export prohibitions, except such as relate to public order or the health of men, animals or plants, shall apply to the said objects.

4. The exemptions for which provision is made in the preceding paragraph shall be accorded after the usual exhibition to the competent Customs authority and inspection by the same, without further question on presentation of a certificate by the French authorities to which the applicant is subordinate. Nevertheless, the right to have recourse to further measures of control in the event of abuses occurring is reserved.

* * *

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 51. —

3. The officials of one State appointed to the common station shall be exempted from passport formalities when entering the other State. Higher officials proceeding on special duty to the offices of

their own State in the said station shall also be exempted from such formalities. In both the above cases, the instructions issued to such officials by their superior officers shall be accepted by the competent authorities of the State whose territory they enter as sufficient proof of their status. The form in which such instructions will be drawn up shall be determined by agreement between the administrations concerned.

4. The members of the families of these officials of all grades shall also be exempted from passport formalities ; they shall, however, be subject to all regulations concerning frontier traffic.

CONVENTION of April 13th, 1925, between France and Germany
regarding the Organisation of Frontier Stations.

Article 24. — The French officials and employees on duty in the joint frontier stations on the right bank of the Rhine, and the higher inspecting officials to whom they are subordinate, shall be supplied by the French authorities with identification papers of which a pattern should be submitted to the German authorities. They shall be required at all times when on duty to carry such identification papers on their person : and shall be entitled when in possession thereof to free transit between the frontier stations and France without requiring a special passport or frontier card.

The names and official position of French officials and employees permanently employed in the joint frontier stations on the right bank of the Rhine must further be notified to the head office of the German Railways at Karlsruhe.

Article 36. — The French officials and employees belonging to the French offices in one of the joint frontier stations on the right bank of the Rhine, who do not live on German territory, shall be entitled on showing the identification papers specified in Article 24 to proceed without let or hindrance between French territory and the station by the usual routes (rail or road) and by any means of transport.

They shall further be entitled, subject to the same conditions, to move freely about the place in which the frontier station is situated or, if there is no means in the place in question of their providing themselves with the necessaries of everyday life, to proceed for the purpose to the nearest place in the neighbourhood.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation
of the International Station of Canfranc and of the Line
connecting that Station with the French Station of Les
Forges d'Abel.

Article 41. — Officials, agents and employees of the French railway and administrative services residing in Spanish territory

or entering that territory for reasons connected with their service shall receive from their respective administrations identity papers, a specimen of which must be submitted to the Spanish authorities.

2. They must always carry such papers on them when on duty.

3. These papers shall serve as travel permits between Canfranc station and Les Forges d'Abel, and the holders shall need no passport or frontier card.

4. The said officials, agents and employees and their families residing in Spanish territory shall, if necessary, be provided by the local Spanish authorities with residence permits and other papers free of charge.

CONVENTION of September 28th, 1932, between Hungary and Roumania regarding the Organisation of Frontier Stations.

Article 17. —

3. All agents arriving on duty at the other frontier station shall be exempt from the obligation to produce a passport and visa ; they must, however, hold an identity card issued by their own administration or competent authority. Particulars of the engine and train staff shall likewise be entered in the traffic report of the train, and particulars of the staff of the travelling post offices in the report sheet. . . .

Article 32. — The Roumanian agents permanently employed at the frontier offices at Kőtegyán station, those arriving there from time to time for the purpose of performing their duties in accordance with the present Convention, and the agents of the higher authorities and services responsible for the inspection of any one of the frontier services shall be exempt from the obligation to obtain a passport and visa in order to cross the frontier. All such agents shall, however, hold an identity card issued by their own competent authorities.

The competent Hungarian police authority shall issue to the Roumanian agents employed at the frontier offices at Kőtegyán station, and to such members of their families as may be living with them, identity papers authorising the holders to move freely within the precincts of the joint frontier station and the territory of the commune of Kőtegyán and to cross the frontier in either direction.

17.

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of the Conditions attaching to the Crossing of the Frontier and Connections in the Railway Traffic between the Two Countries.

Article 11. —

6. The legislative or other restrictions which may be placed upon the residence of foreigners in one of the Contracting States shall

not apply to railway officials who, in the execution of their duty, are permanently or temporarily in the territory of the other State, or to the members of the families of those officials living with them when these are obliged, for reasons connected with the service, to live in the territory of the State in question.

* * *

CONVENTION of September 28th, 1932, between Hungary and Roumania regarding the Organisation of Frontier Stations.

Article 25. —

4. It is agreed that neither the administration of the Roumanian railways nor the Customs or police authorities of the Kingdom of Roumania shall detail for service at Kőtegyán station more staff than is absolutely necessary for the regular operation of the services in question.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 34. — 1. The following provisions shall apply as regards the use of the section of the railway situated between the frontier and the common station and the joint use of the necessary sites for railway traffic in the said stations.

2. Trains shall be driven as far as the common station by the locomotive crew belonging to one State. The same rule shall hold good for staff accompanying the train.

3. The names of the persons to be employed in this service shall be notified to the administration of the adjacent State eight days in advance.

4. The latter administration shall be entitled to object for legitimate reasons to any specified individual.

5. Such objections shall be given due consideration.

6. Suitable accommodation will be provided at the common station where the railway traffic is handled for members of the staff not continuing the journey.

7. The railway administrations concerned shall come to an agreement regarding the details of the system adopted for the circulation of trains. . . .

Article 37. — Subject to the conditions stipulated in Article 34, the administration of the other State shall have the right to appoint the officials and all members of the staff employed exclusively for its own services in the common station.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania, regarding the Organisation of Frontier Stations.

Article 17. — Each railway administration shall see that a list containing the names of all the agents arriving on duty at the other frontier station shall be handed to the stationmaster in charge. The competent authorities shall be entitled to protest against the employment of any particular individual. The administration or authority employing the person in question shall immediately comply with the terms of such protest.

2. Any subsequent change in the staff shall be notified in advance and in the manner prescribed above, to the stationmaster of the frontier station concerned. In exceptional circumstances, and more particularly when an emergency requires the immediate employment of any particular person, with the result that—through lack of time—prior notification is impossible, such notification shall be sent subsequently, but in any case without delay. . . .

Article 33. — Members of the Roumanian armed forces shall be debarred from all employment in Hungarian territory.

* * *

TREATY of August 27th, 1870, between Switzerland, the Austro-Hungarian Empire, also representing Liechtenstein, and Bavaria, regarding the Construction of a Railway from Lindau to St. Margarethen, *via* Bregenz, and of a Railway from Feldkirch to Buchs.

Article 14. — Any persons legally convicted of crimes or offences under the ordinary law of the land for smuggling or for serious infringements of the toll regulations shall not be employed upon the lines mentioned in the present Treaty.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 38. — 1. The Governments of the High Contracting Parties undertake to prevent persons who have been convicted of smuggling or of other serious breaches of the finance laws from being appointed for service in a station situated in the territory of the other State, either as employees or as members of locomotive crews employed by the railway administrations concerned.

2. No employee or Customs official whom the Customs administration of the State in whose territory a common station is situated

may have ground for excluding shall carry out any formalities in connection with imports, exports or transit in such station.

3. Should an official or agent of one State, who has received permission, for the purpose of discharging his duties, to reside in or enter the other State, be proved guilty of a crime or offence, whether civil or political, or of a simple misdemeanour or of a breach of the finance laws, the Government of the State on whose behalf he is employed or whose agent he is shall immediately take steps to replace him.

Article 39. — The foregoing provisions shall not be regarded as in any way modifying the law in each State in respect of the statutory penalties for fraud, smuggling and breaches of the Customs regulations or in respect of import, export or transit prohibitions or restrictions.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 31. — 1. With a view to preventing all disputes and ensuring the regular operation of the service, the executive agents of the two parties shall be required to proceed with all due consideration, both in the performance of their duties and even when not on duty. Any agents failing in this obligation shall be removed at the request of the other Party. Similarly, any Roumanian agents detailed for services at Kőtegyán station against whom objections of any other nature may be raised, if necessary without any indication of the reasons therefor, shall be removed with the least possible delay.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 33. —

3. The French Government undertakes to transfer elsewhere any official, or employee belonging to a French office in a joint frontier station on the right bank of the Rhine, whose conduct or record in respect of the criminal law affords grounds for reasonable complaint by the German authorities.

AGREEMENT of December 31st, 1850, between the Imperial Austrian Government and the Royal Government of Saxony regarding the Junction of the Railways of the Two Governments.

Article 5. — The right to appoint and engage officials and employees to inspect and keep up the permanent way, and to maintain the special railway police service and the service of the Royal

Saxon Administration at the station of Bodenbach, shall be exclusively vested in the Royal Government of Saxony; similarly, such officials and employees shall be exclusively subject to the authority of the said Government for service and disciplinary purposes.

CONVENTION between Bulgaria and Serbia regarding The Junction of Railway Lines, signed at Sofia on September 14th, 1887.

Article 35. — For service and disciplinary purposes, any officials and employees of either of the Contracting States, who may be stationed in the territory of the other Contracting State in virtue of the present Convention, shall be exclusively subject to the control and authority of the Government by which they were appointed.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 45. — 1. The officials of one State serving in the territory of the other State shall be authorised to perform their duties according to the customs and regulations in force in the State to which they belong.

19.

CONVENTION of May 15th, 1922, between Germany and Poland for the Establishment of a Conventional Regime in Upper Silesia.

Article 422. —

2. Each administration shall have the right to attach to the junction frontier station situated on the railway of the other administration a representative under whose orders its staff at such station shall be placed.

Article 422 (a). — Each administration shall have the right to attach to the junction frontier station situated on the railway of the other administration a representative under whose orders its staff at such station shall be placed.

20.

TREATY of December 10th, 1870, between Switzerland and the Grand-Duchy of Baden regarding the Junction of the Thurgovian Seethal Railway with the Baden State Railway.

Article 8. — . . . Each of the two railway administrations shall, moreover, exercise disciplinary authority over their respective staffs employed at the station of Constance.

CONVENTION of April 13th, 1925, between Germany and France regarding the Organisation of Frontier Stations.

Article 34. — For all purposes of duty or discipline, the officials and employees of French Administrations in the joint frontier stations on the right bank of the Rhine shall be subject to the French authorities alone.

CONVENTION of July 18th, 1929, regarding the Operation of the International Stations of La Tour de Carol and Puigcerda and the Junction Line between those Two Stations.

Article 21. — 1. The officials, agents and employees of the railway and administrative services of either country residing in or entering the territory of the neighbouring country for reasons connected with their service, shall be subject to the laws and to the courts of that country. Nevertheless, for service and disciplinary purposes they shall be exclusively subordinate to the authorities of their own country.

2. Should proceedings be taken against one of these officials, agents or employees, the authority to which he is subordinate shall be immediately advised.

3. Simultaneously with the legal proceedings taken against the accused, an administrative enquiry shall be opened on the termination of which the Government of the country of which the accused is a national may order him to be replaced either on its own initiative, or at the request of the other Government, should the circumstances justify such rigorous measure.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 16. —

3. In all matters pertaining to service and discipline, all foreign agents shall be subject to the exclusive control of their own competent authorities.

21.

TREATY of August 27th, 1870, between Switzerland, the Austro-Hungarian Empire, also representing Liechtenstein, and Bavaria, regarding the Construction of a Railway from Lindau to St. Margarethen via Bregenz, and of a Railway from Feldkirch to Buchs.

Article 13. — . . . The whole staff of officials, employees and workmen shall be subject to the laws and police regulations of the State in whose territory they may happen to be.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 38. — 1. All Roumanian railway agents employed at Kőtegyán station, and the members of their families residing with them, shall be subject to Hungarian jurisdiction in criminal matters, in respect of any crimes or offences by them committed in Hungarian territory.

* * *

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 33. — 1. The French officials and employees on duty in the joint frontier stations on the right bank of the Rhine shall be subject to the German criminal law and police regulations and to the jurisdiction of the German courts.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 31. —

2. All Roumanian officials employed in the frontier offices at the Kőtegyán station, and the members of their families residing with them, shall be required to observe the criminal laws, police and Customs regulations.

* * *

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 47. — 1. . . . No judicial action shall be taken against railway officials except with the previous consent of the competent head of department.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 33. —

2. Should the German authorities, in the course of proceedings in connection with an offence or crime which comes under the jurisdiction of the German courts, place one of the French officials or

employees on duty in the joint frontier stations under arrest with a view to judicial enquiry, the French authority to which such official or employee is subordinate shall be notified without delay and given all requisite information with regard to the facts or grounds of suspicion on which the charge is based.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 40. — 1. Officials, agents and employees of the French railway and administrative services residing in Spanish territory or entering that territory for reasons connected with their service shall be subject to Spanish laws and Spanish jurisdiction.

2. Nevertheless, for purposes of service and discipline, they shall be exclusively subordinate to the authorities of their own country, except as otherwise provided in this Convention.

3. Should proceedings be taken against one of these officials, agents or employees, the authority to which he is subordinate shall be immediately advised.

4. Simultaneously with the legal proceedings taken against the accused, an administrative enquiry shall be opened, on the termination of which the French Government may order him to be replaced, either on its own initiative or at the request of the Spanish Government, should the circumstances justify such rigorous measure

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 38. —

2. Should the Hungarian authorities find it necessary for the punishment of a crime or offence, to detain, pending trial, any of the persons mentioned in the foregoing paragraph (Roumanian railway officials employed at Kőtegyán station or members of their families residing with them), the Roumanian administration to whose authority the said person is subject shall be immediately notified and duly informed of the facts or presumptions justifying such inculpatory action.

3. The procedure of detention shall be such as will in no way interrupt the operation of the service or affect the safety of the property of the Roumanian administration concerned.

22.

CONVENTION of May 30th, 1927, between Poland and Czechoslovakia for the Regulation of Railway Traffic between the Two Countries.

Article 15. — As regards social insurance in the case of employees permanently or temporarily engaged in the territory of the neighbouring State, only the laws of the State in whose territory the Administration employing such personnel is situated, shall be applicable. Departures from and exceptions to this principle may be determined by an agreement between the supreme administrative authorities of the two States.

The insurer, administrative authorities or courts of the State whose laws are applicable under the preceding paragraph, shall be competent to organise the social insurance referred to in the first paragraph and to settle disputed cases.

Insurance complying with the above provisions, and effected in accordance with the laws of the other State, shall have the same legal validity as regards the employer's civil liability as insurance effected in accordance with the local laws; thus, a neighbouring railway in whose service a foreign railway employee has met with accident shall in this respect be treated on an equality with the national railway. The right of appeal may not, accordingly, be exercised in such cases as between the two neighbouring Administrations.

Article 16. — In the case of sickness and accidents, the same assistance shall be accorded to the personnel of the neighbouring Administration and to members of their families as is extended to the personnel and dependents of the home Administration.

The expenses incurred in this connection shall be reimbursed to the Administration providing the relief by the Administration to which the personnel concerned belongs or, through the latter, by the Health Insurance Fund liable therefore.

Reimbursement as provided for under the second paragraph will only be made upon the certificate of the doctor attending the case to the effect that medical assistance was necessary and was in keeping with the nature of the sickness or injury, and also with the circumstances of the patient.

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of the Conditions attaching to the Crossing of the Frontier and Communications in the Railway Traffic between the Two Countries.

Article 12. —

4. The social insurance of railway officials working temporarily or permanently on frontier sections, and in frontier stations

situated in the territory of the other State, shall be governed by the legislative provisions of the Contracting Party in whose territory the seat of the administration under which such officials come as regards their service, is situated.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways for the Operation of the Section of Line from Modane to the Frontier, and the Joint Use of Modane Station.

Article 24. —

1. The costs of operation (that is to say, of the joint station at Modane) shall comprise :

(1) The gross amount of the wages and subsidiary allowances, as authorised by the pay-sheets, of the whole of the P.L.M. and the State Railways staff (including those absent sick) detailed for service at the joint station at Modane, in application of Articles 13, 14, 15, 16 and 31, but exclusive of the State Railways' representative, train staffs, and the staff of the rolling-stock and locomotive service ¹

24.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 51. — 1. The authorities of the State in whose territory the common station is situated shall afford the officials of the other State the same protection and assistance in the performance of their duty as they afford to the employees of their own State.

2. Officials employed in the offices of the neighbour State on duty in the territory of the State in which the common station is situated, and the members of their family living with the said officials shall be afforded by the State in which the common station is situated the same protection as is afforded by the latter State to its own nationals.

¹ In order to allow for employers' charges, payments into the pensions funds, assistance, various supplies, medical treatment and pharmaceutical supplies, social insurance, etc., . . . the gross amount of the said wages and subsidiary allowances, after deduction of travelling allowances, shall be increased by an aggregate amount of twelve per cent (12%) in respect of the staff belonging to the lines' pensions funds and four per cent (4%) in respect of the staff not belonging to such funds. These aggregate ratios shall be subject to revision under the same conditions as the kilometre train costs.

CONVENTION of April 13th, 1925, between France and Germany
regarding the Organisation of Frontier Stations.

Article 29. — Officials of the two Contracting Parties employed in the frontier stations on the right bank of the Rhine shall lend each other assistance in the performance of their duties, in particular in connection with the prevention and detection of offences.

Article 30. — In order, as occasion requires, to assist proceedings in connection with offences against the French Customs and railway regulations committed on German territory, the competent German authorities on the direct application of the French authorities concerned shall take the depositions of accused persons, witnesses or experts, undertake official verifications, enquiries or searches, and issue notices of summons or sentences.

The expenditure incurred as a result of such official action shall be refunded direct to the German authorities responsible.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation
of the International Station of Canfranc and of the Line
connecting that Station with the French Station of Les
Forges d'Abel.

Article 43. — The officials, agents and employees of the French services and their families shall enjoy constant and complete protection for their persons and property in Spanish territory.

They shall also enjoy all the rights accorded to persons of the same nationality residing in Spain.

Article 44. — In the event of the French services established at Canfranc suspending operations owing to the closing of the frontier or for any other reason, the French officials, agents and employees on duty there shall be provided by the Spanish authorities, free of charge, with safe-conducts enabling them to return freely to France with their families and property.

CONVENTION of July 18th, 1929, regarding the Operation of the
International Stations at La Tour de Carol and Puigcerda
and the Junction Line between these Two Stations.

Article 23. — The officials, agents and employees of the services of the one country, and their families, shall enjoy in the territory of the neighbouring country constant protection in respect of their persons and property.

They shall also enjoy all the rights accorded to persons of the same nationality residing in the neighbouring country.

Article 24. — In the event of the services of the one country established at the international station in the neighbouring country suspending operations owing to the closing of the frontier or for any other reason, the officials, agents and employees attached to such services shall be provided with safe-conducts issued without charge by the authorities of the country in which they are residing, enabling them to return freely to their own country with their families and property.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 16. —

4. Foreign railway employees detailed for service at the frontier station shall there enjoy the same legal protection as the nationals of the State in which the frontier station in question is situate. . . .

Article 30. —

3. Roumanian officials employed at the frontier offices at the Kőtegyán station, and the members of their families residing with them, shall there enjoy the same legal protection as Hungarian nationals.

Article 34. — 1. The Roumanian officials shall be entitled to make use of the staff kitchen and the restaurant at the Kőtegyán station under the same conditions as the Hungarian staff.

* * *

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 31. — The German authorities shall lend assistance to the French officials and employees on duty in the joint frontier stations on the right bank of the Rhine, and treat their requests for assistance as they would treat similar requests from German officials. This shall apply in particular to the case of insults or bodily injuries in so far as German law allows of public prosecution at the request of an injured party.

Should the French offices in the joint frontier stations on the right bank of the Rhine cease work owing to the closing of the frontier or for any other cause, the French officials and employees on duty there shall be entitled to return to France with their families without let or hindrance.

25.

CONVENTION of March 14th-21st, 1891, between Roumania and Austria-Hungary regarding Junction Railway Lines.

Article 19. — . . . The railway employees and officials shall be entitled to carry such arms as form part of their regular equipment.

CONVENTION of May 15th, 1922, between Germany and Poland for the Establishment of a Conventional Regime in Upper Silesia.

Article 495. — 1. The railway and Customs officials employed in the privileged transit traffic shall receive from the authority to which they are subordinate an identity card made out in accordance with the model agreed upon in the Rules of Application. The said card shall take the place of a passport, travel permit or other identity paper.

2. When on duty, they shall wear uniform or a distinctive badge indicating the service to which they belong.

3. The provisions of paragraphs 1 and 2 shall also apply to any post office employees or supervisory officials, called upon, on occasion, to do duty in connection with the privileged transit traffic.

CONVENTION of May 15th, 1922, between Germany and Poland relating to Frontier Railway Stations possessing both German and Polish Customs or Passport Offices, and to the Rights and Duties of Officials of the Privileged Transit and Railway Through Traffic.

Article 26. — Officials and employees in service at frontier railway stations upon foreign territory shall, while on duty, wear uniform or some distinctive badge of office. When off duty, they shall be authorised to wear their uniform only at the place where they are employed or within an area to be agreed upon by the administrative authorities on both sides, and while passing from their place of employment or the agreed area to the State employing them.

Weapons shall only be carried during hours of service, firearms only at night when on guard over goods or cash.

Officials in charge of posts beyond the frontier, shall have authority to wear uniform and carry arms when they visit these posts officially.

The use of weapons shall only be allowed in self-defence.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 45. — The officials of one State serving in the territory of the other State . . . shall be entitled . . . to wear uniform and to carry the arms prescribed by their national regulations. . . .

Article 53. — The State which possesses an office in the territory of the other State may appoint higher officials (inspectors) and officials of the revenue collection office to visit and inspect such offices ; the above officials may carry arms.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 41. —

5. When on duty, the officials, agents and employees of the French railway and administrative services shall wear the distinctive uniforms and insignia prescribed by the regulations of the French administrations to which they are subordinate ; they may carry such arms as form part of their regular equipment, under the same conditions and circumstances as those in which they would carry them on French territory.

CONVENTION of July 18th, 1929, regarding the Operation of the International Stations of La Tour de Carol, Puigcerda and the Junction Line between these Two Stations.

Article 22. —

4. When on duty, the afore-mentioned officials, agents and employees shall wear the distinctive uniforms and badges prescribed by the regulations of the administrations to which they are subordinate ; they may carry such arms as form part of their regulation equipment and under the same conditions and circumstances as those in which they would carry such arms in the territory of their own country.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 31. —

3. All the Roumanian railway officials employed at the frontier offices at the Kôtegyán station are authorised to wear their uniforms

or the badges of the services to which they belong in and about their offices and both on and of duty.

27.

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of the Conditions attaching to the Crossing of the Frontier and Connections in the Railway Traffic between the Two Countries.

Article 14. —

3. When haulage stock (locomotives, rail-motor cars, etc.) . . . have passed in their own countries the tests laid down by the regulations in force there and have been authorised to circulate . . . on public railways . . . these measures shall, as regards the use of such haulage stock . . . on sections of the line situated in the neighbouring State, under the terms of the present Treaty, have the same effect as if they had been taken by administrative departments of the owning State in accordance with the regulations in force in that State.

29.

CONVENTION of January 20th, 1879, between France and Italy regarding the International Stations at Modane and Vintimille.

Article 1. — A station shall be established at Modane-Fourneaux which shall be common to the French and Italian railways and in which shall be installed the Customs, telegraph and postal services of both countries.

The technical services of this station shall be carried out by the staff and under the direction of the French railway company in accordance with the rules to be laid down by agreement between the administration of the French railway and the administration of the Italian railway or, failing agreement between the administrations, by the Governments of the two countries concerned; nevertheless each administration shall maintain at the station of Modane an agent of its own who shall specially represent its commercial interests in relation both to the public and to the other administration. In the case of the French company, such agent may be the stationmaster responsible for the technical services common to the two administrations.

CONVENTION of October 2nd, 1879, between Austria-Hungary and Italy regarding the Railway Junctions in the Vicinity of Cormona, Ala and Pontafel.

Article 11. — The administration operating the section of line concerned shall be entitled to appoint the employees and all the staff of the service responsible for the supervision and upkeep of the sections situated between the frontier and the relay stations, together with the staff required for its own separate services in the international or frontier stations, and also in those which are or may in future be established between the above-mentioned stations and the frontier.

The staff shall as far as possible be recruited from among the natives of the district.

The posts of stationmaster, telegraph operator and cashier may, however, be filled by foreigners.

Any persons whose conduct may give rise to complaint shall be recalled at the request of the competent authorities of the territory.

AGREEMENT of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the International Station of Domodossola and the Exchange of Rolling-Stock.

Article 24. — The Federal Railways shall organise as they think fit and at their own expense offices for their representative and offices relating to their own service in the premises placed at their disposal.

The Federal Railways shall communicate to the State Railways a list of the staff detailed for service in these offices, with particulars of the rank and duties of each agent; they shall also notify any changes as and when they occur.

* * *

AGREEMENT of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the Line from the International Station of Domodossola to the Points at the Northern Entrance of the Station at Iselle.

Article 16. — The station staff and the staff responsible for the inspection and maintenance of the permanent way shall form part of and be subordinate to the administration of the State Railways.

The staff of the train service (locomotive staff and guards) on this line shall form part of and be subordinate to the administration of the Federal Railways.

30.

CONVENTION of December 2nd, 1899, between Switzerland and Italy regarding the Junction of the Swiss Railway System with the Italian System *via* the Simplon, the Name of the International Station and the Operation of the Iselle-Domodossola Section of Line.

Article 10. — In Domodossola station, the locomotive staff and train staff of the Swiss Railways shall comply with the orders of the stationmaster and also with the Italian regulations and rules regarding signalling inside the station.

The stationmasters at Domodossola and the stationmasters at Iselle, Varzo and Preglia shall, for their part, comply with the orders of the administration of the Swiss Railways, which they shall supply with all such information as may be requested of them as regards the train service on the section Domodossola-Iselle. The orders, regulations, traffic reports and other instructions regarding the train service on this section shall be sent directly to the competent agents of the stations, halts and line at the same time as they are communicated to the administration of the Italian Railways.

Should either of the railway administrations have cause to complain of infringements of the regulations or mistakes on the part of agents of the other administration, the latter shall agree to their removal.

CONVENTION of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the International Station of Domodossola and the Exchange of Rolling-Stock.

Article 23. — The State Railways shall communicate to the Federal Railways a list of the staff detailed for duty on the joint service at the international station and particulars of any changes as and when they occur.

Such staff shall comply with the instructions of the Federal Railways in all matters relating to the Federal Railways' service.

The higher officials of the Federal Railways shall be entitled to give orders direct to the stationmaster, but only in matters relating to the Federal Railways' service.

Article 24. — . . . The Federal Railways' staff, including locomotive and train staff, shall be under the authority of the stationmaster or his substitute during such time as they remain in the international station, in all matters relating to the orderly operation of the station and the services outside the offices, premises and plant set aside for the sole use of the Federal Railways, and shall comply with such instructions as it may receive from him.

CONVENTION of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the Line from the International Station of Domodossola to the Points at the Northern Entrance of the Station of Iselle.

Article 12. — The Swiss regulations regarding the running, formation, composition and direction of trains, together with their load and braking, shall be applied on the section Domodossola-Iselle, subject to such modifications as the competent Italian authority shall ask to have made in them with a view to ensuring the safe running of trains and to complying with the law on labour accidents.

The signals of all kinds used on the Federal Railways shall be the only signals employed on this section, up to and including the entrance signal and the exit signal on the Swiss side of Domodossola station.

In all matters relating to train traffic, the Federal Railways may correspond directly with the stationmasters of the section. Such agents shall be required to supply the Federal Railways with all such information as may be requested of them in this connection and to comply with such instructions as may be given them.

The orders, regulations, traffic reports and other instructions regarding the train service on this section shall be sent directly to the competent agents of the stations and line at the same time as they are communicated to the administration of the Italian Railways.

Article 16. — The station staff and the staff responsible for the inspection and upkeep of the permanent way shall form part of and be subordinate to the administration of the State Railways. The train service (locomotive staff and guards) on this line shall form part of and be subordinate to the administration of the Federal Railways.

Nevertheless, during such time as it shall be posted at the stations, the Federal Railways' staff shall comply with the instructions and service orders issued by the stationmasters.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways regarding the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 21. —

3. The P.L.M. Company shall take, in respect of its own staff detailed for duty with the joint service, appropriate disciplinary action in respect of any mistakes or negligence which the administration of the Italian State Railways may think it necessary to bring to its notice.

4. Reciprocally, the administration of the Italian State Railways shall apply to its staff the penalties usual on its own system in respect of any mistakes, infringements of the measures adopted for the orderly operation of the station or negligence of any kind which the P.L.M. Company may think it necessary to bring to its notice. This provision shall apply to all agents of the Italian State Railways on duty in the station, including engine and train staff.

TREATY of October 15th, 1902, for the Construction and Operation of a Line *via* the Mont d'Or connecting Vallorbe with the Swiss Railway System.

Article 14. — The higher officials of the P.L.M. operating service shall issue orders directly to the officials attached to the joint service, but solely in matters relating to the special service maintained for the benefit of their own company.

The Jura-Simplon Company shall apply to its officials such punishments, such suspensions and dismissals as the P.L.M. operating service may think it necessary to request.

Reciprocally the P.L.M. Company shall apply to its staff on duty in the station, including engine and train staff, such punishments, such suspensions and dismissals as the Jura-Simplon Company may think it necessary to request in respect of infringements of the measures adopted with a view to the orderly operation of the station.

CONVENTION of May 15th, 1922, between Germany and Poland for the Establishment of a Conventional Regime in Upper Silesia.

Article 422. — 1. The agents of each administration shall be required, during such time as they may remain on duty on the lines or in the stations of the other administration, to comply with such orders as may be issued in the matter of operation by the competent authorities of the administration responsible for such operation.

CONVENTION of July 17th and August 11th, 1914, between the Administration of the Swiss Federal Railways and the Paris-Lyons-Mediterranean Company regarding the Operation of the Swiss Part of the Line from Pontarlier to Vallorbe and the Exchange of Traffic on that Line at Vallorbe Station.

Article 17. — The stationmaster at Vallorbe shall supply all such information as may be requested of him by the P.L.M. Company in all matters relating to the service on the Pontarlier line. He shall comply with the regulations laid down by the P.L.M. Company in this respect.

In Vallorbe station, the P.L.M. train staff shall comply with the orders and regulations issued by the stationmaster and the Federal Railways respectively.

Should either of the administrations have cause to complain of infringements of regulations or mistakes on the part of agents of the other administration, the latter shall thereupon take such disciplinary action as it may think necessary.

32.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Company and the Italian State Railways for the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 3. — Works additional to the original installations¹ on the section of line from Modane to the frontier shall be carried out by the Italian State Railways, but only after agreement with the P.L.M. Company and approval by the French Minister of Public Works in accordance with the French regulations.

The plans shall be submitted for approval by the P.L.M. Company.

CONVENTION of July 13th, 1908, between Germany and the Netherlands regarding the Railway from Neuenhaus to Coevorden.

Article 5. — Rights of sovereignty and ultimate control over the section of line situated in their respective territories and the operation of the said section shall be vested in each of the two Governments.

¹ Works additional to the original installations shall be held to mean works resulting in the addition of a new feature, the extension of the railway or its equipment.

CONVENTION of March 29th, 1923, for the regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway-Company).

Article 31. — 1. All work for the erection, enlargement, electrification or adaptation of common stations and of the railway tracks between the frontier and the common station shall be decided upon by agreement between the two railway administrations and carried out by the administration on whose line the common station is situated.

2. The above-mentioned work shall be submitted for approval and the execution thereof in respect of the railway service shall be supervised by the administrative authorities of the State in whose territory the station is situated.

33.

TREATY of October 15th, 1902, for the Construction and Operation of a Line *via* the Mont d'Or, connecting with the Swiss System at Vallorbe.

Article 2. — The J. S. Company undertakes to enlarge the present station of Vallorbe in accordance with the scheme, the general plan and estimate for which are annexed to the present treaty and, to operate it as an international station, at which the transfer of the international traffic and the Customs services of the two countries shall be effected.

The J. S. Company also undertakes to construct a second track on the section Dailens-Vallorbe.

Article 3. —

2. The J. S. Company shall carry out the necessary formalities and supply the documents required for the application on behalf of the P.L.M. Company for a concession in Swiss territory. It shall also carry out on behalf of the said company the formalities required for the construction of the section of line in Swiss territory. . . .

Article 27. — The present treaty shall not take effect until after approval by the competent authorities.

RAILWAY CONVENTION of June 30th, 1894, between Bolivia and the Argentine.

Article 3. — The said investigations shall be carried out by joint commissions consisting, as regards the Bolivian section, of two Bolivian engineers and one Argentine engineer, and as regards the

Argentine section, of two Argentine engineers and one Bolivian engineer.

CONVENTION and Additional Protocol, of August 18th, 1904, and March 8th, 1905, between France and Spain regarding the Establishment of Railway Communications across the Central Pyrenees.

Article 7. — The International Commission shall meet whenever either of the Governments shall regard it as necessary, but not less than once each year, in May, for the purpose of verifying the execution of the clauses of the present Convention and considering any other points falling within its terms of reference, and more particularly of ensuring the completion of the three lines by the dates fixed in Article 2 above.

TREATY of November 25th, 1895, between Switzerland and Italy for the Construction and Operation of a Railway *via* the Simplon from Brigue to Domodossola.

Article 7. — Each of the two Governments shall draw up and approve schemes for the construction of the sections of the railway line situated in its own territory and shall supervise the execution thereof.

Nevertheless, as the main tunnel constitutes a single undertaking, the verification and supervision of its execution as regards both the first and second tracks shall be vested in the Swiss Federal Council.

The Italian Government shall, however, be at all times entitled to cause the works on the main tunnel to be inspected by such technical representatives as it may designate with a view to ascertaining that the said works are making satisfactory progress.

34.

TREATY of October 15th, 1902, for the Construction and Operation of a Line *via* the Mont d'Or connecting with the Swiss System at Vallorbe.

Article 1. — The P.L.M. Company undertakes, in agreement with the French and Swiss Governments to construct and operate a double-track line, passing through the Mont d'Or and connecting, without back shunts, the station at Frasne with the station at Vallorbe.

In accordance with the preliminary scheme drawn up in 1899-1900, the line to be constructed shall be approximately 24,115 metres long, of which approximately 1,650 metres shall be in Swiss territory. The minimum radius of the curves shall be 400 metres and the

maximum gradient of 15 mm. shall be reduced to 13 mm. in the main tunnel through the Mont d'Or, which shall be approximately 6,225 metres long, with a single downward gradient in the direction of Switzerland. The highest point of the line shall be at an altitude of 896.15 metres. The frontier will pass in the vicinity of the Swiss end of the tunnel at a distance of approximately 1,895 metres from the centre line of the present passenger station buliding at Vallorbe.

CONVENTION of November 25th, 1895, between Switzerland and Italy for the Construction and Operation of a Railway *via* the Simplon from Brigue to Domodossola.

Article 5. — The main tunnel shall be constructed in accordance with the general plans annexed to the present treaty and to the instruments of concession.

Article 6. — The lines of access to the main tunnel shall be built in accordance with the requirements of an international main line. Plans shall be prepared for two tracks, only one of which shall in the first instance be constructed. Nevertheless, whenever the subsequent broadening of the sub-grade in course of operation would entail unduly heavy expenditure, provision for a double track shall be made from the outset.

The minimum radius of the curves shall be 300 metres, with a maximum gradient of 10% on the north side and 25% on the south side.

36.

CONVENTION of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways for the Operation of the Line from the International Station of Domodossola to the Points at the Northern Entrance of Station at Iselle.

Article 9. — The locomotives, carriages, vans and wagons running between Domodossola and Iselle may be constructed in accordance with the Swiss clearance gauge; the condition of the said rolling-stock shall be such as to comply with the requirements of the Italian laws and regulations.

* * *

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of the Conditions attaching to the Crossing of the Frontier and Connections in the Railway Traffic between the Two Countries.

Article 14. —

3. When haulage stock (locomotives, rail-motor cars, etc.) and their staff (engine drivers, stokers, rail-motor cars drivers, etc.)

have passed in their own countries the tests laid down by the regulations in force there and have been authorised to . . . carry out their duties on public railways, these measures shall, as regards the use of . . . staff on sections of the line situated in the neighbouring State under the terms of the present Treaty, have the same effect as if they had been taken by administrative departments of the owning State in accordance with the regulations in force in that State.

37.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 44. — The supervision of the line between the common railway station and the frontier of the two States shall be under the jurisdiction of the authorities of the State in whose territory the station is situated.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways regarding the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 1. — 1. As regards the operation of the service on the section of line in question, the administration of the Italian State Railways shall comply, in accordance with its responsibility towards the P.L.M. Company, with all the provisions of such general laws and regulations as are or may be in force in respect of the operation of the French railways, and with all such special rules as the French public authorities may see fit to apply to the aforesaid section of line, the P.L.M. Company being responsible for notifying the administration of the Italian State Railways of any such regulations as may become applicable in the future.

38.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways for the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 1. —

2. Nevertheless—subject to the approval of the French public authorities—the regulations of the Italian Railways shall be applied

as regards the circulation and composition of trains, the upkeep and technical inspection of the section of line and the telegraph and telephone services.

3. Use also be made—subject to the same reservation—of the electric and safety signals and appliances of the types employed on the Italian Railways.

Article 4. — 1. The administration of the Italian State Railways shall supervise and keep in good condition the section of line and all its appurtenances.

CONVENTION of April 8th, 1864, between France and Spain regarding the Inspection and Customs Service on the Midi Railway of France and the Northern Railway of Spain.

Article 1. — The railway track between the French station of Hendaye and the Spanish station of Irun shall be declared an international route open to both countries for importation, exportation and transit, provided that between the said frontier stations and the stations of destination or exit the railway lines shall form a continuous whole.

The administrative action of each country shall extend on the track reserved to it up to the foreign station as regards inspection of the international route. The jurisdiction of the courts, however, if their intervention is required by an accident or other occurrence, shall be limited by the frontier between the two countries.

CONVENTION of July 2nd, 1882, between France and Spain to regulate the Inspection and Customs Service on the Tarragona-Barcelona and France Railway and the Midi Railway of France.

Article 1. — The railway track between Cerbère station and the Spanish station of Port-Bou, together with the secondary tracks laid in these stations, of the Spanish type in Cerbère station and of the French type in Port-Bou station, shall be declared an international route open to both countries for importation, exportation and transit, provided that between these frontier stations and the stations of destination or exit the railway lines shall form a continuous whole.

The administrative action of each country shall extend to the international tracks of their respective types, as regards inspection of the international tracks between the frontier stations of both countries. The jurisdiction of the courts, however, if their intervention is required by an accident or other occurrence, shall be limited by the frontier between the two countries.

CONVENTION of July 17th and August 11th, 1914, between the Administration of the Swiss Federal Railways and the Paris-Lyons-Mediterranean Railway Company regarding the Operation of the Swiss Part of the Line from Pontarlier to Vallorbe and the Exchange of Traffic on that Line at Vallorbe Station.

Article 3. — The Swiss Federal Railways shall be responsible . . . for inspection . . . of the line between Vallorbe station and the frontier.

Article 4. — The rules for the composition and circulation of trains in force on the P.L.M. system shall apply between Vallorbe and the frontier.

The various signals used on the P.L.M. system shall be the only signals employed on this section.

40.

CONVENTION of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the Line for the International Station of Domodossola to the Points at the Northern Entrance of the Station at Iselle.

Article 2. — The Swiss Federal Railways shall be responsible for the service (haulage and driving) of trains on the line between Domodossola and Iselle in both directions for account of the Italian State Railways and on the conditions specified hereunder.

The Italian State Railways shall be directly responsible for all service in stations and also for the supervision and upkeep of the track on this section.

Article 3. — The duties on trains to be discharged by the Swiss Federal Railways shall include :

(a) As regards haulage : the supply and upkeep of locomotives, the necessary personnel, the lighting, cleaning and lubrication of engines ;

(b) As regards the driving of trains : the train staff, the mechanical shunting operations at the stations of Preglia, Varzo and Iselle, the supply of articles required for signals, the heating, lighting, cleaning and lubrication of carriages, vans and waggons, the supply of printed matter, etc., and everything connected with the service of trains.

The feed-water needed for locomotives at Domodossola, Varzo and Iselle shall be supplied free to the Swiss Federal Railways by the Italian State Railways.

41.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways for the Operation of the Section of Line between Modane and the Frontier and the Joint Use of Modane Station.

Paragraph II, sub-paragraph 1. — . . . All the personnel jointly employed shall be under the authority of the P.L.M. stationmaster, who shall be the head of the international station of Modane.

Article 21. —

2. The higher officials of the Operating Service of the Italian State Railways shall give the P.L.M. stationmaster any orders which may be sent to him direct or conveyed to him through the representative, but only as regards the operations which the said company has to carry out in the service with Italy.

TREATY of October 15th, 1902, for the Construction and Operation of a Line *via* the Mont d'Or connecting at Vallorbe with the Swiss Railway System.

Article 15. —

3. The signals, shunting and also the entry and exit of trains within the (international) station, carried out under the orders and supervision of the joint personnel (Jura-Simplon), shall be governed by the service regulations and orders in force at Vallorbe station.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 44. — The service in the common railway station shall be under the jurisdiction of the authorities of the State in whose territory the station is situated. . . .

1. CONVENTION of July 15th, 1878, between the Tarragona-Barcelona and France Railway Company and the Midi Railway Company of France for the Operation of the Line connecting Cerbère with Port-Bou.

2. CONVENTION of December 4th, 1863, between the Northern Railway Company of Spain and the Midi Railway Company for the Operation of the Line connecting Irun with Hendaye.

Article 2. — . . . During their stay at Irun (Port-Bou) station, the employees of the Midi Railway Company shall, as regards the safety and the running of trains be under the orders of the

Italian State Railways for their own account and for that of the Swiss Federal Railways. It shall include :

The telegraph service ;

The Customs examination of passengers and the operations necessary for medical and veterinary disinfection ;

Operations connected with the loading, unloading, transshipment and Customs inspection of luggage and, where necessary, there warehousing ;

Operations connected with the loading, unloading and transshipment of money and securities, goods sent by *grande* or *petite vitesse*, vehicles and other articles of international traffic, including the conduct of such operations and the custody of parcels ;

Operations connected with the transport of cattle in international traffic, including disinfection of vehicles ;

Porterage connected with the operations of the Italian and Swiss Customs, with money and securities and with express parcels (goods sent by *grande vitesse* in separate packages) ;

The formation, despatch, acceptance and marshalling of trains in the international service ;

The shunting of locomotives and vehicles ;

Signalling operations ;

The cleaning of goods wagons used in international traffic ;

The supply of water needed by the common service ;

The heating, lighting, cleaning and inspection of the sections of the station assigned for joint use. . . .

Article 19. — Trains proceeding to Italy shall be made up in accordance with the rules and instructions of the Italian State Railways ; those for the Domodossola-Iselle section and beyond in accordance with the rules and instructions of the Swiss Federal Railways.

In the case of international trains, such agreements as may be concluded between the two administrations shall be observed.

In the case of trains on the Domodossola-Iselle section and beyond, the stationmaster of Domodossola shall comply with the orders given him by the Swiss Federal Railways either in writing or through their officials. He shall in turn supply the Swiss Federal Railways or their officials with any information he may be asked for on this subject.

44.

CONVENTION of December 16th, 1908, between France and Switzerland prescribing the Conditions for the Construction and Operation of a Railway between Martigny and Chamonix.

Article 13. — The laws and regulations regarding railway police in France shall apply in operating the section between Vallorcine

and the Swiss frontier. Police duties in trains shall, however, be carried out by the Swiss railway officials, whose reports shall be accepted as authentic in France.

CONVENTION of December 2nd, 1899, between Switzerland and Italy regarding the Junction of the Swiss Railway System with the Italian System *via* the Simplon, the Name of the International Station and the Operation of the Iselle-Domodossola Section of Line.

Article 9. — . . . Police duties on the line and at stations between Iselle and Domodossola shall be carried out by the Italian railway officials, while the police duties on trains shall be discharged by the Swiss railway officials.

TREATY of December 2nd, 1901, between the Swiss Central Railway and the Alsace-Lorraine Railways regarding Basle Station.

Article 4. —

3. The General Management of the Alsace-Lorraine Railways shall also discharge, on the section of line leased to it, railway police duties in accordance with the regulations in force in Switzerland with that object.

45.

CONVENTION of October 2nd, 1879, between Austria-Hungary and Italy regarding the Railway Junctions in the Vicinity of Cormona, Ala and Pontafel.

Article 10. — Railway police duties shall primarily be carried out by the employees of the administration operating the respective sections, but under the supervision of the competent authorities of each of the two countries and in accordance with the rules and regulations in force in each of the two countries.

The Government on whose territory the section is situated shall, nevertheless, take the necessary steps to assist the employees of the administration of the other Government in the discharge of their duties in connection with the supervision and safety of the line.

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of Conditions attaching to the Crossing of the Frontier and Connections in the Railway Traffic between the Two Countries.

Article 14. —

2. The duties of the railway police shall in each territory be carried out by officials of the railway administration working the

section in question, in accordance with the regulations applicable in that territory. The Government of the owning State shall afford the fullest possible measure of support to officials when engaged in the work of supervising and policing the railway.

46.

CONVENTION of December 2nd, 1899, between Switzerland and Italy concerning the Junction of the Swiss Railway System with the Italian System *via* the Simplon, the Name of the International Station and the Operation of the Iselle-Domodossola Section of Line.

Article 8. — The time-tables of trains crossing the Simplon shall as far as possible be prepared and introduced simultaneously with those of other lines, the traffic on which is connected with that of the two railway administrations.

Time-tables of train services between Iselle and Domodossola shall be drawn up by the Swiss Railways and published by them after having been approved by the Italian Ministry of Public Works. The arrival at Domodossola station of trains from Switzerland and their departure for Switzerland shall form the subject of an agreement between the two railway administrations.

ARRANGEMENT of October 30th, 1907, between Belgium and France for regulating the Operation of the Railway from Hazebrouck to the Belgian Frontier.

Article 7. — The time-tables of train services between Hazebrouck station and the frontier shall be drawn up by the administration of the Belgian State Railways, and submitted for approval to the French Ministry of Public Works and Posts and Telegraphs.

The present number of these trains (five daily each way between Hazebrouck and Poperinghe) may not be decreased.

47.

CONVENTION of June 26th, 1876, regulating the Exchange of Passenger and Goods Traffic between Switzerland and France *via* the Frontier Stations of Porrentruy (Switzerland) and Delle (France).

Article 9. — 1. The three contracting companies shall, on each change of winter or summer service, jointly prepare the time-tables of their passenger trains so as to accelerate the connections.

CONVENTION of January 10th, 1905, between Germany and Russia concerning the Junction of the Warsaw-Kalisch Railway with the Prussian Line Skalmierzyce-Ostrowo and Herby-Czenstochow with Lublinitz-Herby.

Article 9. — The time-tables for the service of trains as far as the next station shall be drawn up jointly by the two administrations.

TREATY of October 15th, 1902, for the Construction and Operation of a Line *via* the Mont d'Or connecting at Vallorbe with the Swiss Railway System.

Article 7. — 1. The times at which all trains leave or arrive at Vallorbe shall be fixed by joint agreement in such a way as to give the best possible connections between the two companies' systems. . . .

CONVENTION of July 17th and August 11th, 1914, between the Administration of the Swiss Federal Railways and the Paris-Lyons-Mediterranean Company regarding the Operation of the Swiss Part of the Line from Pontarlier to Vallorbe and the Exchange of Traffic on that Line at Vallorbe Station.

Article 2. —

3. The time-tables of trains on the Pontarlier-Vallorbe line, leaving or arriving at Vallorbe, shall be prepared by agreement between the two Administrations.

CONVENTION of May 15th, 1922, between Germany and Poland establishing a Conventional Regime in Upper Silesia.

Article 397. — The powers of the Higher Committee shall be as follows :

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4. It shall settle the questions of time-tables for the traffic between the two systems if there is a difference on a point of substance between the two administrations. If the administrations disagree as to whether the difference is one of substance, it shall also settle the question.

Article 416. — 1. Each administration shall draw up the time-tables and instructions relating thereto for the lines belonging to its system ; it shall have power to fix them finally in accordance with the instructions of the higher authorities of the State to which it belongs.

2. The time-tables for traffic between one territory and the other and for privileged transit traffic as defined in Article 468, together with the regulations relating thereto, shall be prepared and drawn up in accordance with traffic requirements by the two administrations acting in joint agreement.

Article 479. — 1. The number of trains or parts of trains which shall run daily on the lines specified in Article 469 shall be fixed jointly by the two administrations for the period of each time-table in accordance with traffic requirements.

2. The time-tables shall be drawn up in accordance with Article 416.

48.

CONVENTION of July 27th-August 11th, 1852, between the Swiss Confederation and the Grand-Duchy of Baden with regard to the Extension of the Baden Railways into Swiss Territory.

Article 29. — Passenger tariffs and also warehousing charges on the sections of track passing through Swiss territory shall not be higher than on the whole line between Basle and Waldshut or Constance, wherever the passengers or goods join or leave the Baden Railways.

The railway administration shall communicate the tariffs and time-tables to the Federal Council and the cantonal governments as speedily as possible, so that it may if necessary receive and take account of the observations of the aforesaid authorities.

52.

TREATY of November 20th, 1902, between the German Reich and Austria-Hungary concerning the Establishment of a Railway Connection between Friedeberg-a.-O. and Heinersdorf.

Article 13. — The establishment and approval of time-tables and tariffs shall be reserved for the Government on whose territory the railway administration responsible for operation has its headquarters.

CONVENTION of June 18th, 1909, between France and Switzerland for the Improvement of Means of Access to the Simplon Railway.

Article 11. — The provisions of Swiss legislation concerning the Federal Railway tariffs shall be applied on the line from Geneva-Cornavin to La Plaine (frontier).

The inland and joint tariffs of the P.L.M. system shall, however, be applicable on this line to the international traffic (passenger and goods) coming from or proceeding to France or beyond. For the application of these tariffs, the distance covered on the French line shall be added to the distance covered on the Swiss line and no transfer charges shall be levied at the Franco-Swiss frontier.

Article 16. — The provisions of Swiss legislation concerning the Federal Railway tariffs shall be applied on the sections from Meyrin (frontier) to Geneva-Cornavin and from Geneva-Cornavin to Annemasse (frontier).

The inland and joint tariffs of the P.L.M. system shall, however, be applicable on those sections to transit traffic and international traffic (passenger and goods) coming from or proceeding to France or beyond. For the application of these tariffs the distance covered on the French line shall be added to the distance covered on the Swiss line and no transfer charges shall be levied at the Franco-Swiss frontiers.

* * *

TREATY of December 6th, 1904, between the German Reich and Russia regarding the Establishment of Railway Connection at Skalmierzyce between the Prussian State Railway and the Warsaw-Kalisch Railway.

Article 9. — The time-tables for the running of trains as far as the neighbour station shall be fixed by mutual agreement between the two administrations. The Russian tariff shall be applied to the passenger and goods service in the direction of Germany as far as Skalmierzyce, and the German tariff to the passenger and goods service in the direction of Russia as far as Kalisch or Szczypiorno.

TREATY of December 2nd, 1901, between the Swiss Central Railway and the Alsace-Lorraine Railways regarding Basle Station.

Article 5. — 1. The General management of the Alsace-Lorraine Railways shall apply its own regulations and tariffs to the section of line rented to it, in the case of traffic with Germany and beyond it. . . .

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 13. —

1. The traffic of Canfranc station with France shall be subject to the French internal regulations and to the conditions laid down for the application of the French tariffs.

2. Transport shall be charged for at the rates approved by the French Government for the section in French territory as far as the Spanish frontier. The section between the frontier and the international station of Canfranc shall be charged for at the rates approved by the Spanish Government. . . .

* * *

CONVENTION of April 13th, 1925, between Germany and France regarding the Organisation of Frontier Stations.

Article 11. — The German and French tariffs shall be applicable to the German and French sides of the frontier respectively. Nevertheless, on the Rhine bridges, the French railway tariffs shall be applicable as far as the limits of French ownership.

The local traffic between the joint frontier stations of the right bank of the Rhine and France shall be regulated by means of an associated German-French railway tariff on the following lines :

The consignments in question may be despatched either with a way-bill of the form fixed by the international agreement on railway freights or with a way-bill of the type in use for consignments inside France, whichever the consignor pleases. They shall be subject to the French tariff regulations for the whole of their journey. For this purpose, the French tariff rates shall be increased by an additional charge in French francs for the benefit of the German railway from and to the limits of the French State's ownership on the Rhine bridges. The said charge shall be fixed by the German railway on the basis of the French goods classification, and shall be calculated in such a way as not to exceed the lowest freight permissible under the German normal tariffs for the goods in question on the sections between the joint frontier-stations and the limit of the French State's ownership. In the case of Kehl station, the German charge may not exceed the tariff charge applicable to the same distance between Kehl Harbour and the frontier referred to : but this provision shall not necessarily imply the retention of the reduced rates at present applicable between Kehl Harbour and France.

55.

TREATY of August 1st, 1934, between the Paris-Lyons-Mediterranean Railway Company and the Italian State Railways for the Operation of the Section of Line from Modane to the Frontier and the Joint Use of Modane Station.

Article 31. — 1. Charges for the washing and disinfection of the coaches and wagons shall be fixed in accordance with the French tariffs. . . .

59.

TREATY of June 30th, 1930, between the Republic of Austria and the Kingdom of Hungary for the Regulation of Conditions attaching of the Crossing of the Frontier and Connections in the Railway Traffic between the Two Countries.

Article 8. — In the frontier sections and frontier stations, the service of the railway of the neighbouring State shall be ensured in accordance with the regulations of that railway and the language used shall be that of the said State. Similarly, service telegrams and written communications of the other executive authorities of the two countries which are transmitted through the frontier stations shall be translated and forwarded by the administration running the service into the official language of the neighbouring State.

Correspondence between the frontier stations and the authorities of the neighbouring State shall be in the language of the latter. Service communications relating to railway traffic which affect both administrations shall be accepted by the officials stationed in frontier stations in either of the two languages.

The above-mentioned provisions shall not apply to communications which merely pass through the territory of either State or both of them or to the telegraphic or written correspondence of the higher authorities (Ministries, General Managements, Managements and Local Managements).

Service communications of the railway administrations of the two countries shall be received in the frontier stations by the administration of the neighbouring country, which shall forward them to their destination.

With regard to the naming of frontier stations and the displaying of notices indicating the names of frontier stations, the rules to be applied shall be those of the State on whose territory the stations are situated. The notices displayed in the offices of the agents of the neighbouring State shall be in both languages; that of the State to which these services belong coming first. The frontier stations are required to display in suitable places any notices relating to the railway service and intended for the information of users of the railways, which they may receive from the administration of the neighbouring country (time-tables, etc.).

60.

AGREEMENT of June 1st, 1926, regarding Traffic crossing the German-Netherlands Frontier.

Article 12. —

2. The locomotive staff and the staff in charge of the trains attached to the traffic service must possess the necessary qualifications and in particular have a sufficient knowledge of the foreign

language to be able to make themselves understood and to understand the service regulations. Each administration shall have the right to inspect the trains at any moment. On the foreign lines, the staff must comply with the laws and ordinances in force thereon and must strictly obey the instructions, particularly in regard to the traffic and signalling services, and any other regulations of the administration in question. . . .

4. Each administration shall at once remove from the traffic service, at the request of the other administration, officials who appear to be incompetent or against whom complaints have been made.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 5. —

4. The official language of the country concerned shall be used in official relations both verbal and in writing at the frontier station and on the line between that station and the frontier. The railway officials shall also use their own language in the traffic, telegraph and telephone service with the neighbouring frontier station. . . .

63.

CONVENTION of March 8th, 1923, between the Kingdom of Hungary and the Czechoslovak Republic concerning Common Frontier Railway Stations.

Article 8. — The traffic and telegraph service in respect of the neighbour railway system shall be carried out in accordance with the regulations and in the official language of the country in which the system in question is situated.

Official service railway telegrams between the Parties passing through the common station shall be re-despatched in the official language of the neighbour State. Correspondence from common frontier stations addressed to offices of the neighbour administration shall be made out in the official language of that administration. Official reports with regard to railway traffic which concern both administrations shall be received and despatched by the employees at common frontier stations in the official languages of both States.

* * *

CONVENTION of March 8th, 1923, between the Kingdom of Hungary and the Czechoslovak Republic concerning Common Frontier Railway Stations.

Article 9. — Messages from both Parties connected with the railway service drawn up in the official language of the State from

which they are sent shall always be forwarded through the frontier station in question. The staff of the station shall translate such messages into the official language of the State to which they are addressed and shall then transmit them.

Messages addressed to Ministries or to Directorates (operating administrations) and messages which have to pass through either or both of the States will not be translated.

AGREEMENT of February 12th, 1929, regarding Railway Traffic between the Latvian Republic and the Polish Republic.

Article 8. — Oral and written official communications at the junction station and on the line between the latter and the frontier shall be made in the Latvian language. It shall, however, be permissible to use another language where such is understood by the Latvian officials (see Article 26).

Written and telegraphic official correspondence between the administrations of the Contracting Parties shall be conducted in French.

Executive Regulations. — Written and telegraphic correspondence between the stations and departments of the two Contracting Parties shall be in the official language of the despatching country and shall be handed by one railway to the other. The railway receiving such correspondence shall translate it, when necessary, at the junction station.

The administrations concerned shall jointly prepare bilingual forms to be used for routine and stereotyped communications relating to railway traffic.

Premises at the junction station used exclusively by the neighbouring administration shall be provided with notices in the official languages of the two Contracting Parties, those in the official language of the local administration being placed first.

The junction and frontier stations shall display at appropriate places official time-tables and notices, of material concern to traffic, transmitted by the neighbouring administration in its official language.

Article 26. — The announcement of trains between the signal cabins situated on either side of the frontier and to be designated in the Supplementary Agreement shall be governed by the regulations of the administration operating the train, and shall be made in that administration's language. The same provision shall apply to the written directions and orders communicated to train crews.

Executive Regulation. — Exceptions to the above rule shall be specified in the Supplementary Agreement.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 5. —

3. Remuneration for all services performed by one railway administration exclusively on behalf of the other shall, as far possible, take the form of equivalent services, or, failing this, a cash payment, to be performed or made as the case may be within the time-limit laid down in Article 41, paragraph 1 of the present Convention.

5. The officials of the neighbouring State may communicate with each other in their own language in the territory of the other State, even for official purposes.

7. The two railway administrations may conclude a special agreement to the effect that during a certain transitional period another auxiliary language shall be used in the place of that mentioned in paragraphs 3 and 5 above.

Article 41. — The settlement of claims due in accordance with the present Convention shall be effected on the basis of the invoices which the administrations shall communicate to each other in respect of each quarter. Payment shall be made within two months of the date of receipt of the invoice. The charge to be levied in the event of payment being delayed shall be fixed in the respective agreements.

64.

AGREEMENT of October 30th, 1929, regarding Railway Traffic between the Polish Republic and the Kingdom of Roumania.

Article 8. — Official relations, both verbal and in writing, at the exchange station and on the lines between the said station and the frontier, shall be conducted in the official language of the country (see, however, Article 26).

The officials of the neighbouring State may, however, use their own language among themselves in the territory of the other State, even in their official duties.

Official correspondence in writing and by telegraph between the administrations of the Contracting Parties shall be carried on in French.

Article 26. — The signalling of trains between signal cabins situated on different sides of the frontier, such signal cabins to be specified in the Additional Agreements, shall be carried out in accordance with the regulations of the administration working the said trains and in the official language of the said administration. The same shall apply to the transmission in writing of orders and instructions for train crews.

Executive Regulation. — Exceptions to the above provisions shall be provided for in the Additional Agreements.

CONVENTION of March 27th, 1926, between Germany and Poland concerning Reciprocal Railway Traffic.

Article 8. — Oral and written official communications at the exchange stations and on the section between the latter and the frontier shall be made in the official language of the particular station and section. Exception : see Article 26.

Employees of the same State may, however, even for official purposes, communicate with one another in their own language in the territory of the other State.

Telegraphic and written official correspondence between the administrative offices of the two Contracting Parties shall be in the official language of the sending office.

Regulations of Execution. — The receiving administration shall be responsible for the translation of telegrams and written communications.

Periodical communications relating to railway traffic shall be issued in both languages in a form to be agreed upon between the two railway administrations.

Premises at the exchange station used exclusively by the neighbouring administration shall be provided with bilingual notices in which the official language of the owner-administration shall always be placed first.

The exchange and frontier stations shall display in appropriate places official notices and time-tables concerning the traffic of the frontier-crossing in question transmitted by the neighbouring railway administration in its official language. . . .

Article 26. — The announcement of trains between the signalling-points situated on either side of the frontier and to be designated in the supplementary local agreement shall be governed by the regulations of the administration forwarding the train, and shall be in that administration's language. The same applies to the written directions and orders communicated to the train personnel.

Regulations of Execution. — Exceptions to this rule must be specified in the supplementary local agreements.

65.

CONVENTION of May 30th, 1927, between the Polish Republic and the Czechoslovak Republic for the Regulation of Railway Traffic between the Two Countries.

Article 17. — Each of the railway administrations shall use its own official language in communicating with the other.

Telegraphic and written communications between the two countries on railway matters, drafted in the official language of the State of origin including exchange station correspondence, shall always be translated at the exchange station by the organs of the receiving State into the official language of the latter and forwarded together with the translation. No translation shall be made of telegraphic and written communications for Ministries of Communications and Traffic Directors or managers, nor of communications in another language which are merely passing through the territory of one or both States in transit.

The despatch of trains at the exchange station shall be effected in accordance with the regulations and in the official language of the administration operating the traction service. Exceptions to this rule must be laid down in frontier agreements.

The internal regulations of the State in whose territory the stations concerned are situated shall be applicable in the case of the names of, and notices shown in, exchange stations. Other notices for the information of travellers must be in the official languages of both administrations, the notice in the official language of the local administration being placed first.

Frontier authorities (frontier service posts) of the neighbouring State and the latter's representatives (Article 9) shall also be entitled to display notices in their official language designating their offices in the area of exchange stations, with their national colours and bearing the arms of the State.

Employees of the same State may, in their mutual relations in the territory of the other State, communicate with one another in their own language, even for official purposes.

The Administration of the exchange station shall display in an appropriate place, or in the place habitually used therefor, official notices, time-table posters, etc. supplied to them for that purpose by the neighbouring railway in its official language.

* * *

CONVENTION of April 13th, 1925, between France and Germany
regarding the Organisation of Frontier Stations.

Article 23. — The French offices installed in the joint frontier stations on the right bank of the Rhine shall be indicated by an inscription in both languages, without the addition of any emblem of sovereignty of any kind.

71.

CONVENTION of February 4th, 1927, between the French Eastern Railway Company and the Belgian National Railway Company.

Preamble.

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Hereby set forth the following : . . .

In order to reduce the number of locomotives running light between Ecouvies and Lamorteau, the two contracting administrations consider it preferable to entrust to one of the two systems the traction and running of all trains between the two frontier stations.

* * *

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 9. —

Each administration shall be entitled to run trains as far as the frontier stations belonging to the other administrations : any remuneration due for such services from the administration owning the station shall in principle take the form of equivalent services.

* * *

CONVENTION of February 4th, 1927, between the French Eastern Railway Company and the Belgian National Railway Company.

Article 1. — 1. The French Eastern Railway Company shall be responsible for the traction and running of all passenger and goods trains between the stations of Ecouvies and Lamorteau, for which purpose it shall employ its own rolling-stock and staff. . . .

Article 2. —

4. Should the Eastern Company consider that the condition of the track is unsatisfactory, it shall at once notify the Belgian National Railway Company and demand that the track shall be inspected by officials of the two administrations. The Belgian National Railway Company shall at once remedy any defects discovered in the course of their inspection.

72.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 5. — Each of the two Contracting Parties hereby undertakes, on lines where there are no joint frontier stations, to provide the necessary plant and equipment to cope with the requirements of international railway traffic and in particular the interchange of railway material. . . .

* * *

TREATY of August 22nd, 1929, between the Midi Railway Company and the Northern Railway Company of Spain for the Operation of the Junction Line from La Tour de Carol to Puigcerda.

Article 4. — . . . Should no transfer equipment be available at La Tour de Carol, goods intended for France shall be placed at Puigcerda in French gauge trucks which shall be taken as far as the station of La Tour de Carol by the Midi Company for account of the Northern Company of Spain.

The Northern Company of Spain shall thus transfer goods intended for France, for which service it shall levy a transfer surcharge. . . .

74.

CONVENTION of December 4th, 1863, between the Northern Railway Company of Spain and the Midi Railway Company for the Operation of the Line connecting Irun with Hendaye.

Article 4. —

Each company shall, after deducting overhead expenses, allow the other 6% interest on half the capital cost of the section of the railway between the abutment of the bridge over the Bidassoa situated on its territory and the points at the entry to its station.

The international section of the railway shall then be regarded as consisting of two single-track parallel lines, one, of French gauge, continuing the Midi Railway as far as Irun and the other, of Spanish gauge, continuing the Northern Railway of Spain as far as Hendaye.

Each company shall charge and collect its own rates on the line allotted to it.

Each company shall collect its own receipts and pay its own expenditure for the line allotted to it.

As an exception, and to simplify the upkeep and supervision of the international section of track, the Northern Railway Company of Spain shall be responsible for this service.

The other company shall supply it with the materials for its track and the cost of labour, upkeep and supervision of the two combined tracks shall be shared between the two companies in proportion to the mileage.

* * *

INTERNATIONAL RAILWAY UNION : Commission des décomptes et changes (Accounts and Exchange Committee). Annex VIII to the Minutes of the Meeting of the Committee held in London, June 13th-17th, 1933.

Question 1 (page 4).

Cases of joint operation where the joint expenditure and revenue are divided up on the basis of an apportionment schedule are not frequent and only occur in some sections and in respect of certain expenditure of the German and Czechoslovak railways. . . .

Question 6 (page 5).

These (joint) expenses are, as a rule, allotted in proportion to the mileage run by the trains of the two administrations, with the exception of "empty" or supplementary journeys for which special compensation is usually paid.

The revenue accruing from operation remains the property of the administration which collected it or is shared equally.

76.

CONVENTION of April 20th, 1897, regulating the Circulation of Belgian Trains on French Territory between Vireux-Molhain Station and the Belgian Frontier near Vierves.

Article 1. — The administration of the Belgian State Railways undertakes, on behalf of the Eastern Company, to haul and drive passenger trains between the Belgian frontier near Vierves and Vireux-Molhain station, and goods trains between the same frontier and either Vireux-Molhain or Vireux-Viroin stations.

CONVENTION of April 20th, 1897, regulating the Joint Use of Vireux-Molhain Station by the French Eastern Railway Company and the Administration of the Belgian State Railways.

Article 1. — The Eastern Railway Company shall accept at its station of Vireux-Molhain the trains and engines of the administration of the Belgian State Railways. . . .

Article 5. — The joint expenses of the Vireux-Molhain station shall consist of :

- (1) The rent of the land, buildings, tracks, platforms, permanent plant, yards and outbuildings;
- (2) All operating costs.

The system of joint expenditure shall not apply to the Vireux-Givet and Vireux-Vierves branch lines, which shall be operated by the Eastern Railway Company for its own account.

77.

TREATY of July 27th, 1928, between the Midi Railway Company and the Northern Railway Company of Spain for the Operation of the Section between Canfranc and the Frontier.

Article 3. —

The Northern Railway Company of Spain shall defray the costs involved by accidents of any kind occurring between the French frontier and the last points of Canfranc station on the French side.

If it is proved, however, that the accident is due either to a mistake made by an employee of the Midi Railway Company or to an inherent defect in the rolling-stock of that company, the latter shall be responsible for the consequences.

* * *

CONVENTION of April 4th-May 23rd, 1912, between the Administration of the Swiss Federal Railways and the Paris-Lyons-Mediterranean Railway Company regarding Train Traffic on the Section Geneva-La Plaine and their Admittance to Geneva (Cornavin) Station.

Article 16. — The consequences of accidents to persons or rolling-stock, including any fires which may break out during the circulation of P.L.M. trains between Geneva and the frontier shall be borne by the P.L.M. Company, when the accident is caused by that company's rolling-stock or employees.

They shall be shared equally if there is a doubt, either because the cause of the accident could not be determined or because it was due to simultaneous causes, for only some of which the P.L.M. Company was responsible.

The same rule shall apply if the accident is due to the bad condition of a wagon not owned by either of the two contracting administrations which is running in the trains operated by the P.L.M. Company.

In all other cases not referred to above, and more particularly in cases of accident due to fortuitous circumstances or *force majeure*, the Swiss Federal Railways shall be entirely responsible for the consequences of such accidents.

* * *

CONVENTION of April 20th, 1897, regulating the Circulation of Belgian Trains on French Territory between Vireux-Molhain Station and the Belgian Frontier near Vierves.

Article 5. — In the event of an accident occurring to a Belgian State train between Vireux-Molhain and the frontier . . . the consequences shall be borne in accordance with the following rules :

(a) They shall be borne by the Eastern Railway Company if the accident is due to the construction or upkeep of the track or if the permanent way employees are responsible ;

(b) By the administration owning the rolling-stock or responsible therefor, if it is proved that the accident is due to such rolling stock ;

(c) By the administration of the Belgian State Railways, if the accident is due to a mistake made by the traffic or train employees ;

(d) Equally by both parties, in all other cases or when the causes of the accident are doubtful.

80.

TREATY of December 11th, 1928, between the Administration of the Alsace-Lorraine Railways and the Saar Territory Railways Board for the Operation of the Section between Sarreguemines and the Franco-Saar Frontier, and the Joint Use of Sarreguemines Station.

Article 1. — The section of the Sarreguemines station at Saarbruck included between Sarreguemines station and the Franco-Saar frontier shall be operated by the Saar Territory Railways, which shall collect all receipts accruing under this head by the application of their tariffs between the Franco-Saar frontier and the centre line of the passenger-station premises at Sarreguemines station. . . .

Article 2. — The Alsace-Lorraine Railways shall remain responsible for supervision and for all operations for the upkeep and renewal of tracks, trenches, construction works, barriers, level crossings and supporting walls on the section of the Sarreguemines-Saarbruck line between Sarreguemines station and the end of the bridge over the Saar on the Sarreguemines side. . . .

Article 5. —

As stated in Article 2, the supervision and upkeep of the section shall be carried out by the Alsace-Lorraine Railway Company in return for an annual payment of 58,000 francs. This amount shall include the cost of track-watchmen and keepers of level crossings.

* * *

83.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 8. — 1. Goods trains may cross the frontier at any time by day or by night, including Sundays and statutory holidays, provided that the goods in question are not subject to regulations prohibiting their importation, exportation or transit.

2. The necessary Customs formalities shall be effected at the same time.

3. All goods trains arriving from another country must be notified to the frontier Customs offices in accordance with the Customs regulations and all documents required by the Customs regulations shall be presented at the same time to the said office.

Article 9. — 1. The railways administrations shall notify to the Customs offices in railway stations and to the Customs bureaux (railway Customs offices) the time-tables of all trains crossing the frontier and connecting trains, together with all changes in the above-mentioned time-tables not less than eight days before their coming into force.

2. The railway Customs offices shall also be informed as early as possible of any considerable delays, of the cancelling of trains and of the passage of special trains or light engines.

Article 15. — Passenger trains shall be granted all facilities accorded to goods trains in Article 8 in respect of days and times for crossing the frontier. . . .

Article 43. — The railway administrations shall adhere to the time-tables for connecting trains in such a manner as to ensure that passengers and goods need stay at the frontier station only so long as is necessary for the purposes of the railway services and of the completion of Customs and police formalities.

Article 56. — 1. Persons residing in the neighbourhood of the frontier shall be granted the right of crossing and recrossing the

frontier for the purpose of using the nearest station, subject to the following conditions :

2. Persons who intend to avail themselves of this right will, upon application, receive a "Frontier Card", which will be valid in lieu of a passport, but solely for the purpose of facilitating access to the station mentioned in it.

3. Holders of "Frontier Cards" desiring to use trains departing from the station in question and to travel in the territory of the other State must also be in possession of the documents ordinarily prescribed.

4. The "Card" must contain the photograph, name and particulars of the date of birth, residence and occupation of the holder and a declaration that he is ordinarily domiciled in a place near the frontier.

5. The "Card" will be valid for two years. It will be issued and, if necessary, renewed by the political authorities of the district in which the station is situated, provided the accuracy of the particulars given therein is certified by a declaration to the same effect made by the political authorities of the country of which the applicant is a national.

6. "Cards" will be issued and visaed free of charge.

7. A list of all "Cards" issued and renewed will be communicated to the frontier police offices of both States.

8. "Cards" will not be required for children under 12 years of age accompanied by an adult in possession of a "Card".

9. For purposes of identification and of police and Customs control, holders of "Cards" must produce them at the frontier guard posts and must follow the route prescribed for going to and from the station.

10. Goods and baggage may only be registered or recovered and Customs formalities will only be completed during the hours of daylight. The time-table regulations to be determined and published must be strictly complied with.

11. "Cards" may be suspended or cancelled for reasons of public concern or safety by the issuing authority or by the authority who granted a visa; advice of such action will be sent to the competent authority of the other State.

12. "Frontier Cards" will also be issued upon application by the police or Customs authorities.

13. Persons failing to produce a "Card" will be treated as foreigners secretly entering the territory in question.

14. Persons in possession of "Cards" who are arrested outside the prescribed zone will forfeit their cards and will be liable to the same treatment.

Article 58. — 1. The Contracting Parties agree to take all suitable measures to remove special obstacles hindering regular passenger and goods traffic, more particularly as regards international traffic on the systems belonging to the High Contracting Parties.

2. For this purpose, they undertake more particularly to open large frontier stations as soon as possible for international traffic in respect of passengers, goods, parcels and fully loaded waggons.

3. Further no legal measures shall be put into execution in the territory of one Contracting Party against the property and appurtenances situated in that territory and belonging to a railway of another Contracting Party, more especially against permanent installations or rolling-stock, or against cash balances or credits arising out of the traffic between the two countries.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 1. — The section of the line from Oloron to Zuera between the exit from the last French station, called Les Forges d'Abel, and the entry to the international station of Canfranc at the place called " Los Arañones ", in Spanish territory, shall be regarded as a Customs zone.

French passenger and goods trains shall travel freely on that section by night and by day, on holidays and on working days, subject to observance of the rules agreed upon.

Article 25. — (a) In the case of all trains arriving at the international station of Canfranc with goods for the other State, the railway administrations shall hand over the entry papers habitually presented on the arrival of trains at the stations of Hendaye, Cerbère, Irun and Port-Bou, within three hours of the time when the Customs office of departure shall advise the Customs office of entry that it has completed its formalities.

(b) The railway administrations shall be required to take all necessary precautions to prevent goods, passengers and luggage subject to Customs formalities from entering or leaving the international station except by the passages arranged therefor in the Customs interests of the two States.

(c) If goods or luggage subject to the formalities of either Customs office at the international station of Canfranc are delivered without such formalities having been complied with, the railway administrations shall be responsible within the limits laid down by the laws of each of the two States.

The railway administrations shall be required to make themselves responsible for ensuring that goods deposited in the special premises for a particular destination are not withdrawn from those premises in order to be sent to any other destination without the express consent of the Customs offices concerned.

(d) The railway administrations must take the requirements of the Customs service into account when drawing up their timetables; they shall advise the Customs offices of the two States, in good time, of any ordinary or exceptional change made in the timetable of passenger or goods trains and of the despatch of any special train.

(e) The necessary steps shall be taken jointly by the railway and Customs administrations to ensure that passengers and luggage arriving by a train are sent on by the connecting train shown in the time-table; this shall be compulsory when there is at least one hour's wait between the arrival of the importing train and the departure of the connecting train.

(f) With a view to the prevention of frauds, each Customs administration shall exercise over the railway administration of its nationality, in the matter of the auditing of the books, any rights which have been or may hereafter be conferred upon it by the laws of its country.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 1. — 1. The following railway lines shall be open for reciprocal traffic between the territories of the two contracting parties :

- (a) The Debrecen-Carei Mare line;
- (b) The Püspökladány-Oradea Mare line;
- (c) The Kőtegyán-Oradea Mare line;
- (d) The Békéscsaba-Arad line;
- (e) The Mezöhegyes-Arad line.

2. The railway lines mentioned in the foregoing paragraph shall be regarded as Customs zones and passengers and goods may therefore freely cross the frontier by these lines day or night, including Sundays and holidays.

3. The question as to which of the lines mentioned in paragraph 1 shall be open for the entry and exit of live-stock, raw products of animal origin and all products or articles that might act as vehicles of epizootic diseases, shall be governed solely by the provisions of the Veterinary Arrangement at any time in force between the two

Governments or, if no such arrangement exists, by the municipal regulations of the two States.

4. Each of the two Contracting Parties reserves the right to propose the opening of other lines connecting the territories of the two Contracting Parties, in so far as a regular traffic in passengers and goods sufficiently intense in relation to the operating expenses justifies such a connection.

The other Contracting Party shall not refuse to discuss such a proposal and shall be ready to give it favourable consideration jointly with the proposing Party.

Article 9. — 1. The two Contracting Parties shall arrange for the railway, mails, Customs, police and other services to be so regulated that passengers, luggage, express parcels and goods are transported with the greatest possible speed.

2. At the periodical time-table conferences, the administrations shall take into account the interests of frontier and transit traffic. They shall, in particular, jointly fix the times of departure and arrival and also the train connections at frontier stations, allowance being made also for the requirements of Customs inspection, passport examination, veterinary inspection and postal services.

3. The time-tables and any changes made therein shall be duly communicated to the postal, Customs, police and veterinary authorities.

84.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 32. — 1. The French and Spanish postal administrations shall be entitled to incorporate in international trains, subject to the conditions in force in each of the two countries, mail-vans for postal traffic, with the necessary staff.

2. The exchange of mail-bags shall be effected at the station of Canfranc by transfer.

3. So far as may be compatible with the requirements of the operation of the railway and the general arrangements of the station, the railway administrations shall, as far as possible, facilitate the transfer of mail-bags and postal packets from one train to another.

4. Official correspondence between the French administrations and their services at Canfranc station may be handed in direct to the French offices or the French mail-vans arriving at that station or leaving it.

6. The officials of the Customs administrations shall supervise the unloading and loading of mail-bags and postal packets, and shall accompany them from the arrival van to the departure van, but may not open or examine them.

7. If there is reason to suspect breaches of the Customs laws and regulations, the above-mentioned officials must accompany the boxes, bags and packages containing correspondence to the post offices, so as to be present when they are opened by the post-office staff, which alone is entitled to open them.

Article 34. — 1. The telegraph and telephone services shall be governed by the international or national regulations concerning them.

2. The railway administrations may, on the lines operated by them, use the telegraph and telephone free of charge for their service requirements. The French railway administration may also, on the lines operated by it, use the telegraph and telephone for transmitting and receiving official communications for the French services at Canfranc station, without paying any fee to the Spanish Government. . . .

85.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 17. — Passengers' registered and hand baggage shall, in principle, be examined by the Customs authorities at the frontier Customs office. Facilities will, however, be granted in accordance with the exigencies of passenger traffic. More especially, every endeavour will be made to take the necessary measures for the examination of registered baggage at the Customs office in the place of destination, the possibility of effecting the examination of baggage on departure from a country at the Customs offices in the place of departure not being excluded. The Customs administration shall, moreover, as far as possible, issue instructions for the examination in the train of baggage belonging to passengers travelling in through-carriages.

Article 20. — The examination of the passports of passengers travelling in through trains or through carriages shall be effected in the train concurrently with the Customs examination.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and the Line Connecting that Station with the French Station of Les Forges d'Abel.

Article 2. — 1. The international station of Canfranc shall be provided with the necessary plant for the services of the two nations from the point of view both of the railway and of the other administrations concerned.

2. This plant shall conform to the provisions of the scheme drawn up by common agreement by the two Governments. . . .

Article 20. — The two Customs administrations shall extend the powers of the offices at the international station of Canfranc to all formalities connected with Customs clearance on entry or exit to which traffic requirements may give rise.

They shall, in particular, ensure that the powers agree as far as possible, and that the clearance formalities carried out by the two Customs offices are effected successively without loss of time.

The Customs administrations shall endeavour to accelerate the Customs inspection of goods as much as possible, so as to reduce to a minimum the period during which rolling-stock is held up and premises occupied.

Except in cases where there is suspicion of malpractice, goods for international transit shall be released immediately.

Article 28. — 1. The official at the head of the French police may delegate officers to Canfranc whenever he thinks fit (or even permanently), or may proceed thither himself, with a view to the performance of any mission with which his Government may entrust him with the knowledge of the Spanish Government. . . .

Article 31. — The French Government reserves the right to organise an immigration or labour service at its own expense, permanently or temporarily, at Canfranc station. . . .

Article 35. — 1. The French sanitary service shall have jurisdiction over passengers, luggage and goods leaving for France, both in the station premises and in the coaches and waggons, from the time when the French Customs formalities are finished.

2. Subject to this reservation, the Spanish sanitary service shall have general jurisdiction, in the international station of Canfranc, in the matter of the protection of public health, both over persons and goods and over the premises, dwellings, warehouses, etc.

3. The French officials of the services of the international station of Canfranc and their families may be assisted and attended by the French medical staff and receive medicaments, sanitary appliances, etc., from France.

4. Formalities connected with sanitary inspections ordered by either State in the event of an epidemic shall be carried out in the premises designed for the purpose in the international station and its dependencies. . . .

Article 37. — Each of the two countries shall lay down its own rules for the medical examination of immigrants for which the premises and plant referred to in Article 35 may be used by agreement.

Article 38. — 1. The sanitary operations of the veterinary police at the frontier, applicable to live-stock, meat and animal products transported from France to Spain or from Spain to France by the line from Oloron to Zuera and from Zuera to Les Forges d'Abel (first French station), shall be effected on the platforms and in the buildings assigned to that purpose in the international station of Canfranc, which is common to both nations. . . .

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 22. — *Joint Frontier Station.* — On the line between Kőtegyán and Oradea Mare the railway administrations and authorities of both States shall effect all frontier services in the joint frontier station at Kőtegyán situated in Hungarian territory.

Article 26. — 1. Trains shall not be despatched until Customs and police inspection by the respective officials of the two States has been completed, unless such inspection is carried out by the officials of either State on the train itself in the course of the journey. The Customs and police officials of both States shall be required to carry out their inspection as far as possible simultaneously and as rapidly as is compatible with the safeguarding of the interests for which they are responsible.

2. Nevertheless, the Customs clearance of commercial goods which passengers are taking with them shall not be used as a pretext for exceeding the period during which trains normally remain in the station. Any goods which cannot be cleared through the Customs while the train remains in the joint frontier station shall be detained there and not re-despatched until after clearance through the Customs.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 17. — The French and German Customs authorities shall give their respective offices in the joint frontier station on the

right bank of the Rhine all the powers found necessary in view of traffic requirements for the purposes of import and export clearing. In particular, they shall take steps to ensure that such powers are so far as possible identical, and that the clearing operations of the two Customs offices follow immediately upon one another. The Customs formalities to which passengers and their baggage are liable shall take place on the departure and arrival of the trains.

36.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 32. — 1. The railway administrations shall be obliged to construct and maintain the necessary equipment for the services of both administrations, as also such buildings as are required in common stations for the combined offices, the housing of employees and installation of the financial services and police officials and, in addition, for all public services, more especially the sanitary and veterinary services. The conditions governing, and the limits of, these obligations and the terms for supplying furniture for the offices and providing for the upkeep, lighting, heating and cleaning of the premises in question and, where necessary, for finding housing accommodation for employees shall be determined by the Government departments of the interested parties.

2. The State on whose territory the combined offices are situated will take the necessary steps to ensure that the obligations incumbent upon the railway administrations by virtue of this article are duly carried out by them.

3. The Governments concerned will by common agreement determine what proportion of the amount due as compensation to the railway administrations for the execution of the said obligations, and also of those mentioned in the preceding article, is to be borne by each State.

Article 33. — The choice of premises for Customs offices in common stations and for the combined services of the respective Customs authorities, and the sanitary and veterinary police, will be determined by negotiations to be conducted in accordance with the foregoing stipulations between the railway administrations, which must also obtain the assent of the Customs administrations of the States concerned.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 3. — Each of the two States shall ensure the supply of furnishings, accessories and equipment necessary for the services carried out by the agents of its railway and other administrations.

The furnishings, accessories and equipment needed by the common services for the working of the section from Canfranc to the frontier and of the station of Canfranc shall be supplied by the Spanish State.

Article 4. — In order to make good the shortage of housing accommodation in the premises of the international station and of the traction service and in the neighbourhood of the international station, the Spanish Government has had a number of buildings erected called the " pueblo ".

The Spanish Government shall place at the disposal of the French State, for its various railway and administrative services, any premises which may be needed by the latter for housing those agents whom it has not been possible to house either in the main passengers' building or in the building used for traction.

The Spanish Government shall receive a rent to be calculated on the basis of the actual initial expenditure on the buildings actually occupied by the French agents, at a rate of simple interest equal to the rate at which the 4% Foreign Stock is quoted in Madrid on the day on which the international station of Canfranc is opened to traffic.

As the work has been carried out during periods when the rate of the peseta has varied, the initial expenditure shall be reduced to a common monetary unit, and the amount of the rent shall be established on the basis of that unit, in accordance with the provisions of the present paragraph.

In addition, a sum shall also be paid equal to 15% of that specified in the preceding paragraph, in order to take account of the normal charges incurred by the Spanish Government in its capacity of owner of the said buildings, and in particular the supply of power for lighting the staircases and corridors. On payment of the rent by the French Government, the French railway and administrative services shall be exempt from all national or local taxes.

The rent thus calculated shall cover :

(1) Free supply of drinking-water and water for other purposes ;

(2) The right of the French agents to use the common buildings of the pueblo, such as the chapel, school, hospital, etc., on the same footing as the Spanish agents ;

(3) The use of all common plant such as roads, gardens and public lighting, plant for the draining-off of rain-water and sullage-water, etc. ;

(4) The enjoyment of all public safety and health services (police, fire, sweeping and scavenging, watering, etc.).

The rent shall not include repairs to premises which, in accordance with the laws and regulations and customs in force in Spain, are, or may hereafter be, a charge upon the tenants.

Nor shall it include the cost of electric power for the use of agents, which shall be supplied by the Spanish Government or the public service acting for the Government at rates to be fixed by common agreement with the French Government, the Spanish Government being responsible for establishing the external and internal distribution systems at its own expense and keeping them in good order.

If, for any reason, the number of French agents at Canfranc station should subsequently be increased, the Spanish Government shall provide such agents with all the necessary housing accomodation and the above rules shall apply to the rent charged therefor.

Article 9. — The cost of upkeep of internal fittings, lighting, heating and cleaning of plant and premises of the administrative services and all the working expenses of those services shall be paid by the administrations responsible for them, account being taken of agreements concluded or hereafter to be concluded on this subject between those services and the railway administrations of each of the two States.

Officials and agents housed in the principal station building shall be responsible for the cost of repairs to the buildings which they occupy and the heating and lighting of their apartments.

The Spanish railway administration shall be required to arrange for the heating, lighting and cleaning of the stairs and corridors giving access to those dwellings, and the cost of those services shall be divided by it between the French and Spanish railway and administrative services in proportion to the area of the accommodation occupied ; in consequence of this division, a balance shall be periodically struck, which, after verification, shall serve as a basis for the reimbursement to be made to the Spanish railway administration by each of the railway administrative services, which shall, at their discretion, distribute such expenditure among those of their agents who are concerned.

Article 35. —

4. Formalities connected with sanitary inspections ordered by either State in the event of an epidemic shall be carried out in the premises designed for the purpose in the international station and its dependencies.

5. Those premises and plant shall be common to the sanitary services of the two countries. The cost of upkeep, cleaning, lighting and heating shall be borne equally by the two States.

6. Notwithstanding this common use of premises and plant, each country shall organise its service with its own staff and according to its own sanitary regulations.

7. Nevertheless, an agreement may be concluded for the common use of all or part of the services of the managing or executive staff, in which case the agreement concluded shall determine the conditions for the sharing of the expenditure incurred in respect of such staff between the two States.

8. If it is necessary to use the common sanitary premises and plant simultaneously for the requirements of both countries, the officials in charge of those services shall come to an agreement as to the sharing of those premises and plant and of the hours during which they are to be used in such a way as to minimise inconvenience to either party, ensure the most rapid possible operation of the service and avoid delays in the train-service.

9. The expenditure incurred for disinfection and for the functioning of apparatus shall be borne by the importing State.

10. The French sanitary services may ask the Spanish Government for permission to set up at their own expense any additional plant which may subsequently be thought necessary.

Article 36. — An infirmary shall be set aside, for possible cases involving danger to health, to receive and isolate, temporarily, passengers whom either of the two doctors, acting within the limits of his powers, shall find to be suffering from or suspected to be suffering from an epidemic infectious disease, and whom he shall deem it necessary to detain; isolated passengers shall be attended by the staff of the country whose doctor has prescribed their isolation.

The expenditure incurred for the isolation in the infirmary of passengers who are sick or suspected of being sick, when such isolation has been temporarily ordered subject to the conditions laid down in the first paragraph of the present article, shall be a charge upon the State whose doctor has ordered these steps in the interests of his own country.

Article 38. —

2. Either of the Contracting Governments may appoint, at its expense, in that station one or more veterinary officials entrusted with the arrangements for this service in accordance with the laws and provisions governing the matter in the country to which they belong.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 23. — The adaptation and installation of the joint frontier station in the manner deemed to be necessary by the two administrations—including the buildings intended for the use of the Customs and police services of the two Contracting Parties—shall be carried out by the administration of the Hungarian State Railways at its own cost. The installations effected for this purpose shall remain the property of the said administration. The interest on the cost of installations exclusively intended for the use of the administration of the Roumanian Railways or the Roumanian Customs and police authorities shall be refunded by the Roumanian Railway administration. The interest on the cost of installations intended for joint use shall be borne by the two railway administrations in accordance with a schedule fixing the amounts payable in each individual case according to the extent to which such installations are actually used.

The rate of the aforesaid interest, together with the schedule for the division of the interest on joint expenditure, shall be dealt with in the special Arrangement regarding the joint use of the joint frontier station.

The administration of the Hungarian State Railways shall be responsible for placing the necessary premises at the disposal of the services of the respective administrations and authorities of both States. As regards the cleaning, heating and lighting of such premises and the division of the expenditure resulting therefrom, the two railway administrations shall deal with such matters in the special Arrangement regarding the joint use of the frontier station.

The administration of the Hungarian State Railways shall do everything in its power to assist the Roumanian officials of all categories permanently employed at the joint frontier station in finding suitable housing accomodation in the neighbourhood of the aforementioned frontier station.

Article 40. — Should the Roumanian Government decide to discontinue the joint use of the Kőtegyán station, it shall be required to compensate the Hungarian Government for all installations, such as new tracks, constructions and buildings or all other works of adaptation intended to meet the requirements either of the joint service or for the exclusive use of the Roumanian State in so far as such extensions are carried out after the conclusion of the present Convention. Compensation shall be calculated on the basis of the amortisation in ten years of the expenditure incurred, no allowance being made for interest.

No compensation may be claimed in respect of installations and buildings already in existence at the Kőtegyán station at the time of the conclusion of the present Convention.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 6. — 1. The German Government hereby undertakes to take all necessary measures to enable the French offices in the frontier stations on the right bank of the Rhine to carry out their duties regularly and, in particular, to provide these stations with all necessary movable and immovable equipment for the purpose.

2. In particular, the French Railway administration shall be enabled :

(a) To carry on all official business arising for the French authorities in connection with the operation of the international transit traffic, and in particular, the interchange of rolling-stock and the recording of the same, the taking and handing over of goods and official papers, and Customs inspections by the French Customs officials ; . . .

Article 7. — The construction of the joint frontier stations on the right bank of the Rhine and such changes as may have to be made in their equipment shall be carried out in accordance with plans to be drawn up in agreement with the French Railway administration.

Article 12. — The rent of the plant and buildings for the French or joint German-French operation of traffic in the joint frontier stations on the right bank of the Rhine shall be calculated on the basis of the costs of construction. The amount of such rent shall be fixed in gold marks in the relation to the actual capital expenditure incurred and the current rates of interest by direct agreement between the two railway administrations.

The costs of operation, upkeep and renewal of the joint frontier stations shall be borne jointly where they are in connection with both the German and French services, and by the French service where they are in connection with the French service alone and are expressly excluded from the joint account.

Should the two railway administrations be unable to agree as to the calculation of the rent or the distribution of the costs for joint account, they shall request the President of the International Railway Union to appoint an expert to decide between them : in the event of the President of the International Railway Union being a German or a Frenchman, the President of the Central Office for International Transports at Berne shall be requested to appoint the expert.

87.

CONVENTION of May 15th, 1922, between Germany and Poland relating to Frontier Railway Stations possessing both German and Polish Customs or Passport Offices, and to the Rights and Duties of Officials of the Privileged Transit and Railway Through Traffic.

Article 11. — Posts of both Parties beyond the frontier are entitled to display on their official premises the coat of arms of their own State.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 42. — The national arms and relevant inscriptions shall be affixed to the offices of the neighbouring State established in the territory of the State in which the common station is situated.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 27. —

2. The Roumanian frontier offices at the Kőtegyán station shall be authorised to use for their notices indicators in the Roumanian language, together with the arms of the Kingdom of Roumania.

88.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 40. — 1. Supplies required in the common station situated in one State for the railway services, and furniture, stationery, registers and other supplies of all kinds necessary for the use of the railway, Customs, police, sanitary or veterinary offices of the other State, shall be specified in a list and imported free of all import duties, in conformity with such regulations as may be drawn up by the two Governments.

2. Spare parts and materials required for the repair of rolling-stock which has crossed the frontier shall be transported beyond the frontier free of duty. Such spare parts and materials will be accompanied by a list giving full particulars.

Article 41. — 1. The Government on whose territory the common station is situated shall not require the railway administration of the other State to pay stamp duties or other revenue charges on the books, passenger tickets or other documents relating to the railway services in respect of the work carried on in the station or on the line between the station and the frontier.

2. Nevertheless, civil documents, contracts and other judicial papers drawn up by the said railway administration shall not be exempted from such duties and charges. The said documents, contracts and papers shall accordingly be liable to stamp duties and to the other charges prescribed by the laws in force.

Article 54. — Correspondence addressed to an administrative authority in any of the common stations shall be exempted from all Customs formalities.

Article 55. — 1. The administrations of the various public services appointed by the Government of either State to serve in the common station situated in the territory of the other State shall be entitled to despatch and receive official telegrams by the railway telegraph lines under the same conditions as Government telegrams, without applying to the State telegraph offices.

2. All other Government and private telegrams for transmission from one country to another must be sent from the common station to the public office of the State in which the station is situated. The latter office is the only office competent to transmit such telegrams by the public telegraph lines to an office belonging to the other Contracting Party. This provision shall not apply to official railway telegrams.

3. The telegrams mentioned in the first paragraph and official telegrams will not be entered in the international accounts.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 23. — Subject to the customary verification, no obstacle shall be placed in the way of the importation into Spain or the re-exportation from Spain of articles, objects or materials which come or have come from France for the needs of the French railway and administrative services at Canfranc station and on the part of the line from Oloron to Zuera between the frontier and Canfranc station.

Such importation or re-exportation shall be effected free of all Customs duties and other charges.

Article 32. —

5. Mail-bags and correspondence exchanged by the postal administrations shall be exempt from every kind of Customs formality. . . :

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania, regarding the Organisation of Frontier Stations.

Article 11. — The service correspondence of both frontier stations shall be carried free of charge under delivery and acceptance sheets.

Article 30. — 1. The Hungarian Government shall take steps to ensure that the Roumanian officials employed in the frontier offices at the Kőtegyán station are able freely to perform their duties in accordance with the laws and regulations of their own country; no obstacle shall be placed in the way of the transmission of sums of money and official correspondence. The Hungarian Government further guarantees the security of the official documents and valuables of the above-mentioned Roumanian offices. . . .

Article 34. —

3. On the production of a certificate issued by the head of the Roumanian office concerned, the Hungarian Customs authorities shall allow the importation and exportation, free of all duties and taxes :

(a) Of all implements and objects for the installation and subsequent operation of the Roumanian frontier offices at the Kőtegyán station;

(d) Of the uniforms and service equipment received by such officials from their own country.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 27. — Official correspondence between the French administrations and their officials in the frontier stations on the right bank of the Rhine may be sent or received direct by French railway postal cars or by officials (guards, etc.) in charge of mails proceeding to such stations.

Article 28. — The French offices shall be entitled to use the railway telegraph and railway telephone systems in the joint frontier stations, on the right bank of the Rhine for their official communications, whether *en clair* or in cypher, free of charge. No use shall be made thereof for private communications with France other

than such as would be allowed exceptionally under the regulations in force on the French and German railway telegraph and railway telephone systems.

Immediately after the signature of this Agreement, the French and German postal administrations shall concert together with a view to an agreement as to the establishment, if found desirable, of special telephone rates to meet the requirements of local traffic and international through transit traffic.

Article 32. — Subject to the customary inspection, all objects from France for the use of the French offices in the joint frontier stations on the right bank of the Rhine may be imported into Germany, or exported from Germany, free of duty or tax and without let or hindrance of any kind.

89.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 44. — 1. The service in the common railway station and the supervision of the line between such station and the frontier of the two States shall be under the jurisdiction of the authorities of the State in whose territory the station is situated.

2. For this purpose, the Customs officials and officials of the revenue collection office of the said State shall be authorised :

(a) To have access to the premises placed at the disposal of the authorities of the other State for the purpose of such official inspections as they may deem necessary ;

(b) To examine bonded goods ;

(c) To ask permission to inspect the relevant registers and documents ;

(d) They shall further assist the railway officials in the performance of the duties connected with the common service.

3. The Customs administration of each of the High Contracting Parties shall be competent to inspect goods and to perform all other formalities at the frontier offices in cases where there are good grounds for suspecting attempts to commit fraud or to smuggle goods.

4. If inspections are to be conducted on the premises placed at the disposal of the other State, they must invariably be carried out in the presence of an employee of the latter State and of the competent department possessing powers of control.

Article 48. — 1. Customs officials of either State employed in joint offices shall be authorised to be present when Customs formalities are carried out by the officials employed in the office of the other State and at the loading of goods in waggons on departure.

2. The higher Customs officials of one State may examine and take copies of and extracts from all Customs registers in the offices of the other State.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 15. — The French and Spanish Customs regulations shall be simultaneously in force on the section of track between the frontier and the international station of Canfranc and in that station itself, it being understood that the French Customs administration may exercise, both on that section of track and in the station, such control and supervision as may be necessary to protect its interests.

Article 18. — Each of the Customs administrations shall exercise supervision over warehouses, dépôts or stores for goods coming under its regulations, the details of application of which shall be determined by it alone.

When the goods are under the simultaneous supervision of both administrations, that of the exporting country shall alone be deemed the responsible depository for fiscal purposes.

The higher Customs officials of each country at Canfranc station, or their representatives, chosen from among the employees of the highest rank, shall have the right of access to the warehouses, dépôts or stores of that country in the presence of an official of the latter, who shall, when possible, be of equal rank.

The exercise of supervision by the Customs administrations shall in no way relieve the railway administrations of their responsibility towards the owners or consignees in respect of the safekeeping of goods.

Article 24. — The Customs offices of the two States shall jointly carry out formalities of verification or any measures to be taken with a view to establishing the identity of goods temporarily imported or exported from one country to the other.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 13. — The German and French Customs regulations shall be simultaneously in force in the joint frontier stations on the

right bank of the Rhine and on the sections of line between the said stations and the national frontiers, so far as passenger traffic and the import and export of goods are concerned. It is agreed that the French Customs authorities may exercise the control and supervision required for the protection of their interests both inside the stations and on the sections of line in question. . . .

Article 19. — The higher German Customs officials and the local German Customs receivers shall have access to the French warehouses and silos in the joint frontier stations on the right bank of the Rhine in order to ascertain whether they contain goods which have escaped German export control. They shall not be entitled to make such visits of inspection except at reasonable intervals or whenever there are grounds for suspecting evasion of Customs, and they shall be accompanied by a French Customs official. Similarly, the higher French Customs officials and the local French Customs receivers shall have access to German warehouses and silos accompanied by a German Customs official at regular intervals or whenever there are grounds for suspecting evasion of Customs, in order to ascertain whether they contain goods imported from France and still under German Customs supervision, which have escaped French control and are still subject to the French Customs regulations in accordance with Article 14, paragraph 1, number 2.

Article 26. — In the joint frontier stations on the right bank of the Rhine, the French officials shall be entitled to maintain order on the premises assigned to them for their exclusive use and to expel disorderly persons from such premises.

German officials shall be entitled, if occasion arises in connection with the performance of their duties, to enter the premises reserved to the French offices at any time during the service hours of the latter on giving proof of their official capacity. The special provisions of Article 19 of this Convention shall not be affected by this paragraph.

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INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 16. —

4. The two services shall operate successively, the Customs of the country of departure carrying out their inspection first.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 37. — 1. Travellers and their luggage and goods passing in transit through the joint frontier station shall be there subject to inspection by the Customs and police officials of both States.

2. In the joint frontier station, the legal provisions in force in each of the two States shall be applied with regard to the treatment of travellers and their luggage and also of goods when crossing the frontier; this shall be done in such a way that inspection by the Customs and police officials of the State which the said persons or goods are leaving precedes inspection by the Customs and police officials of the State which they are about to enter.

3. When carrying out the Customs and police inspection in Kőtegyán station, the agents of the Roumanian authorities shall be authorised to proceed to all the official acts required by all such provisions in force in Roumania as are mentioned in paragraph 1, in the same manner, within the same limits and with the same consequences as in their own country.

90.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 45. — 1. The officials of one State serving in the territory of the other State shall be authorised to perform their duties according to the customs and regulations in force in the State to which they belong.

2. They shall accordingly be entitled . . . in the cases stipulated by the law of their own country, to seize goods in respect of which an offence has been committed. . . .

Article 46. — The officials of the two States shall, in common stations, apply the laws of their own country in matters affecting the Customs and in cases of contravention.

The line between the common station and the frontier shall for all purposes be considered as under Customs control and in respect of contraventions as an extension of the common stations.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 16. — The French regulations shall apply :

(1) On importation into France : for goods, from the moment when they have been declared at the French Customs or from the moment when an attempt is made to evade the French Customs ; for passengers, from the moment when the French Customs inspection begins, or from the moment when a passenger endeavours to evade such inspection ;

(2) On exportation from France : for goods, up to the moment when their leaving French territory is established ; and for passengers up to the moment when the Customs inspection is finished ;

(3) In the case of passengers, the inspection on departure shall as far as possible, be held in the Custom house of the importing country, in conformity with regulations to be drawn up jointly by the heads of the two Customs services at Canfranc station ;

(4) The two services shall operate successively, the Customs of the country of departure carrying out their inspection first ;

(5) Goods which have come from France and are sent back to France before the French Customs regulations have ceased to be applicable to them shall not be liable to any Spanish import or export duty or subject to any Spanish prohibition relating to their entering or leaving the country ;

(6) When the application of the Customs laws of the two parties necessitates the detention or seizure of goods, priority shall be accorded to the Customs authority of the exporting country, which must, however, allow the importing country to exercise its rights.

Article 17. — The provisions relating to export, import or transit prohibitions and restrictions, to the collecting of all taxes and indirect charges and to the statistics of the movement of goods the application of which, in virtue of French legislation, is, or may hereafter be, entrusted to the Customs authorities shall be assimilated, in respect of their application in the international station of Canfranc, to the Customs regulations properly so called. . . .

Article 22. — 1. Within the precincts of Canfranc station and of the section of track between the French frontier and that station, the Customs administrations of the two countries shall have the right to enquire into any infringement involving a breach of the regulations, Customs or other, which it may be their duty to enforce, subject to the conditions laid down in the present Convention.

2. They may establish such infringements according to the provisions of their respective laws, and bring them before their courts.

3. The French administration may detain as security, or if necessary confiscate, any article in connection with which such infringements occur. It shall also have the right either to send to France the articles detained as security or confiscated and seized in Spanish territory, or to cause them to be sold on the spot subject to the conditions laid down in the French regulations, unless they have already been confiscated by the Spanish Customs service.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 14. — The French Customs regulations shall be applicable in the joint frontier station on the right bank of the Rhine :

(1) In the case of entry into France, to goods from the moment they are declared to the French Customs authorities or from the moment an attempt is made to evade French Customs control, and to passengers from the moment the French Customs inspection begins or from the moment a traveller endeavours to evade such inspection ;

(2) In the case of exit from France, to goods down to the moment their export is recorded and to passengers down to the moment of the completion of the Customs inspection ; furthermore, the French Customs regulations may be applied to goods or passengers who have not been subjected to the French Customs inspection until such time as the German Customs inspection in the station is completed.

Infringements of the French Customs regulations shall be ascertained by the French Customs authorities under the same conditions of time and place.

The Customs officials of each State shall only apply the regulations of the State to which they belong.

In the frontier stations on the right bank of the Rhine, goods coming from France which are returned to France before the French Customs regulations have ceased to be applicable to them shall not be subject to any German impost on imports or exports or to any German import or export prohibition.

Where in a frontier station on the right bank of the Rhine the application of the Customs legislation of both States involves the retention or confiscation of goods, the Customs authority of the exporting country shall have a prior claim.

Should the German Customs authority consider the examination of goods which are already subject to the supervision of the French Customs authority to be necessary before their export from Germany, the French Customs authority shall place them at its disposal for the purpose. On the other hand, the French Customs authority

shall be entitled to demand the placing at its disposal of goods which have passed out of its control, if the said goods are still at the frontier station in the custody of the German Customs authority.

If the exporting State finds that the goods ought to be confiscated, the importing State must surrender them to the exporting State.

Article 15. — 1. Subject to the conditions laid down in Article 14, the French Customs authority shall be entitled to conduct an enquiry into any infringement of the Customs or other regulations applicable by the French Customs authority which may be found to have occurred on German territory. The French Customs authority shall be entitled to establish the commission of the infringements in question in accordance with the French penal regulations, and to cause sentence to be passed on them in France, and, further, to retain as security or, if necessary, confiscate all objects connected with such infringements, with the exception of the offender's own implements of work.

2. Similarly, the French Customs authority shall be entitled either to remove to France, or to put up for sale on the spot, in accordance with the French regulations, objects confiscated or retained as security on German territory. . . .

Article 16. — Where goods are held in the joint custody of the Customs authorities of both States, the Customs authority of the exporting State shall be considered to have the sole public responsibility for the safe-keeping of the goods. The liability of the railway administration to the owners or recipients of the goods in question for the safe-keeping thereof shall not be affected by this provision. . . .

Article 18. — The regulations applicable under French law by the French Customs authorities in respect of export, import or transit prohibitions or restrictions, or the collection of indirect taxes or dues of any kind, or statistics of goods traffic shall be considered as being equivalent to the actual Customs regulations in so far as the frontier stations on the right bank of the Rhine are concerned.

Article 20. —

5. The French police-inspectors shall not be entitled either to exercise physical compulsion or to make arrests on German soil. They shall carry out their duties in civilian dress, with an arm-band of one colour with a distinctive mark thereon to indicate their official capacity.

91.

CONVENTION of September 28th, 1932, between the Kingdom of Hungary and the Kingdom of Roumania regarding the Organisation of Frontier Stations.

Article 30. —

2. Should resistance be offered to the Roumanian agents employed at the frontier offices of Kőtegyán station, or to their arrangements, the competent Hungarian authorities shall use the necessary compulsion to overcome such resistance and ensure the unhampered discharge of their duties.

INTERNATIONAL CONVENTION of July 16th, 1928, for the Operation of the International Station of Canfranc and of the Line connecting that Station with the French Station of Les Forges d'Abel.

Article 21. — Each Customs administration is required to enforce the Customs regulations of the State to which it belongs ; nevertheless, the two authorities shall co-operate as far as possible in preventing frauds in traffic liable to duties and bringing to light infringements of the laws and regulations.

For this purpose, the higher officials or receivers of the Customs offices at Canfranc station shall supply one another with any information asked for.

Article 22. —

4. With a view to the punishment of infringements of the French laws and regulations applied by the Customs administration, the competent Spanish authorities shall, at the request of the French authorities :

(1) Carry out any interrogations, hear witnesses and experts, establish any facts, carry out any official enquiries or searches or obtain any official information ;

(2) Give notice of any summons, decision, documents or acts of procedure.

Article 27. — 1. General police and criminal investigation duties in the railway premises and dependencies (platforms, tracks, space between tracks, signals, points, level crossings, loading-platforms, etc.) from the Spanish frontier, along the whole length of the line on Spanish territory, up to the international station of Canfranc and in that station, shall be carried out by Spanish police officers.

These officers, when required to do so by senior officers of the French Customs or police, shall assist the French Customs and police officers in carrying out the decisions taken by them within the

limits of the powers conferred upon them by the present Convention. The employment of this armed force shall not involve the refund of any expenses by the French Government.

No French officers of any kind may effect arrests. They shall, however, have the right to keep order within the service premises allotted exclusively to them, and to eject disorderly persons, who shall be handed over to the Spanish police for suitable action.

2. On the arrival of trains coming from the station of Les Forges d'Abel, the officers of the Spanish police shall take steps to prevent passengers from leaving Canfranc station without the permission of the French police, who shall have the right to carry out with regard to those passengers all the formalities laid down in the French laws and regulations for passengers leaving France.

They shall have the right to turn back into French territory any passenger coming from France who is wanted for any reason or who has infringed either the French Customs laws and regulations or the traffic and passport instructions. At the request of the senior French police officer, the Spanish police must take steps to ensure that a person to be sent back to France cannot leave Canfranc station until he can be actually sent back. If supervision is necessary in the train for this purpose, it shall be carried out by the Spanish police in Spanish territory and by the French police in French territory.

The provisions of the present article shall not be applicable to persons of Spanish nationality. By persons of Spanish nationality within the meaning of the present article are understood those possessing Spanish nationality in accordance with the provisions of Spanish law, which is the Constitution in force under the Monarchy of June 30th, 1876, irrespective of any other law.

French police officers may, in the case of such persons, carry out the formalities laid down by the French laws and regulations relating to passengers leaving the country, but shall not have the right to turn them back. They may, however, inform the Spanish police of the reasons why they would have been turned back had they been of another nationality.

3. The French police shall have the right to carry out all formalities laid down by the French laws and regulations for the entry of passengers into France, and to forbid the entry into French territory of all persons, without distinction of nationality, who fail to produce the passports or other papers required by the French regulations (such as a labour contract bearing the stamp of the competent authorities) or who may be unable to prove their identity in spite of the possession of such papers, and those to whom access to French territory is forbidden by administrative or judicial decision.

As the request of the senior French police officer, the Spanish police must take all necessary measures to prevent persons forbidden to enter French territory from entering trains going to the station of Les Forges d'Abel.

4. The French criminal investigation and Customs officers shall have the right, at Canfranc station, to request passengers going to France to produce any tracts, periodicals or books of which they may be in possession, in order to ascertain whether they include any literature forbidden to be introduced into France. Should a passenger refuse to comply with such request or to hand over such prohibited tracts, periodicals or books, the French officials may draw his attention to the consequences which the introduction of such literature into France might entail for him.

Article 28. —

2. The French and Spanish officials entrusted with supervisory duties in Canfranc station and on the international section of the railway shall communicate to one another any information calculated to facilitate the performance of their missions, both as regards the punishment of crimes and offences against ordinary law and the maintenance of the peace and tranquillity of the two States, and also with a view to the arrest of criminals whose extradition may be requested by either country.

Article 29. — Persons deported, escorted or repatriated by the French authorities shall be handed over to the Spanish authorities at the international station of Canfranc, and the handing-over of persons deported, escorted or repatriated by the Spanish authorities shall take place at Les Forges d'Abel. The State taking over a person deported, escorted or repatriated shall not incur any expense.

Persons who are expelled from Spain as French nationals, but are not recognised as such, shall be returned to the Spanish authorities, who shall be bound to take charge of them.

Conversely, persons who are expelled from France as Spaniards, but are not recognised as such, shall be returned to the French authorities, who shall be bound to take charge of them.

Article 30. — The competence of the ordinary Spanish courts is expressly reserved, even in the case of all French nationals or officials, as regards offences and crimes committed in the station or on the line and coming under Spanish laws and ordinances, without prejudice to the provisions of paragraph 2 of Article 22 above¹.

The Spanish judicial authorities shall inform the French Government of any proceedings taken against its nationals and of their results.

¹ See under paragraph 90.

Article 39. — In the case of an infectious or contagious disease of cattle observed or suspected at the time of the veterinary inspection, a report shall be drawn up by the veterinary official who has observed the disease, stating the disease observed or suspected, the place of origin of the animals, their description, the names and surnames of the sender and of the conductor, the numbers of the certificates of origin and any other noteworthy particulars.

The veterinary official who has drawn up the report shall submit a copy of it the same day to the veterinary official of the other State.

Sick or suspected animals, as also those animals which have travelled in the same waggon, or which, in the opinion of the Spanish veterinary official on duty, present a danger of infection, shall, if they come from France, be immediately sent back to the station of Les Forges d'Abel, unless the consignor or the consignee decides to slaughter the animals regarded as contaminated in accordance with the local regulations. If they come from Spain, the French veterinary official shall forbid their transport in French territory, and the Spanish veterinary official shall take all necessary precautions to prevent the spread of the disease.

In the case of unloading, the waggon or waggons which have contained these animals must at the same time be brought to the part of the station set aside for disinfections, and there be thoroughly disinfected. The following shall also be disinfected : loading-platforms, places where the animals have been kept during the inspection, the route which they have covered in the station, gangways, tackle and any other objects which have been used for transport or loading ; the staff engaged in this work shall likewise be properly disinfected, as shall their clothes and utensils.

The operations of disinfection and the other measures mentioned in the preceding paragraph shall be carried out under the direction and on the responsibility of the French or Spanish veterinary official, according as the animals come from France or Spain, and the expense involved shall be a charge upon the State from which the consignments sent back have come.

CONVENTION of April 13th, 1925, between France and Germany regarding the Organisation of Frontier Stations.

Article 15. —

3. If, in the course of Customs supervision or control, or in connection with the ascertainment of infringements of the regulations, the French Customs authority should require to have recourse to physical compulsion in relation to a passenger or person making a Customs declaration who is under obligation to submit to Customs inspection, the French Customs authority must apply to the German police or Customs officials. The French officials shall not be entitled to make an arrest.

Article 20. — 1. The French control of passports or other identification papers with which travellers are required to be provided on entering or leaving France shall be effected at the joint frontier stations on the right bank of the Rhine by a single police-inspector and at Kehl station by two police-inspectors.

2. Travellers proceeding to France, who are not in a position to prove their identity by means of papers valid for the entry into France, and persons who are refused access to French soil as a result of administrative or judicial action, shall be requested by the French inspector not to continue their journey. Should they refuse to comply, the inspector shall have recourse to the assistance of the German police or Customs officials.

3. Further, the French inspectors shall be entitled to call upon passengers coming from France to show their passports or other identification papers, it being understood that the passengers in question shall not be subject to any further consequences on the ground that their papers are not found in order by the French authorities. The German police and Customs officials shall render assistance to the French inspectors in the event of a passenger refusing to submit to such control.

4. The French police-inspectors on duty at the joint frontier stations on the right bank of the Rhine shall be entitled to call upon travellers proceeding to France to show the printed papers, periodicals or books which they have with them, in order to ascertain whether they include papers, periodicals or books which it is forbidden to import into France. Should a traveller not comply with such a demand, or decline to part with forbidden papers, periodicals or books in his possession, the French inspector shall be entitled to draw his attention to the consequences which the importation of such writings into France may involve for him. . . .

Article 21. — The German and French police officials in the joint or separate frontier stations enumerated in Article 1 of this Convention shall give each other all such information as is calculated to facilitate proceedings in connection with crimes and offences and in particular to accelerate the arrest of persons whose extradition may be subsequently requested by one of the Contracting Parties.

Article 22. — The measures in the interest of public health to be taken by the French veterinary police in connection with the import of meat, meat products or live-stock from Germany into France or from France into Germany shall be determined in each of joint frontier stations on the right bank of the Rhine by a chief veterinary officer to be appointed specially for the purpose by the French administration concerned. The German and French Administrations shall be entitled to restrict such measures by common agreement to particular joint frontier stations, having regard to the

available plant and economic requirements. The French chief veterinary officers shall exercise their official functions in civilian dress.

The French veterinary supervision in the case of meat and meat products in transit through Germany to France shall take place in the frontier stations indicated in the preceding paragraph, and in the case of live-stock in France.

All requisite precautions must be taken in connection with these veterinary measures to limit the danger of infection as far as possible.

The German and French veterinary officers on duty in the joint frontier stations on the right bank of the Rhine shall keep each other informed as to epidemics or infectious diseases found or suspected in the course of their examinations.

Article 29. — Officials of the two Contracting Parties employed in the frontier stations on the right bank of the Rhine shall lend each other assistance in the performance of their duties, in particular in connection with the prevention and detection of offences.

Article 30. — In order as occasion requires to assist proceedings in connection with offences against the French Customs and railway regulations committed on German territory, the competent German authorities on the direct application of the French authorities concerned shall take the depositions of accused persons, witnesses or experts, undertake official verifications, enquiries or searches, and issue notices of summons or sentences.

The expenditure incurred as a result of such official action shall be refunded direct to the German authorities responsible.

CONVENTION of March 29th, 1923, for the Regulation of Transit and Communications on the System of the Danube-Save-Adriatic Railway Company (formerly the Southern Railway Company).

Article 45. — The officials of one State serving in the territory of the other State shall be entitled . . . to take the necessary steps for the arrest of persons who may be charged with offences, with a view to a decision as to their temporary detention being taken by the authorities of the territory in which the common station is situated; the latter authorities shall possess the sole right to take measures restricting the personal liberty of individuals in their territory.

Article 47. — 1. In case of the illegal loading, unloading or transport of goods or of an incomplete or false declaration, the State to which the goods are consigned or from which they are despatched shall sentence the offenders to the penalties which would have been applicable if the railway station or line had been situated in its own territory.

For this purpose, the officials of the Customs office situated in the territory of the other State shall be empowered to report the offenders to the courts of their own State, which will try them in accordance with the laws of their own country.

No judicial action shall be taken against railway officials except with the previous consent of the competent head of department.

2. The said agents shall also be empowered to adjust matters with persons committing offences, confiscate the articles in respect of which the offence was committed, or dispose, if necessary, of confiscated goods, either on the basis of an arrangement with the person charged, if he surrenders the goods to the Customs, or of a final judgement delivered by a court ordering confiscation of the goods to the Customs.

3. The said agents shall also be entitled to retain goods and baggage as security for fines, except when security is paid pending consideration of the case.

97.

AGREEMENT of November 7th-9th, 1898, between the Danish and German Railways concerning the Organisation and Operation of a Ferry-boat Service between Gjedser and Warnemünde.

§ 1. — The installations necessary for the berthing of ferry-boats at Gjedser and Warnemünde shall be erected on the same principles, so as to enable the ferry-boats to use the landing-stages on both coasts with equal safety. The building-plans and details of execution shall form the subject of a special agreement between the Contracting Parties.

Similarly, the ferry-boats, shall in general be built on the same model. The Parties shall agree upon the best system of construction and on the details of the vessels' equipment.

§ 2. — Each Party shall make its own arrangements, at its own expense, for building its landing-stages and the ferry-boats which it will put into service.

§ 3. — Each Party shall immediately put two ferry-boats into service.

§ 4. — The various formalities shall all be effected by the two coast stations without payment of dues on either side.

The passages made by the Danish ferry-boats shall be regarded as coming under the Danish sphere of operation and those made by the German ferry-boats as coming under the German sphere. Each Party shall bear its own working expenses and have sole control

of its own vessels and personnel. Only in exceptional cases, when urgent circumstances make it necessary to take immediate action to maintain the service, may the management of the German Railways provisionally utilise the Danish units, but in such cases it shall be bound to notify immediately by telegraph the management of the Danish Railways of the reasons for such action and of the orders given.

§ 5. — The Parties mutually guarantee one another exemption from all charges for the use by the ferry-boats of their respective harbours.

§ 6. — Paragraph 1. — Should one of the vessels have to be withdrawn from service, either for the customary cleaning of the boilers or for the annual inspection or on account of damage, and should the owner of such vessel be unable to operate his part of the service with his other vessel only, the other administration shall be bound to help with its vessels in maintaining the scheduled communications and the regular service. The owner of the vessel withdrawn from the service shall take as promptly as possible the necessary steps to put the vessel back into the service or to replace it by another.

§ 8. — As regards the fixing of tariffs and the computation of the respective shares, the distance of 42 kilometres separating Gjedser from Warnemünde shall be divided into two sections, the northern being attached to the Danish zone of operation and the southern to the German zone of operation, so that the revenue accruing from the transport of passengers, goods and cattle on the line in question will not involve any financial settlement.

* * *

AGREEMENT of February 22nd-25th, 1932, between the Danish and Swedish State Railways regarding the Ferry-boat Service between Elsinore and Hålsingborg.

§ 11. — The Danish Railway shall supply the landing-stages necessary for ferry-boats at Elsinore and the Swedish Railways the landing-stages necessary at Hålsingborg.

Any expenses that may be incurred for damage done to the landing-stages shall be borne, at Elsinore by the Danish and at Hålsingborg by the Swedish Railways.

**CHRONOLOGICAL INDEX OF CONVENTIONS, TREATIES,
ETC., MENTIONED IN THE STUDY, SHOWING IN WHAT
PARAGRAPHS THE VARIOUS ARTICLES OF CONVENTIONS,
TREATIES, ETC., ARE QUOTED.**

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| <p>1850. — Agreement of December 31st, 1850, between the Imperial Austrian Government and the Royal Government of Saxony, regarding the Junction of the Railways of the Two States.</p> <p style="padding-left: 40px;">Article 5.</p> | <p>12, 18</p> |
| <p>1852. — Convention of July 27th-August 11th, 1852, between the Swiss Confederation and the Grand-Duchy of Baden with regard to the Extension of the Baden Railways into Swiss Territory.</p> <p style="padding-left: 40px;">Article 29</p> <p style="padding-left: 40px;">Article 40</p> | <p>48</p> <p>13</p> |
| <p>1863. — Convention of December 4th, 1863, between the Northern Railway Company of Spain and the Midi Railway Company for the Operation of the Line connecting Irun with Hendaye.</p> <p style="padding-left: 40px;">Article 2.</p> <p style="padding-left: 40px;">Article 4.</p> | <p>41</p> <p>74</p> |
| <p>1864. — Convention of April 8th, 1864, between France and Spain regarding the Inspection and Customs Service on the Midi Railway of France and the Northern Railway of Spain. (<i>DE CLERCQ : Recueil des Traités de la France</i>, 9, 12.)</p> <p style="padding-left: 40px;">Article 1.</p> | <p>38</p> |
| <p>1869. — Convention of November 23rd, 1869, between the Baden Railway Administration and the Swiss Central Railway Administration regarding the Construction and Operation of a Junction Railway between the Badischer Bahnhof at Klein-Basel and the Central Railway Station at Gross-Basel.</p> | <p>13</p> |

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| 1870. — Treaty of August 27th, 1870, between Switzerland, the Austro-Hungarian Empire, also representing Liechtenstein, and Bavaria regarding the Construction of a Railway from Lindau to St. Margarethen <i>via</i> Bregenz, and of a Railway from Fedlkirch to Buchs. (<i>Recueil des Lois et Actes du Gouvernement et de la République de Genève</i> , LVII, 349 (1871).) | |
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| Treaty of December 10th, 1870, between Switzerland and the Grand-Duchy of Baden regarding the Junction of the Thurgovian Seethal Railway with the Baden State Railway. (<i>Recueil des Lois et Actes du Gouvernement et de la République de Genève</i> , LVII, 397 (1871).) | |
| Article 8. | 20 |
| 1872. — Federal Law of December 23rd, 1872, regarding the Construction and Operation of Railway Lines in the Territory of the Swiss Confederation. (<i>Recueil des Lois et Actes du Gouvernement et de la République de Genève</i> , LIX, 1 (1873).) | |
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| 1876. — Convention of June 26th, 1876, regarding the Exchange of Passenger and Goods Traffic between Switzerland and France <i>via</i> the Frontier Stations of Porrentruy (Switzerland) and Delle (France). | |
| Article 9. | 47 |
| 1878. — Convention of July 15th, 1878, between the Tarragona-Barcelona and France Railway Company and the Midi Railway Company of France for the Operation of the Line connecting Cèrbère with Port-Bou. | |
| Article 2. | 41 |
| 1879. — Convention of January 20th, 1879, between France and Italy regarding the International Stations at Modane and Vintimille. (DE MARTENS: <i>Nouveau Recueil général de Traités</i> , VI, 6, 470.) | |
| Article 1. | 29 |
| Convention of October 20th, 1879, between Austria-Hungary and Italy regarding the Railway Junctions in the Vicinity of Cormona, Ala and Pontafel. (DE MARTENS: <i>Nouveau Recueil général de Traités</i> , VI, 6, 356.) | |
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| 1882. — Convention of July 2nd, 1882, between France and Spain to regulate the Inspection and Customs Services on the Tarragona-Barcelona and France Railway and the Midi Railway of France. (DE CLERCQ : <i>Recueil des Traités de la France</i> , 14 : 48.) Article 1. | 38 |
| 1885. — Treaty of March 6th-7th, 1885, between the State of Geneva and the Paris-Lyons-Mediterranean Railway Company for the Operation of the Railway from Les Vollandes to the French Frontier in the Direction of Annemasse. (<i>Recueil des Lois et Actes du Gouvernement et de la République de Genève</i> , LXXI, 167 (1885).) Article 13 | 8 |
| 1887. — Convention of September 14th, 1887, between Bulgaria and Serbia regarding the Junction of Railway Lines. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VI, 16, 564.) Article 35 | 18 |
| 1891. — Convention of March 14th-21st, 1891, between Roumania and Austria-Hungary regarding the Junction of Railway Lines. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VI, 6, 18.) Article 19 | 25 |
| 1894. — Railway Convention of June 30th, 1894, between Bolivia and the Argentine. (Bolivia. — <i>Tratados vigentes 1825-1925</i> , I, 61.) Article 3. | 33 |
| 1895. — Treaty of November 25th, 1895, between Switzerland and Italy for the Construction and Operation of a Railway <i>via</i> the Simplon from Brigue to Domodossola. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , V, 27, 406 ; <i>British and Foreign State Papers</i> , 92 : 402.) Article 5 Article 6 Article 7 Article 17 | 34 34 33 8 |
| 1896. — Federal Law (Swiss) of March 27th, 1896, regarding Railway Accounting. (<i>Recueil officiel des Lois et Ordonnances de la Suisse</i> , 1895-1896, page 523.) Article 1. | 10 |

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| 1898. — Agreement of November 7th-9th, 1898, between the Danish and German Railways concerning the Organisation and Operation of a Ferry-boat Service between Gjedser and Warnemünde. | |
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| 1899. — Convention of December 2nd, 1899, between Switzerland and Italy regarding the Junction of the Swiss Railway System with the Italian System <i>via</i> the Simplon, the Name of the International Station and the Operation of the Iselle-Domodossola Section of Line. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VI, 29, 446; <i>British and Foreign State Papers</i> , 92 : 396.) | |
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| Railway Convention of December 11th, 1902, between the Argentine and Bolivia. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VII, 6, 293.) | |
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| 1904. — Treaty of December 6th, 1904, between the German Reich and Russia regarding the Establishment of a Railway Connection at Skalmierzyce and the Warsaw-Kalisch Railway. (<i>Reichsgesetzblatt</i> , 1905, 11; French and German texts.) | |
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| 1904 and 1905. — Convention of August 18th, 1904, and March 8th, 1905, between France and Spain regarding the Establishment of Railway Communications across the Central Pyrenees. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VII, 1, 209; <i>British and Foreign State Papers</i> , 98 : 632.) | |
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| 1905. — Convention of January 10th, 1905, between Germany and Russia concerning the Junction of the Warsaw-Kalisch Railway with the Prussian Line Skalmierzyce-Ostrowo and Herby-Czenstochow with Lublinitz-Herby. (DE MARTENS : <i>Nouveau Recueil général de Traités</i> , VI, 35, 486.) | |
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| 1906. — Agreement of February 19th, 1906, between the Administration of the Italian State Railways and the Administration of the Swiss Federal Railways regarding the Operation of the International Station of Domodossola and the Exchange of Rolling-Stock. (<i>Recueil officiel des Lois et Ordonnances suisses</i> , 1906, page 232.) | |

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| 1907. — Arrangement of October 30th, 1907, between Belgium and France for regulating the Operation of the Railway from Hazebrouck to the Belgian Frontier. <i>(DE MARTENS : Nouveau Recueil général de Traités, VII, 4, 173.)</i> | |
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| 1908. — Convention of July 13th, 1908, between Germany and the Netherlands regarding the Railway from Neuenhaus to Coevorden. <i>(DE MARTENS : Nouveau Recueil général de Traités, VII, 4, 290.)</i> | |
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| Convention of December 16th, 1908, between France and Switzerland prescribing the Conditions for the Construction and Operation of a Railway between Martigny and Chamonix. <i>(DE MARTENS : Nouveau Recueil général de Traités, VII, 5, 302.)</i> | |
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| 1909. — Convention of June 18th, 1909, between France and Switzerland for the Improvement of Means of Access to the Simplon Railway. <i>(DE MARTENS : Nouveau Recueil général de Traités, VII, 5, 536 ; British and Foreign State Papers, 102 : 614.)</i> | |
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¹ The Convention was ratified by the following countries : Australia, Austria, Belgium, Brazil, British Empire, Bulgaria, China, Czechoslovakia, Denmark, Egypt, Estonia, Finland, France, Germany, Greece, Hungary, India, Iran, Iraq, Italy, Latvia, Luxemburg, French Protectorate of Morocco, Netherlands, New Zealand, Norway, Poland, Roumania, Siam, Sweden, Switzerland, Regency of Tunis, Union of South Africa, Yugoslavia.

² The Convention was ratified by the following countries : Austria, Belgium, British Empire, Denmark, Estonia, Ethiopia, Germany, Greece, Hungary, India, Italy, Japan, Latvia, Netherlands, New Zealand, Norway, Poland and Free City of Danzig, Roumania, Siam, Spain, Sweden, Switzerland, Yugoslavia.

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LEAGUE OF NATIONS

Geneva, September 16th, 1935.

COMMUNICATIONS AND TRANSIT ORGANISATION

**Juridical and Administrative Systems in force
on the Frontier Sections of Railway Lines and
at Junction Stations.**

ERRATA

(1) Page 83: The extract from Article 14 of the Treaty of June 30th, 1930, between Austria and Hungary reproduced under No. 27 should appear on pages 91/92 (No. 36).

(2) Pages 91/92: The extract from Article 14 of the Treaty of June 30th, 1930, between Austria and Hungary reproduced under No. 36 should appear on page 83 (No. 27).

[Communicated to the Council
and the Members of the League.]

Official No. : **C.482.M.209**, 1934. VIII.
Addendum.

Geneva, April 30th, 1935.

LEAGUE OF NATIONS

ORGANISATION FOR COMMUNICATIONS AND TRANSIT

ENQUIRY

ON

NATIONAL PUBLIC WORKS

ADDENDUM

Series of League of Nations Publications

VIII. TRANSIT ✓
1935. VIII. 3.

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INTRODUCTION.

It was stated in the Introduction to the volume entitled "National Public Works" (document C.482.M.209.1934.VIII) that the replies from Governments to the Circular Letter of March 7th, 1934, concerning national public works, which reached the Secretariat after the publication of that volume, would appear in an addendum. The present volume contains these replies, which have been received from the Governments of the Union of South Africa, Australia, Chile, China, Denmark, Egypt, Ethiopia, France, Hungary, India, Irish Free State, Poland, the United States of America, Sweden.

Of the replies given in this second series, those from the Union of South Africa, Australia, Denmark, France and the United States of America contain information additional to that already supplied and published in the first volume.

As in the first volume, the replies from the Governments mentioned are, in general, reproduced in full; but certain details or particulars of a purely local character have been omitted where the reply was too long to permit of its publication *in toto*. The printed documents which accompanied some of the replies have, in general, not been reproduced; but extracts have been made from them where the subject, matter appeared to come more specifically within the scope of the enquiry.

An index precedes the replies from the Governments; it enumerates, under the heading of each category of work mentioned in the annex to the Circular Letter, the countries whose replies deal directly with the work falling into these categories. The index includes only the documentation reproduced in the present volume. A list of the documents annexed to the replies which have not been published or of which only extracts have been reproduced will be found at the end of this volume. These documents are kept in the archives of the Secretariat and their contents can be supplied to Governments upon request.

* * *

For the convenience of the reader, the Circular Letter of March 7th, 1934, in which the Secretary-General of the League of Nations asked the Governments for information concerning national public works in their countries is reproduced below.

I. A brief description of the main public works :

- (a) Undertaken since the beginning of the year 1929 and now completed;
- (b) Now in course of execution;
- (c) The execution of which is at present in contemplation or schemes for which are in preparation.

The term "public works" is intended to include the various categories of work mentioned in the list annexed to the present circular, and the public works described should, as far as possible, be classified according to the categories shown in that list.

II. The principal administrative methods followed or contemplated for the execution of the work referred to in I, and any legal provisions relating to such work.

(Has the work in question been carried out, or is it being, or to be, carried out on behalf of or by the order of a central, regional or local or other authority, or on behalf of a company holding a concession from public services, or on behalf of private persons receiving a grant from the public authorities? Is such work being carried out directly by the authorities, or by contract, etc.?)

III. The principal methods employed for financing such work.

(Is the expenditure on the work charged to the ordinary or the extraordinary budget of the State, the budget of regional or local administrations, the budgets of public bodies, etc., or is it financed by an internal or external loan? Security of such loans; plans of repayment, etc.)

IV. An estimate, as far as is possible, of the allocation of expenditure on the execution of the public works referred to in I, as between materials and equipment provided by national or foreign industries, on the one hand, and labour—that is to say, wages and miscellaneous social expenditure—on the other.

V. The Government's opinion with regard to the effects obtained or expected from the execution of the public works referred to in I on the resumption of economic and industrial activities and on unemployment.

Governments are requested to forward their replies, and any documentation annexed thereto, in triplicate.

CLASSIFICATION OF PUBLIC WORKS BY CATEGORIES.

- (a) Roads and bridges.
 - (b) Railway lines, including tramways, metropolitan railways, etc. (If possible, mention the more important construction works separately.)
 - (c) Complete agricultural land reclamation (drainage, irrigation, construction of dwelling-houses and various new buildings, or establishment of entire new settlements, country roads and other works connected with land settlement).
 - (d) Canals and other inland waterways (including improvement work on rivers, defensive work against floods, etc.). (Work not already included under (c).)
 - (e) Land improvement work, bringing of new land under cultivation, re-forestation, etc. (Work not already included under (c).)
 - (f) Provision of drinking-water supplies and sewage disposal. (Work not already included under (c).)
 - (g) Work carried out in sea and river ports, including mechanical equipment of such ports.
 - (h) Work for the establishment of air ports.
 - (i) Building and construction work forming part of a general plan and carried out (or to be carried out) with the participation or approval of public authorities, classified according to category (administrative buildings, dwelling-houses, etc.). (Work not already included under (c).)
 - (j) Electric installations, hydro-electric and heating power centres, motive-power transmission.
 - (k) Gasworks and long-distance gas supply.
 - (l) Telegraph and telephone installations, wireless broadcasting stations.
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-

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AUSTRALIA¹

DEPARTMENT OF THE INTERIOR

COMMONWEALTH PUBLIC WORKS SECTION.

I.

The activities of the Public Works and Services Section of the Department of the Interior cover the construction of buildings and engineering works and the repair and maintenance of buildings and engineering works required in connection with Commonwealth Services in the various States and at the Federal capital, comprising :

Postmaster-General's Department.

Construction of post offices, telephone exchanges, broadcasting stations, installation of mail-handling plant in G.P.O. buildings (Melbourne and Sydney), air-conditioning plant in automatic telephone exchanges, but not including telephone equipment, workshop and store buildings, etc.

Defence Department.

Drill halls, barracks, mobilisation stores, explosives stores, aerodromes, hangars, stores, workshop buildings, barracks and residences for Royal Australian Air Force establishments, night-lighting equipment on civil aviation air routes and terminals in capital cities; factories for manufacture and testing of munitions; fuel-oil storage depots for the Royal Australian Navy; also barrack buildings, etc., for training and victualling depots, including wharf and harbour works as required.

Associated with the foregoing are the incidental engineering works such as water supply, sewerage, electric supply, roads, drainage, etc.

Health Department.

Quarantine stations, buildings for serum laboratories, institutes of tropical medicine, health laboratories, etc.

Commerce Department.

Quarters and buildings, including wharves and store buildings, for the lighthouse service, but not including the construction of lighthouses or installation of equipment.

Repatriation Department.

Construction of hospitals, etc., installation of heating, hot water and certain medical equipment, etc.

¹ Information additional to the reply previously sent by this Government and published in the first volume.

Department of Interior.

Commonwealth office buildings as required in various States.

Federal Capital Territory.

Construction of buildings required in connection with the establishment and the development of the Federal capital, including parliamentary buildings, offices, police station, court-house, hospital, hotels, Australian Institute of Anatomy, Australian war memorial, laboratories for plant industry and entomological divisions of the Council for Scientific and Industrial Research, schools, swimming-baths, housing schemes, workshops, brickworks, etc., water supply, sewerage and drainage schemes, electric supply, roads, bridges and other civic facilities.

Northern Territory.

Construction of administrative buildings, police stations, hospitals, houses, etc.; improvements to stock routes and roads throughout the territory; maintenance and development of water supplies on stock routes, comprising boring, well-sinking and equipping with windmills or engines, and storage.

* * *

The works carried out in the States by this Department (Works and Services Section) cannot be readily classified into the categories named; for instance, most of the establishments erected comprise categories such as :

- (a) Roads and bridges;
- (b) Drinking-water supplies and sewage disposal;
- (c) Electric installations, etc.

But the schemes are purely local and confined to Commonwealth establishments. Roads would be mostly in the nature of access and internal roads. Water, sewerage and electric supply services are usually connected with larger schemes financed by State Governments or municipalities, and it is only in a few cases where such schemes are not available that special supply schemes are installed for Commonwealth purposes, and in any event these are of a minor character as compared with the class of work covered by the enquiry.

The following categories cover the important phases of this Department's work, and the expenditure over the past six financial years on the new works, additions and alterations, not including repair and maintenance services, was :

POSTMASTER-GENERAL'S DEPARTMENT.

(a) *Works carried out.*

| Year. | £ | Nature of work |
|-------------|----------|---|
| 1928-29 ... | 215,486 | Approximately 50 new post offices and telephone exchanges; |
| 1929-30 ... | 251,418 | Approximately 10 new post offices and exchanges and additions of a major character; |
| 1930-31 ... | 34,805 | Approximately 7 new post offices and exchanges (including 3 broadcasting stations); |
| 1931-32 ... | 10,017 | Approximately 9 new post offices and exchanges (including 2 broadcasting stations); |
| 1932-33 ... | 6,495 | Approximately 12 new post offices and exchanges (including 1 broadcasting station); |
| 1933-34 ... | 14,287 | |
| Total ... | £532,508 | |

(b) *Works in Hand and to be undertaken during 1934-35 (£182,000).*

The outstanding work completed during the period (but previously undertaken) was the remodelling of the Sydney General Post Office and the installation of mail-handling plant, which cost over £500,000.

Several automatic telephone exchanges were also completed and 6 regional broadcasting stations.

The programme of works now in hand comprises some 18 post office and telephone exchanges (including an £80,000 building in Melbourne), 6 further regional broadcasting stations and a cable station for Tasmanian service.

DEFENCE DEPARTMENT.

Military Works.

| Year | £ |
|---------------|------------------|
| 1928-29 | 33,013 |
| 1929-30 | 20,204 |
| 1930-31 | 730 |
| 1931-32 | 534 |
| 1932-33 | 4,040 |
| 1933-34 | 11,788 |
| | Total... £70,309 |

This expenditure covers the completion of explosives stores, various drill halls, new buildings and additions in the capital cities, sea-walls to safeguard forts at Nepean and Port Phillip Heads, etc.

The programme for 1934-35 now being placed in hand covers an estimated expenditure of £165,000, and includes new artillery engineers' and transport depots and some 20 new drill halls, etc., or major additions thereto; also coast defence works.

Royal Australian Air Force Works.

Royal Australian Air Force works have been carried out at the various Royal Australian Air Force stations. These comprise hangars, workshops, School of Aeronautics, seaplane slipways, accommodation for personnel, electric supply, water supply and sewerage, roads and paths, drainage, taxiways, runways and general aerodrome levelling, surfacing, etc.

| Year | £ |
|---------------|--------|
| 1928-29 | 39,551 |
| 1929-30 | 32,734 |
| 1930-31 | 8,765 |
| 1931-32 | 2,645 |
| 1932-33 | 5,198 |
| 1933-34 | 10,987 |

The sum of £126,065 has been appropriated for expenditure during 1934-35 on further hangars, aircraft buildings, quarters, etc., at the establishments above mentioned.

Civil Aviation.

The work under this section covers the preparation of terminal aerodromes at the capital cities. The bulk of the expenditure has been in the direction of underground drainage, levelling and surfacing and construction of runways to make all-weather landing-grounds. In the case of Perth (Maylands Aerodrome), a levee bank has had to be built

to protect the aerodrome against floods, and at Mascot (New South Wales) an extensive underground drainage system had to be put in. Hangars and administrative buildings have also been erected.

Landing-grounds have been established at intervals on air routes encircling the continent, comprising over 8,000 miles, and, where required for night landing, lighting has been installed. Expenditure as under :

| Year | £ |
|---------------|----------|
| 1928-29 | 30,806 |
| 1929-30 | 28,524 |
| 1930-31 | 18,353 |
| 1931-32 | 13,079 |
| 1932-33 | 28,498 |
| 1933-34 | 12,934 |
| Total... | £132,194 |

For 1934-35, £55,000 is provided. Incidental to the extension of the overseas air mail service, the Darwin aerodrome is being developed, and the grounds on the route thence through Queensland are being improved and night lighting provided at Darwin and other places on the route.

Naval.

The principal works carried out are the erection of oil-fuel storage tanks and additions to naval establishments. At the present time, additional tanks are being erected and a further naval oil storage depot is projected. The expenditure figures are :

| Year | £ |
|---------------|----------|
| 1928-29 | 36,907 |
| 1929-30 | 25,730 |
| 1930-31 | 6,228 |
| 1931-32 | 25,620 |
| 1932-33 | 768 |
| 1933-34 | 21,555 |
| Total... | £116,808 |

1934-35 £48,460 (provided in estimates).

Munitions Supply.

Additions have been made to the factories for the manufacture of shells, explosives, guns, etc., to the extent of :

| Year | £ |
|---------------|---------|
| 1928-29 | 30,360 |
| 1929-30 | 25,628 |
| 1930-31 | 642 |
| 1931-32 | 1,438 |
| 1932-33 | 2,252 |
| 1933-34 | 11,720 |
| Total... | £72,040 |

In 1934-35, £55,000 is provided for further additions to be undertaken at these establishments.

HEALTH DEPARTMENT.

The Commonwealth Health Department's works cover quarantine stations, health laboratories in the tropics, mining areas and certain industrial areas, a School of Health at the Sydney University (£36,500) and serum laboratories.

Works under these headings have been carried out to the extent of :

| Year | £ |
|---------------|---------------------|
| 1928-29 | 20,961 |
| 1929-30 | 28,127 |
| 1930-31 | 6,981 |
| 1931-32 | 150 |
| 1932-33 | 1,260 |
| 1933-34 | 2,174 |
| 1934-35 | 17,300 (projected). |

COMMONWEALTH OFFICES, BRISBANE.

A new office building—£90,000—is now under construction.

UNEMPLOYMENT RELIEF WORKS.

Apart from the expenditure on new works, etc., listed above, the Public Works Section expended the following amounts from Appropriations for Unemployment Relief Works :

| Year | £ |
|---------------|----------|
| 1930-31 | 26,471 |
| 1931-32 | 236,425 |
| 1932-33 | 97,922 |
| 1933-34 | 159,357 |
| Total... | £520,175 |

As far as this Section is concerned, the money was devoted to works such as repair and maintenance of Commonwealth buildings, earthworks, roads, paths, drainage, and improvements to various Commonwealth establishments, etc., and the erection of certain buildings at the Flinders Naval Depot and the serum institutes.

The figures do not include other and more comprehensive schemes which were undertaken jointly by the Commonwealth and State Governments.

FEDERAL CAPITAL TERRITORY.

The works undertaken during the period comprised :

The completion of the Australian Institute of Anatomy and of the plant industry building at the C.S.I.R. establishment at Black Mountain; the erection of some 50 cottages; construction of swimming-pool (£12,000); new service reservoir and pipe line thereto (£40,000); extension of pumping plant (£10,000); roads—bituminous surfacing of existing roads; low-level bridge (£3,000); stormwater drains; extension of sewage treatment

works and water and sewerage reticulation. These works involved the following expenditure :

| Year | £ |
|---------------|---------|
| 1928-29 | 343,380 |
| 1929-30 | 315,245 |
| 1930-31 | 113,077 |
| 1931-32 | 71,164 |
| 1932-33 | 91,641 |
| 1933-34 | 184,898 |

In the current year, new works are being carried out to the extent of £297,091. This includes the first section of the Australian war memorial (£85,500); the National Library (£13,000); a scheme of cottage construction (£122,373), under which 54 houses are in course of construction and a further 60 will be built during the year; £41,212 for roads and bridges, mainly for bituminous treatment of existing roads; £32,292 for extensions to the water-supply and sewerage schemes; and £9,469 for electrical reticulation extensions.

NORTHERN TERRITORY.

Developmental works have been carried out in the Northern Territory, comprising the sinking of bores and wells on the principal stock routes, and equipping same; the construction of roads and tracks, cattle dips; administrative buildings and a half-caste institute at Alice Springs; a quarantine station at Darwin and a hospital at Katherine (now in hand).

The following amounts have been spent on works :

| Year | £ |
|---------------|--------|
| 1928-29 | 57,494 |
| 1929-30 | 35,326 |
| 1930-31 | 27,021 |
| 1931-32 | 10,607 |
| 1932-33 | 6,660 |
| 1933-34 | 13,020 |

The estimates for 1934-35 provide for an expenditure of £50,000, which includes the completion of the Katherine Hospital, Judge's residence at Darwin; £12,000 for bores and wells and equipment; £15,000 for dredging Darwin Harbour. There is also an amount of £5,000 for the development of the gold-mining field at Tennant's Creek, Central Australia.

FEDERAL AID ROADS.

Under the Federal Aid Roads Act of 1926, £2,000,000 per annum for five years was appropriated from Customs revenue on motor chassis, etc., and petrol, for distribution amongst the States for expenditure on roads; under the Federal Aid Roads Act No. 22 of 1931, an amended arrangement was made by which revenue from Customs duties on petrol amounting to 2½*d.* per gallon and excise duty amounting to 1½*d.* per gallon are paid to the States for the construction, maintenance, etc., of roads. The road works undertaken from Federal Aid Roads Funds are selected and carried out by the State road authorities on their own responsibility.

The following payments have been made under the foregoing Acts :

| Year | £ |
|---------------|-----------|
| 1928-29 | 2,026,082 |
| 1929-30 | 3,092,613 |
| 1930-31 | 2,121,421 |
| 1931-32 | 2,017,114 |
| 1932-33 | 1,894,648 |
| 1933-34 | 2,304,122 |

COMMONWEALTH BANK.

Under an arrangement with the Commonwealth Bank authorities, the Department of the Interior designs and supervises the construction of bank buildings. The principal works carried out in the period mentioned are :

| | £ |
|--|---------|
| Perth Commonwealth Bank | 250,000 |
| Sydney : Extensions to head office | 500,000 |
| Commonwealth note printing building, Melbourne | 150,000 |

In addition, some 50 new banks in various metropolitan suburbs and country towns have been erected.

The total expenditure on bank works amounted to :

| Year | £ |
|---------------|---------|
| 1928-29 | 99,429 |
| 1929-30 | 185,018 |
| 1930-31 | 304,360 |
| 1931-32 | 399,215 |
| 1932-33 | 253,724 |
| 1933-34 | 93,040 |

At the present time, the Department has in prospect approximately £100,000 worth of bank works, the principal of which are :

| | £ |
|-----------------------------------|--------|
| Adelaide : New bank premises..... | 50,000 |
| Hobart : New bank premises | 20,000 |

AUSTRALIAN BROADCASTING COMMISSION.

It is possible that studios will be erected for the Commission in the principal capital cities to the extent of £150,000.

II.

The work is carried out by the Department of the Interior, which is administered from the Federal capital. There is a branch in each State responsible for execution.

The policy of the present Government is execution by contract.

The Department carries out work in the States of the Commonwealth, the Federal Capital Territory and Northern Territory on behalf of Commonwealth Departments, the Commonwealth Bank and the Australian Broadcasting Commission.

III. METHODS OF FINANCE.

Commonwealth works generally are financed from parliamentary appropriations from revenue or from Commonwealth loan funds.

The Commonwealth Bank and the Australian Broadcasting Commission finance works undertaken on their behalf.

Federal Aid Roads are financed from Customs and excise revenue on petrol, etc.

IV.

By reason of the wide diversity in character of the works undertaken, and of their distribution between country and metropolitan areas throughout the Commonwealth, and owing to the fact that they have been carried out mainly by contract, it is not possible to estimate the allocation of expenditure between labour, wages and miscellaneous social expenditure. It might be stated, however, that practically the whole of the expenditure on material benefits local industry.

V.

It is difficult to gauge the effect of the Public Works programme on the resumption of economic activities. The works, being mainly for postal, defence and bank purposes, are of economic value only as providing a certain amount of employment in their construction. The postal and bank works provide public facilities and, as such, are of economic importance, and the sharp upward swing in the postal building programme would certainly be indicative of the resumption of economic and industrial activities.

As to the effect on unemployment, the works programme is too widely distributed, and, moreover, mostly carried out by contract, to enable a close study of the position to be made. The nature of the work is such that the skilled tradesmen receive most benefit as against the masses of the unskilled unemployed.

COMMONWEALTH RAILWAYS.

The large railway works completed since 1929 are as follows :

1. Construction of the railway from Oodnadatta to Alice Springs, 293 miles; opened for traffic on August 2nd, 1929. This railway was built by contract. The completed cost (including additions and betterments since the line was opened) to June 30th, 1934, is £1,715,963 (loan £1,714,544; revenue £1,419). See Oodnadatta to Alice Springs Railway Act, 1926.

2. Construction of the railway from Emungalan (Katherine River) to Birdum, 117 miles; opened for traffic on September 4th, 1929. This railway was built under the day-labour system. The completed cost (including additions and betterments since the line was opened) to June 30th, 1934, is £1,146,170 (all loan). See Northern Territory Railway Extension Act, 1923.

3. Construction of the railway from Kyogle to South Brisbane, and rebuilding and strengthening the railway from Grafton to Kyogle; distance: new construction, 95 miles; rebuilding and strengthening, 84 miles. Opened for traffic on September 27th, 1930. Portion built under contract and portion under day-labour system. Completed cost, £4,362,074 (all loan). See Grafton to Kyogle and South Brisbane Railway Act, 1924, also 1926, 1929, 1930.

The railways Nos. 1 and 2 were constructed for the purpose of developing Australia's inland territory. Work No. 3 was undertaken as a portion of the scheme to afford Australia a uniform railway-gauge system.

The moneys for each of the three railways were provided by the Commonwealth Treasury, but in respect of No. 3 provision was made for certain financial adjustments with the States, in accordance with the provisions of the agreement contained in the Grafton to South Brisbane Railway Act, 1924.

As most of the work involved in railways Nos. 1 and 3 was carried out by contract, our records would not enable us to subdivide the expenditure under the headings of "Wages" and "Miscellaneous Social Expenditure and Other".

POSTMASTER-GENERAL'S DEPARTMENT.

In Australia, postal, telegraph and telephone services are completely under the control of the Federal Government, and such services are administered and operated by the Commonwealth Postmaster-General's Department.

The "new works" undertaken by the Department during the years 1929 to 1934 were mainly for the normal expansion of telephone and other engineering plant, and were not in the nature of national or unemployment relief works.

The Department's activities are governed very largely by the requirements of the public for services, so much so that during the depression period the number of discontinued telephone services exceeded the number of applications for new services. This resulted in throwing spare much of the departmental plant, and, as conditions have improved gradually since 1932, a considerable part of this spare plant has been reabsorbed for the new services. The effect has been that the work has been performed principally by the permanent staff, and the necessity for the employment of temporary skilled or unskilled labour to any great extent has not arisen since the end of the 1929-30 financial year.

Apart from the normal extensions of telephone services, there has been much activity in regard to other classes of new work, such as the provision of new broadcasting stations, trunk exchanges, automatic telephone exchanges, telephone and telegraph carrier equipment, etc., but in these cases the bulk of the labour involved was performed by permanent departmental mechanics and represented a comparatively small portion of the total cost of the works.

The following figures, showing the cost of "new works" and the labour portion for each of the years under review, may be of interest:

| Financial year ended June 30th | Total cost of "new works" £ | Cost of labour portion £ |
|-----------------------------------|-----------------------------------|--------------------------------|
| 1929..... | 2,783,473 | 1,447,856 |
| 1930..... | 2,547,526 | 1,298,225 |
| 1931..... | 1,249,924 | 674,876 |
| 1932..... | 432,064 | 138,250 |
| 1933..... | 455,617 | 191,340 |
| 1934..... | 851,207 | 301,327 |

RIVER MURRAY WORKS.

I.

The River Murray Waters Act came into force as from January 31st, 1917, and provided for the construction of 26 weirs and locks on the Murray River, 9 weirs and locks in the Murrumbidgee River, a storage in the Upper Murray (now called the Hume

Reservoir) and the Lake Victoria Storage. One of these works—viz., weir and lock No. 1, at Blanchetown—was under construction by the State of South Australia at the date the River Murray Waters Act came into force, the foundation stone having been laid on June 5th, 1915.

(a) At the beginning of 1929, eight weirs and locks in the Murray River and the Lake Victoria Storage had been completed; the Hume Reservoir and weirs and locks Nos. 4 and 6 were under construction.

Since that date, the construction of weirs and locks Nos. 7 and 8 were undertaken and with Nos. 4 and 6 and the Hume Reservoir (to a capacity of 1,250,000 acre-feet of water) have been completed.

(b) The works at present in course of execution are weir and lock No. 15 and a roadway over the Hume Dam.

(c) A proposal is nearing completion whereby the construction of the remaining 13 weirs and locks in the Murray River and the 9 weirs and locks in the Murrumbidgee River will be abandoned and the following works will be put in hand :

1. A diversion weir in the Murray River, at Yarrawonga, to divert water into New South Wales and Victoria for irrigation, stock and domestic purposes. Estimated cost of work, including land resumptions, £380,000.

2. Two weirs in the Murrumbidgee River to divert water for the flooding once a year of about 200,000 acres in New South Wales to improve the growth of pastures. Estimated cost, £220,000.

3. Barrages in the vicinity of the mouth of the Murray River for the purpose of preventing undue salinity in the lower river through the influx of water from the sea and to assist in keeping the lower river at the height necessary to enable settlers in that area to irrigate their blocks by gravitation through the embankment sluices. Estimated cost, £549,000.

II.

The construction of the River Murray works are provided for in an Agreement between the Governments of the Commonwealth and the States of New South Wales, Victoria and South Australia, which was ratified by Acts passed by the four Parliaments concerned.

The Agreement provided for the creation of a Commission called " The River Murray Commission ", which is charged with the duty of giving effect to the Agreement and the ratifying Acts.

The powers and functions of the River Murray Commission are, briefly :

Approval of designs and estimates furnished by the respective construction authorities;

Supervision of works (the order in point of time of particular works, rate of progress, method and extent of maintenance of works);

Finance : Annual estimates of expenditure; calling up of contributions from the contracting Governments; payments to the three constructing authorities; receipt and distribution of tolls;

Gauging of the Murray River and its tributaries;

Control over diversions in the three States;

Distribution of stored water in accordance with the provisions of the Agreement;

Prescription of tolls (tolls received are to be used towards cost of lock-keeping and the maintenance of navigation works under the Acts).

In accordance with the Agreement, the construction of the works is carried out by the Governments of New South Wales, Victoria and South Australia; the constructing authorities appointed under the various State Acts being :

New South Wales : Minister for Public Works;
Victoria : State Rivers and Water Supply Commission;
South Australia : Commissioner of Public Works.

The works have been carried out direct by the constructing authorities.

Maintenance, operation and control of any work are to be performed by the Government which constructed the work.

III.

The cost of construction of the River Murray works is shared equally by the four contracting Governments. The cost of maintenance, etc., is shared equally by the three State contracting Governments, the Commonwealth being freed from any obligation in this regard.

Expenditure is charged to the ordinary budget of the Government concerned, the amount being provided from revenue or loan funds, according to the decision of the individual Government.

Contributions towards the estimated cost of the works are called up from the contracting Governments periodically, usually monthly, by the River Murray Commission. The Commission makes advances to the constructing authorities and the amount expended by those authorities is reimbursed to them by the Commission.

IV.

An approximate estimate of the allocation of the cost of these works is : material, 50%; labour, 50%.

V.

It is estimated that the proposed works referred to in I(c) will provide employment directly and indirectly for a thousand men for approximately five years.

As regards the effect of the works on economic activities, although the discharge of the Murray River last season was some eight million acre-feet (representing not a " low " but a " mean " year), it was only the stored water in Lake Victoria and the Hume Reservoir, together with that retained by the locks and weirs, which saved the whole of the irrigation settlements along the river from practically complete failure, both by providing water at a sufficient level when it was required and by preventing the seepage of salt from the soil. The life of every irrigation settlement on the Murray River in South Australia is dependent on these storages.

The area in New South Wales which can be commanded by gravitation from the Murray River has been estimated at upwards of five million acres, and the bulk of this area can be served by a canal offtaking above the proposed Yarrawonga weir. To command the balance, a second diversion weir will be required upstream of Yarrawonga. The water available will be sufficient to supply only a small portion of the area which can be commanded, and the principle which is being followed is to allocate to landholders sufficient water to permit of the irrigation of a portion of their holdings from, say, 1 acre in 6 to 1 acre in 25, dependent upon the size of the holding. Works are at present in progress by the State authorities to develop over a million acres of this area, the object being the growth of fodders under irrigation for the feeding of stock and not for any extension of fruit-growing until the marketing position is more assured.

Similarly, in Victoria, the area to be served by the Yarrawonga weir is approximately 400,000 acres, of which about 90,000 acres will be actually irrigated; to be used mostly for lucern and sown pastures to permit of an extension of lamb-raising and dairying.

The flooding of the land once a year which will result from the construction of the two weirs in the Murrumbidgee River will stimulate the growth of herbage, etc., and enhance the carrying capacity of upwards of 200,000 acres in the vicinity of the weirs.

On the lower river, between Mannum and Wellington, there is an area of 15,500 acres under intense culture by irrigation, principally for dairy-farming, market gardening and sheep-fattening, the value of the products from which has been stated to be £200,000 per annum. On several occasions, the settlers on these areas have been involved in a loss of production, estimated at from 25 to 50%, due to the fact that they have not been able to utilise the river water, owing either to its being too saline or too low to gravitate through the sluices in the levees which protect their blocks from flood. Other interests concerned in the maintenance of a supply of fresh water in the lower river are the railways, the towns of Mannum and Murray Bridge, and the farming country supplied from the Murray Bridge water system. Also the riparian landholders around Lakes Alexandrina and Albert represent that, owing to the influx of salt water, the reeds, which formerly had a high food value for stock on the lake frontages, had been destroyed, and that the water was useless for stock purposes. The purpose of the barrages in the vicinity of the Murray mouth is to overcome the disabilities suffered by the foregoing settlers and landholders.

New South Wales

WATER CONSERVATION AND IRRIGATION COMMISSION.

The details in regard to the information sought are set out in schedule form (reproduced below), such schedule comprising works as follows :

- (a) Undertaken since July 1st, 1928, and now completed;
- (b) Now in course of execution;
- (c) The execution of which is at present in contemplation or schemes for which are in preparation.

Furthermore, the letters in the first column of the schedule are intended to indicate the classification as corresponding to the same lettering in the schedule attached to the Circular Letter of March 7th, 1934.

In regard to the principal administrative methods attaching to these works, the following information is supplied :

I. NATIONAL WORKS.

These are constructed by the Commission on behalf of the Government, funds being provided from loan and revenue votes and/or unemployment relief funds. Generally, these works are designed and constructed for the improvement of rivers and for conservation of water or its better distribution. After completion, they are administered and maintained by the Commission.

2. (a) WATER TRUSTS.

(b) ARTESIAN BORE TRUSTS.

These works are carried out by the Commission, generally for the more beneficial use and more equitable distribution of water to holdings embraced within the prescribed limits of a district constituted under the provisions of the Water Act, 1912-1930.

Generally, the works are undertaken as a result of a petition from the interested landholders who will receive benefits by the construction of the works. The funds for the construction of these works are provided from loan vote or unemployment relief fund. The capital cost of works is repayable, with interest, over a defined period. Upon completion of the works, the same are handed over to the trustees, who are responsible for the administration of same and for the levying of rates for the production of revenue from year to year to cover the following items :

- (a) Instalments for repayment of capital cost, with interest, over a defined period;
- (b) Repairs and maintenance of works;
- (c) Water distribution;
- (d) Sundry incidental charges.

3. SHALLOW BORES.

Where required by a landholder, the Commission arranges for the sinking of a shallow bore on individual holdings and the cost of such work is repaid by the landholder in instalments distributed over a period of years.

4. CONSTRUCTION WORKS ON THE MURRUMBIDGEE IRRIGATION AREAS.

New works or additional works are carried out by the Commission under the provisions of the Irrigation Act, 1912-1931. Funds are provided from loan vote for capital cost of works, and the interest on such cost is repayable from the revenue received in the administration of the Murrumbidgee irrigation areas.

From time to time, substantial works may be carried out in regard to the renewal, maintenance or repairs of existing works. Such works are carried out by the Commission from funds provided under the Industrial Undertakings Act.

5. WYANGALA DAM.

Wyangala Dam and incidental works are being constructed by the Commission as the headworks for the Lachlan River Water Conservation Scheme. The necessary funds are being provided by the British Government, under the Migration Agreement. This work, on completion, will be a national work.

6. DOMESTIC AND STOCK AND/OR IRRIGATION DISTRICTS.

These works are constructed to ensure a regular supply of water for domestic and stock purposes and/or irrigation of a portion of existing holdings within districts constituted under the provisions of the Water Act. The necessary funds are provided by the Government from loan vote. Upon completion, the works are administered by the Commission, and charges are levied on each landholder within the district commensurate with the benefit received, so that the total revenue shall be sufficient to meet the cost of supply of water under the following headings :

- Interest on capital cost of works;
- Maintenance and repairs;
- Water distribution;
- Administration.

Generally speaking, the whole of the works constructed by the Commission are in connection with the conservation of water resources and the more equitable distribution of the water flowing in rivers and streams within the State.

WATER CONSERVATION AND
SCHEDULE OF WORKS { I. Works
II. Works
III. Works

| WORK | | | | |
|------------------------------------|---|---|------------------|---|
| Classification | Name | Purpose | Area benefited | Nature |
| (1) | (2) | (3) | (4) | (5) |
| <i>I. Works undertaken since</i> | | | | |
| (C) | Benanee | Domestic and stock water supply | Acres 267,500 | Pumping station and channels |
| (F) | Collarenebri | Town water supply | 55 | Pumping station, reservoir and pipe lines |
| (C) | Gunbar | Domestic and stock water supply | 580,320 | Earth channels and incidental structures |
| (C) | Nimming-Pollen | Domestic and stock water supply | 163,420 | Earth channels, incid. struct. and regulator |
| (C) | Little Merran Creek | Domestic and stock water supply | 157,440 | Earth channels, incid. struct. and regulator |
| (C) | Torrigan Muggabah and Merrimajee Creeks | Domestic and stock water supply | 170,240 | Cuttings and regulator |
| (C) | Pomona | Irrigation | 1,210 | Pumping plant and channels |
| (C) | Bungunyah-Koraleigh | Irrigation | 1,785 | Pumping plant and channels |
| (d) | Dubbo Weir | River improvement | — | Concrete weir |
| (d) | Forbes Weir | River improvement | — | Concrete weir |
| (C) | Gunningbar Ck. Bridge | Public traffic over works | — | Timber beam bridge |
| (C) | Gunningbar Ck. Regulator | Control flow in cutting | — | 18' x 18' Stony sluice |
| (d) | Timber Groyne Warren | River improvement | — | Pile and timber sheathing |
| (C) | Warren Weir | Diversion of water | — | Pile stone crib weir replaced |
| (d) | Warren Recreation Weir | River improvement | — | Timber stone fill weir |
| (C) | Drilool No. 2 (additional works) .. | Stock water | 96,690 | Artesian bore |
| (C) | Boonaldoon | Stock water | 67,450 | Artesian bore |
| (C) | Tooloona No. 2 (additional works) .. | Stock water | 82,185 | Artesian bore |
| (C) | Terrigal (distributing works only) .. | Stock water | 13,320 | Artesian bore |
| (C) | Currambah No. 2 (additional works) | Stock water | 95,669 | Artesian bore |
| (C) | Milroy | Stock water | 44,610 | Artesian bore |
| (C) | Avon Downs | Stock water | 42,798 | Artesian bore |
| (C) | Oaks Bore (distributing works only). | Stock water | 13,280 | Channels and incidental structures |
| (C) | Shallow Bores | Stock water | — | Shallow bores pumping supplies |
| (C) | Murrumbidgee Irrigation Areas : | Light and power | — | Electrical construction. Power house and reticulation |
| (C) | | Irrigation | — | Canals, regulators and drainage |
| (C) | | Administration | — | Buildings |
| | | | | Total... |
| <i>II. Works in course</i> | | | | |
| (C) | Wyangala Dam | Head storage, Lachlan River Water Conservation Scheme | — | Concrete dam |
| (C) | Poon Boon | Stock water | 32,985 | Earth channels, incid. struct. and regulator |
| (C) | Wakool | Domestic and stock water supply and irrigation | 536,724 | Diversion weir. Channels and incidental structures |
| (C) | Benerembah | Domestic and stock water supply and irrigation | 121,739 | Earth channels and structures |
| (C) | Tabbita | Domestic and stock water supply and irrigation | 6,335 | Earth channels and structures |
| (C) | Florida No. 2 | Stock water | 53,440 | Artesian bore |
| (C) | Murrumbidgee Irrigation Areas : | Supply and drainage channels | — | Earthworks and structures |
| (C) | | Canning factory | — | Cold storage and extension |
| (C) | | Power station | — | Reticulation and transmission |
| | | | | Total... |
| <i>III. Works in Contemplation</i> | | | | |
| (C) | Berriquin | Domestic and stock water supply and irrigation | 606,000 | Earth channels and structures |
| (C) | Mulwala Canal | Domestic and stock water supply and irrigation | — | Earthworks and structures |
| (C) | Jemalong | Domestic and stock water supply and irrigation | 166,554 | Earth channels, structures and weir |
| (C) | Wyldes Plains | Domestic and stock water supply and irrigation | 50,439 | Earth channels and structures |
| (d) | Forbes Goolagong Weirs | River improvement | 46,540 | 9 weirs |
| (d) | Hillston Booligal Weirs | River improvement | 161,100 | 12 weirs |
| (C) | Ivanhoe (Willandra) | Domestic and stock water supply | 2,000,000 | Earth channels |
| (C) | North Murrumbidgee | Domestic and stock water supply and irrigation. | 1,000,000 | Weir, channels, structures |
| | | | | Total... |

Note.—In the above schedule, the notation in column (1) is in relation to classifications as follows :
 (C) Complete agricultural land reclamation (drainage, irrigation, construction of dwelling-houses and various new buildings, or establishment of
 (d) Canals and other inland waterways (including improvement work on rivers, defensive work against floods, etc.). (Work not already included
 (f) Provision of drinking-water supplies and sewage disposal. (Work not already included under (C).)

IRRIGATION COMMISSION.

*undertaken since July 1st, 1928, and now completed;
in course of construction;
in contemplation or preparation.*

| Cost | | | | | |
|--|--|-----------------|--------------|---|--|
| Wages and salaries, other than contract (6) | Plant, materials, equipment and other charges (7) | Contract (8) | Total (9) | Administration (10) | Remarks (11) |
| <i>July 1st, 1928, and now completed.</i> | | | | | |
| £ 4,827 | £ 40,953 | £ 28,026§ | £ 73,806* | Water trust | } § Contract mostly wages. } * Total cost, £131,719. } Portion since July 1st, 1928. |
| 604 | 1,691 | — | 2,295 | Water trust | |
| 15,566 | 13,912 | 22,469§ | 51,947 | Water trust | } § Contract mostly wages. } § Contract mostly wages. |
| 154 | 259 | 1,516§ | 1,929 | Water trust | |
| 919 | 1,003 | 1,017 | 2,939 | Water trust | Cost only relates to additional works. |
| 5 | 218 | 768 | 991 | Water trust | Cost only relates to additional works. Contract approximately 50% wages. |
| 2 | — | 1,561 | 1,563 | Water trust | } Cost only relates to additional works. |
| 1,725 | 1,129 | 830 | 3,684 | Water trust | |
| 2,118 | 3,095 | — | 5,213 | National work | } Maintained by local council. } Wages approximately 50%. |
| 1,926 | 2,288 | — | 4,214 | National work | |
| 42 | 16 | 1,128 | 1,186 | National work | } Built to replace old regulator destroyed. |
| 1,504 | 1,367 | — | 2,871 | National work | |
| 2,880 | 4,388 | — | 7,268 | National work | } Maintained by local council. |
| 240 | 230 | 202 | 672 | Bore water trust | |
| 3,218 | 4,091 | 878 | 8,187 | Bore water trust | } Depth, 2,211 feet. Flow, 464,396 gallons per diem. } Depth, 3,005 feet. Flow, 729,655 gallons per diem. |
| 2,464 | 3,428 | — | 5,892 | Bore water trust | |
| 55 | 414 | — | 469 | Bore water trust | } Depth, 3,664 feet. Flow, 1,079,776 gallons per diem. |
| 2,439 | 2,436 | 189 | 5,064 | Bore water trust | |
| 3,189 | 3,615 | 787 | 7,891 | Bore water trust | } Depth, 3,025 feet. Flow, 841,772 gallons per diem. } Depth, 3,689 feet. Flow, 667,440 gallons per diem. |
| 2,057 | 3,022 | — | 5,079 | Bore water trust | |
| 366 | — | 216 | 582 | Bore water trust | } Depth, 2,444 feet. Flow, 309,517 gallons per diem. |
| 124,159 | 126,671 | — | 250,830 | Private landholders (repayment on terms) | |
| 31,137 | 48,788 | — | 79,925 | | } 835 bores sunk from July 1928 to June 1934. Total depth, 217,435 feet. |
| 109,948 | 119,077 | — | 229,025 | | |
| 1,344 | 2,851 | — | 4,195 | | |
| £313,188 | £384,942 | £59,587 | £757,717 | | |
| <i>of Construction.</i> | | | | | |
| £ 506,357 | £ 662,830 | £ — | £ 1,169,187 | National work | Total estimated cost, £1,352,000. |
| 68 | 326 | — | 394 | Water trust | } Additional works only. } Contracts mostly wages. Total estimated cost, £420,000. |
| 38,737 | 81,432 | 29,112 | 149,281 | Domestic and stock water supply and irrigation district | |
| 9,811 | 12,621 | 13,881 | 36,313 | Domestic and stock water supply and irrigation district | } Contracts mostly wages. Total estimated cost, £54,000. |
| 317 | 570 | 1,741 | 2,628 | Domestic and stock water supply and irrigation district | |
| 1,017 | 991 | — | 2,008 | Domestic and stock water supply and irrigation district | Contracts mostly wages. Total estimated cost, £4,470. |
| 12,000 | 18,410 | — | 30,410 | | |
| 4,000 | 5,000 | 23,000 | 32,000 | | |
| 5,000 | 14,000 | — | 19,000 | | |
| £577,307 | £796,180 | £67,734 | £1,441,221 | | |
| <i>or Preparation.</i> | | | | | |
| £ 219,000 | £ 219,000 | £ — | £ 438,000 | Domestic and stock water supply and irrigation district | } These figures are approximate only, as final estimates are not yet available. |
| 660,000 | 540,000 | — | 1,200,000 | Domestic and stock water supply and irrigation district | |
| 75,000 | 75,000 | — | 150,000 | Domestic and stock water supply and irrigation district | } These figures are approximate only, as final estimates are not yet available. |
| 20,000 | 10,000 | — | 30,000 | Domestic and stock water supply and irrigation district | |
| 6,500 | 18,500 | — | 25,000 | Water trust | } In preliminary stage only. |
| 9,000 | 26,000 | — | 35,000 | Water trust | |
| 75,000 | 75,000 | — | 150,000 | Dom. and stock water sup. dist. | } In preliminary stage only. |
| 75,000 | 75,000 | — | 150,000 | Domestic and stock water supply and irrigation district | |
| £1,139,500 | £1,038,500 | £ — | £2,178,000 | | |

entire new settlements, country roads and other works connected with land settlement).
under (c.)

National works are generally constructed for the purpose of the better control of the flow of water in natural channels.

The construction of works for trust districts and artesian bore districts tends to a more regular supply of water through the headworks of the district and assures an equitable distribution of the available supplies to the individual holdings within such district.

The construction of shallow bores is generally undertaken in districts where there is otherwise a very limited or negligible supply of water available to the pastoralists and, accordingly, the provision of a bore should afford an assured water supply, with the attendant advantage of security against loss of stock by drought.

Domestic and stock and/or irrigation districts are constituted without interfering with the existing tenure of holdings within such districts. Nevertheless, with an assured water supply for domestic and stock purposes and/or irrigation, there will be a definite tendency towards the voluntary subdivision of large holdings, with corresponding closer settlement within such districts. In this connection, it should be noted that, where water is supplied for irrigation, the amount is limited so as to provide for a relatively small proportion of each holding to be irrigated, and it is provided that the function of such irrigation will be for the cultivation of fodder to the exclusion of rice and, likewise, to the exclusion of orchards on a commercial scale.

It is considered that the practice of irrigation within these districts, with the assured water supply for stock purposes, will stabilise the pastoral industry generally, in so far as the chance of excessive loss will be remote in drought conditions hitherto prevailing; furthermore, as already pointed out, it is expected that closer settlement will be achieved by the voluntary subdivision of large estates and, generally, the practice of irrigation, associated with such closer settlement, will tend to the necessity for a substantial increase in employment in the rural industry.

The construction of the Wyangala Dam, as already indicated, represents the head storage in connection with the general scheme for the Lachlan River development. Apart from fulfilling a national function in the better control of the flow throughout the length of the Lachlan River, the provision of this storage reservoir will make possible the supply of water for domestic and stock and/or irrigation purposes to districts comprising considerable areas which could not hitherto have been supplied with water from the Lachlan Valley.

The works in connection with the Murrumbidgee irrigation areas have been constructed for the intensive development of a very considerable area under horticultural, viticultural, dairying and pastoral industries.

FORESTRY COMMISSION.

1. The Forestry Commission has, with the assistance of unemployed relief funds, undertaken the work of regeneration, freeing, thinning, road construction and repairs, including culverts and bridges, firebreak construction, erection and repair of telephone lines and fire lookouts, erection and repair of buildings (workmen's cottages) and fences, the eradication of insect pests and noxious weeds within State forest areas. The work performed may be regarded generally as of a permanent nature and is being continued.

2. Forestry works of the nature mentioned under 1 were commenced in 1928, but suspended during 1929. From 1930 to the present time, such works have been steadily continued.

3. Funds have been made available by the Unemployed Relief Council and conditions of employment have been determined by the Government through the Department of Labour and Industry.

4. The expenditure since January 1st, 1928, is as follows :

Unemployed relief funds.

| 1928 | 1930 | 1931 | 1932 | 1933 | 1934 |
|---------|---------|--------|--------|---------|---------|
| £15,000 | £19,822 | £3,252 | £7,782 | £25,109 | £29,732 |

1./I./1934-30./VI./1934

It can be safely said that at least 80% of this amount has been expended on labour, the balance, 20%, on materials, the whole of the latter expenditure being confined to materials procurable locally.

5. The works being undertaken on State forests will have the effect of improving and protecting the existing stands of timber, perpetuating supplies, facilitating exploitation, maintaining steady employment for bush workers, and stabilising the sawmilling industry.

MAIN ROADS DEPARTMENT.

I. *Brief Description of Public Works : Roads and Bridges.*

The Department of Main Roads functions under a Main Roads Act passed in 1924, and it is charged with the duty of maintaining and, as far as possible, improving the main-roads system of New South Wales. It will be realised that the work in this connection is continuous, and sections of main road, and bridges, are being improved upon or constructed as the finances available to the Department permit. The object is to bring each road gradually to a state which can be considered as reasonable for the volume and type of traffic using the road and, having reached this standard, to keep the road in that condition. The main roads of the State have been classified under three principal headings, as follows :

(a) *State Highways.* These are the most important roads connecting up with the principal routes in other States or proceeding from the coast to the interior of the State. The Department is wholly responsible for the works carried out on this first class of road;

(b) *Trunk Roads* are roads of secondary traffic importance and form with the State highways, a skeleton highway system throughout the State;

(c) *Main Roads* comprise the remaining roads which are of sufficient importance to warrant assistance by the State but on which the traffic is principally of a local character.

In addition to the main roads, the Act provides for the proclamation of certain roads as developmental roads. These roads are intended primarily to promote or conserve settlement and generally act as feeders to existing main roads or to railways or take the place of railways in providing transport means for the marketing of primary products.

It is considered that an idea of the extent of the work undertaken since 1929 can best be gained from a statement of the expenditure by the Department during the past five years. The following statement therefore sets out the Department's total expenditure dissected under the headings of construction, maintenance, payment of interest, etc.

| Year | Construction of main roads | Construction of developmental roads | Maintenance and minor improvements | Interest and loan repayment | Administrative and miscellaneous charges | Total |
|----------------------------|----------------------------|-------------------------------------|------------------------------------|-----------------------------|--|-----------|
| | £ | £ | £ | £ | £ | £ |
| 1929-30..... | 2,420,672 | 357,666 | 1,315,283 | 324,769 | 106,993 | 4,525,383 |
| 1930-31..... | 1,371,997 | 212,723 | 848,834 | 325,412 | 91,172 | 2,850,138 |
| 1931-32..... | 423,438 | 41,413 | 857,098 | 305,548 | 78,416 | 1,705,913 |
| 1932-33..... | 725,082 | 58,174 | 1,169,418 | 286,648 | 73,553 | 2,312,875 |
| 1933-34 ¹ | 925,199 | 113,979 | 1,109,123 | 457,907 | 67,438 | 2,673,646 |

¹ Subject to audit.

II. *The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in (I) and Any Legal Provisions relating to Such Work.*

It should be understood that New South Wales is divided into approximately 320 local government areas styled as "municipalities" or "shires". Generally speaking, the municipalities include the more populous centres, whilst the shires comprise rural areas. It is the function of these local governing authorities to maintain the roads within their areas and to build new roads as settlement requires. With the advent of the motor-vehicle, however, it became impossible for local authorities to provide sufficient funds to keep in order the roads subjected to heavy fast-moving motor traffic. As a result, the taxation derived from motor-vehicles was devoted to expenditure on main roads, and the Main Roads Act provides that the Department shall assist local councils in the upkeep of these roads. The general financial arrangements relating to the distribution of these funds is set out in reply to the next question.

In the execution of the works on main roads, it is the Department's custom to entrust works to local authorities wherever the authority has a sufficient organisation and is willing to carry out the work. In some cases the local authorities complete the works by their own day-labour organisations, whilst in others tenders are invited and the works performed by contract. Where it is preferable for the Department to carry out work itself, similar arrangements apply, the Department maintaining its own day-labour organisation for the performance of some works and calling tenders in other cases. It is found that the distribution of work between the Department's own organisation, contractors' forces and councils maintains a healthy rivalry and tends to the completion of works in the most economical fashion.

The maintenance of main roads, except in isolated instances, is carried out by day labour either by the Department directly or by councils, because it is generally impossible to specify precisely the work which is to be performed and so call tenders. On this work, however, it is customary to secure supplies of materials, plant and tools and in some cases to have the haulage work performed under contract.

III. *The Principal Methods employed for financing.*

Apart from the funds provided under the Main Roads Act, local authorities are empowered, under a Local Government Act, to levy annual rates on the unimproved capital value of lands within their areas. These rates are used for public works and services, and a substantial portion is devoted to the upkeep and improvement of roads. For the main roads, however, special taxes are imposed on motor-vehicles, according to the net weight of each vehicle, and these, coupled with a portion of the tax levied by the Commonwealth Government on petrol, are used to assist local authorities in both construction and maintenance works.

For administrative purposes, the State is divided into two parts—the County of Cumberland and the country. In the former area, all local authorities are required to pay a levy determined annually to a County of Cumberland Main Roads Fund. This contribution is then amalgamated with the vehicle and petrol taxes, already referred to, and from the proceeds the Department pays the full cost of all works carried out. In the country, however, the Department assists councils according to the class of road on which work is required. Thus, on State highways the Department pays the full cost of all works, whilst on trunk roads two-thirds the cost is paid (except in the case of new bridges, where the full cost is paid), and on main roads the Department pays one-half the cost (except in the case of new bridges, where three-fourths the cost is borne by the Department).

On developmental roads, the Department is responsible only for works of new construction, the councils being required to maintain all roads built in reasonable condition

subsequent to their construction. The funds for developmental road construction are provided by an annual transfer of £135,000 from the vehicle and petrol taxes made available for country roads. Of this sum, approximately £35,000 per annum is required for the payment of interest, exchange and sinking-fund charges on loans spent in the past on construction works, so that there thus remains roughly £100,000 per annum for expenditure on new works.

Immediately following the passage of the Main Roads Act in 1924, it was necessary to borrow substantially, in order that a rapid improvement of the main-roads system could be made. This policy of borrowing continued for about four years, but, as the worst of the roads were placed in order, the amount of loans was reduced until, at present, it is not the practice to spend any loan money on either main or developmental roads. The Department, however, is responsible for the payment of interest and other loan charges on all loan money borrowed in the past. In this way the general budget of the State is relieved of charges for roads and, in effect, the motorist, who benefits most by road maintenance and construction, is required to meet the annual loan charges. It should not be concluded, however, that there are not any road works still requiring to be undertaken which would warrant borrowing; the position is that the funds available to the Department are so encumbered by obligations for maintenance and payment of interest on past loans that it would be imprudent to charge the funds further by increased borrowing. As additional revenues become available, however, it is probable that additional loans will be raised for main and developmental road improvement.

IV. An Estimate, as far as is possible, of the Allocation of Expenditure on the Execution of the Public Works referred to in I, as between Materials and Equipment provided by National or Foreign Industries, on the One Hand, and Labour—that is to say, Wages and Miscellaneous Social Expenditure—on the Other.

It is found from experience that approximately 50% of the expenditure on road works is required for the payment of wages of employees engaged on the works. The remaining 50% is expended in the purchase of materials, the haulage of materials, the use of plant, and miscellaneous charges, such as insurance of employees, provision of tools, etc. It is to be noted, however, that practically the whole of the materials, tools, plant, etc., used on roads are produced locally and so, eventually, the money spent on roads is used in payment for local labour, either in the actual maintenance or construction of roads themselves or in the production of materials required therefor. It would not be unsafe to say that 95% of the money paid out by the Department is eventually absorbed in the payment of wages or other charges for local industries.

V. The Government's Opinion with regard to the Effects obtained or expected from the Execution of the Public Works referred to in I on the Resumption of Economic and Industrial Activities and on Unemployment.

As mentioned above, approximately 95% of the expenditure on roads is used in the employment of local labour or other items in local industries. The road work is therefore ideal in creating a chain of industry, as each job undertaken on the road involves activity in several other subsidiary industries. Apart from this aspect, however, there is gradually being set up a regular road-making industry with employees specialising in the various types of road work. The Department has found that men unfamiliar with road work have, after several years of experience, become as valuable as skilled tradesmen in other industries. For example, plant operators on road works and men engaged on concrete and other works are required to be as skilful at their work as, say, motor mechanics in another section of the road transport group.

It has been proved that the construction of good roads saves the expenditure of

motorists' money on petrol, tyres and repairs costs. It therefore follows that, if the expenditure on one of the items of cost of motor transport is increased with more than a corresponding saving on other items, the industry in the aggregate must show a net gain. Moreover, the expenditure on road works is wholly internal expenditure, whilst the disbursements on account of fuel and original vehicles are, in the case of this State, almost wholly sent abroad.

As far as the State finances are concerned, the loan expenditure is wholly reproductive, because the revenues are charged with the full cost of interest, exchange and sinking fund.

The general conclusion to be drawn is that road work is very valuable in creating and maintaining industrial activity or, in other words, it is a good means of preventing and/or relieving unemployment. It is apparent, moreover, that it is better for the State to spend money on local labour for roads than on imported essential items of transport services. It pays also to borrow for roads if repayment can be guaranteed from road revenue. This is particularly so where the loan money is raised on the local market.

DEPARTMENT OF AGRICULTURE.

REPORT ON MAIN PUBLIC WORKS.

I. *Brief Description of Works.*

(a) *Undertaken since January 1st, 1929, and completed.*

Construction of, and Additions to, Public Buildings, etc. : Expenditure from Loan Funds.

| Location | Nature of work | Cost | | |
|--------------------------|---|---------|----|----|
| | | £ | s. | d. |
| Country railway stations | 43 grain elevators and additions | 514,421 | 15 | 3 |
| Sydney | New office building, Department of Agriculture | 150,998 | 1 | 11 |
| Richmond | Chemical laboratory, Hawkesbury Agricultural College | 15,548 | 5 | 1 |
| Country experiment farms | Sundry buildings, additions and improvements | 8,432 | 7 | 5 |
| Leeton | Establishment of Rice Research Station, sundry buildings and improvements | 2,949 | 2 | 11 |
| Glenfield | Buildings and additions : Veterinary Research Station. | 2,762 | 17 | 0 |
| Sydney | Buildings, etc.; insectary; Maiden Memorial Pavilion; glass-house, etc., botanic gardens..... | 2,060 | 16 | 4 |

Expenditure from Unemployment Relief Funds.

| | | | | |
|--------------------------|--|--------|----|----------------|
| Country railway stations | 3 grain elevators | 30,835 | 16 | 0 ¹ |
| North Coast | Erection of dips and yards, tick quarantine area | 5,000 | 0 | 0 ² |
| Queensland Border | Fencing, tick quarantine area | 1,091 | 4 | 2 ¹ |
| Sydney | New lavatory block, etc., botanic gardens | 2,005 | 0 | 0 ¹ |
| Sydney | Painting and renovations, botanic gardens | 1,088 | 0 | 0 ¹ |
| Sydney | Dressing sheds, Government domain | 636 | 10 | 6 ¹ |
| Country experiment farms | Additions and repairs to buildings, etc..... | 2,989 | 1 | 6 ¹ |
| Various | Erection of silos on dairy farms, and additions | 200 | 17 | 5 ¹ |

Grain Elevators.

On October 4th, 1916, an enabling Act entitled the "Grain Elevator Act, 1916", was passed by the New South Wales Parliament. This Act provided for the erection of terminal elevators at the ports of Sydney and Newcastle and not more than 200 grain elevators at country railway stations.

The Minister for Agriculture was vested with powers to carry out the work in accordance with the Public Works Act, 1912.

¹ State unemployment relief funds.

² Commonwealth unemployment relief funds.

From the date of the enactment mentioned to 1929, construction work progressed to a point where a terminal elevator had been completed at Sydney and 93 grain elevators had been erected at country railway stations, providing in all a storage capacity of 22,370,000 bushels.

(a) *Work undertaken and completed since 1929.*

Since 1929, the Department of Agriculture has undertaken and completed the construction of a further 46 grain elevators at country stations, thereby increasing the storage capacity by 3,980,000 bushels and providing a State system for bulk handling of wheat comprising one terminal elevator and 139 elevators at 138 country railway stations, with a total storage capacity of 26,350,000 bushels.

(b) *Work in Course of Execution.*

In addition to the completed works mentioned, a current construction programme provides for 11 additional country grain elevators; extensions to 12 existing country grain elevators; additions to the terminal elevator, Sydney; and the erection of a terminal elevator at the port of Newcastle. These works, with the exception of the terminal elevator at Newcastle, will be completed by January 1935. The terminal at Newcastle will be finished about October or November 1935.

The additions to 12 existing country elevators, the erection of 4 new country elevators, and the foundation for the terminal elevator at Newcastle are being built by the Department of Agriculture, under the day-labour system. The remaining works, including the main structure at Newcastle, are being carried out for the Department under the contract system.

(c) *Work in Contemplation.*

On June 15th, 1934, the New South Wales Government authorised a further programme embracing 25 new country elevators, together with 8 additions to existing country elevators.

When all the works contemplated under (b) and (c) have been completed, the system for bulk handling of wheat will comprise :

| | Storage capacity Bushels |
|--|-----------------------------|
| 1 terminal elevator at Sydney | 7,375,000 |
| 1 terminal elevator at Newcastle | 850,000 |
| 175 country grain elevators at 174 country railway stations | 25,370,000 |
| Total... | 33,595,000 |

and the objective of the Government to provide bulk handling facilities for an average State harvest will be within measurable distance of attainment.

II. *Administrative Methods.*

As already indicated, the work has been, and will be, carried out partly by contract and partly by day labour.

The work is supervised by officers of the Department of Agriculture.

Award rates of pay and conditions of employment, as prescribed by Commonwealth and State industrial arbitration courts, govern the various classes of labour employed.

III. *Principal Methods employed for financing the Works.*

With the exception of the sum of £30,835 16s., these works have been financed from loan funds raised by the Commonwealth and appropriated by the State under Acts of Parliament in conformity with the practice of obtaining the sanction of the Legislature for the raising of loan funds for the carrying-out of permanent and reproductive works.

IV. *Allocation of Expenditure.*

It is estimated that the allocation of expenditure on the works referred to in I was :

| | | | |
|------------------------------|------|---|---------------|
| Material and equipment | 70% | } | 99% national |
| | | | 1% foreign |
| Labour | 30% | | 100% national |
| | 100% | | |

V. *Effects obtained from the Execution of these Public Works on the Resumption of Economic and Industrial Activities, and on Unemployment.*

Certain direct benefits were obtained by the introduction of bulk handling, as briefly summarised hereunder :

(a) The elimination of most of the corn-sacks, with consequent saving to the farmers.

(b) Protection of the grain against damage by pests and weather.

(c) Saving in marine freight.

(d) The establishment of an improved and independent trading basis for farmers, in that negotiable instruments or warrants which have almost acquired the status of currency are issued for wheat delivered to the silos, whilst, at the same time, the equivalent of an insurance cover is provided—the State accepting the responsibility for the wheat while stored in the grain elevators. The effect is to make the farmers more or less independent of intermediate agencies. Warrants may also be used as security for obtaining temporary financial assistance when the market is unfavourable for selling.

(e) Wheat is handled more expeditiously, effecting a saving in time to the farmers, railway system and shipowner.

The saving to the farmer may be as much as 5*d.* per bushel, varying with the price of corn-sacks.

The policy of bulk handling was not influenced by a desire primarily to create employment. Nevertheless, construction of elevators on a large scale has been an important factor in mitigating seasonal unemployment in country districts, and, latterly, unemployment due to the economic depression.

NEW OFFICE BUILDING, DEPARTMENT OF AGRICULTURE, SYDNEY.

II. *Administrative Methods followed.*

This work was originally authorised by the Department of Agriculture Building Act, 1916, which provided for the erection of a new office building with frontages to Loftus, Raphael, and Young Streets, Sydney, at a cost of £121,700.

A commencement was made on the work in 1916, and the sum of £7,000 was expended on the preparation of the site and foundations during the years 1916 and 1917.

Owing to the war and subsequent financial stringency, the matter remained in abeyance until 1929, when the Department of Agriculture Building Act, 1929, was passed. This authorised the completion of the building at an estimated cost of £175,132, which was not to be exceeded by more than 10%. In terms of this Act, a building of eight storeys was constructed by contract, of reinforced concrete, and occupation entered into during 1930.

III. *Methods employed for financing the Work.*

The cost was met from loan funds. In accordance with the arrangements entered into between the Commonwealth and the various States, loan moneys required during 1929 were raised by the Commonwealth and allocated among the Commonwealth and the States in accordance with the approval of the Loan Council, which was representative of all parties to the Financial Agreement entered into and endorsed by the respective Parliaments of the Commonwealth and the States.

These loans are secured on the assets of the Commonwealth and are covered by bonds which were issued to the lenders. The rate of interest at the time was 6%, which was subsequently reduced to 4%, requiring the issue of new bonds in Australian Consolidated Stock, repayable at varying dates from 1938 onwards.

IV. *Allocation of Expenditure.*

A rough estimate of the allocation of this expenditure would be as follows :

| | | | |
|------------------------------|------|---|----------------------|
| Material and equipment | 67% | { | 99% national |
| | | | Less than 1% foreign |
| Labour | 33% | | 100% national |
| | 100% | | |

V. *Effects on Resumption of Economic and Industrial Activities, and on Unemployment.*

The provision of central accommodation for practically the whole of the staff engaged in the metropolitan area has resulted in a considerable saving in administrative expenses, including rent of premises, which were previously leased. Moreover, it has ensured a greater degree of efficiency in the work of the Department, and has obviated considerable inconvenience hitherto experienced by members of the general public desirous of consulting with officers dealing with the different sections of departmental activities.

The construction of this building was directly designed to meet official and public requirements, and only incidentally tended to, in a small measure, relieve unemployment.

| | |
|--|--|
| CHEMICAL LABORATORY, HAWKESBURY AGRICULTURAL COLLEGE, GLENFIELD VETERINARY RESEARCH STATION, EXPERIMENT FARMS. | RICE RESEARCH STATION, LEETON INSECTARY; MAIDEN MEMORIAL PAVILION; GLASSHOUSES, BOTANIC GARDENS. |
|--|--|

II. *Administrative Methods followed.*

These works were mostly let to contractors, but a small number were completed by day labour, under the supervision of the departmental architect.

III. *Methods employed for financing the Works.*

The cost of these works was also financed from loan funds, in a similar manner to the foregoing.

IV. *Allocation of Expenditure.*

The expenditure may be roughly allocated as follows :

| | | |
|------------------------------|--------|------------------------------------|
| Material and equipment | 60/70% | } 98% national Up to 2% foreign |
| Labour..... | 40/30% | |

V. *Effects on Resumption of Economic and Industrial Activities, and on Unemployment.*

These works were not designed to relieve unemployment, but were mainly undertaken for departmental purposes, in order to cater more efficiently for the growing needs of those engaged in agricultural pursuits. Improved facilities were provided by the Department for agricultural instruction, research and experimental work by means of these works.

WORKS FOR THE RELIEF OF UNEMPLOYMENT.

II. *Administrative Methods followed.*

These works, so far as those met from State unemployment relief funds are concerned, were almost entirely carried out by day labour, and were subject to the approval of a Council consisting originally of eight members, comprising the Colonial Treasurer, the Minister for Labour and Industry, and the Minister for Local Government, and five members approved by the Governor constituted under the Prevention and Relief of Unemployment Act, 1930. By as subsequent Act—viz., the Prevention and Relief of Unemployment (Amendment) Act, 1930—this Council was reduced to three members, consisting of the Ministers of State referred to.

III. *Methods employed for financing the Work.*

The works were financed from the State and Commonwealth unemployment relief funds, and moneys derived from the proceeds of unemployment relief taxation. Under the Unemployment Relief (Tax) Act, 1930 (New South Wales), a tax of 3d. in the £ on wages, and 7½d. in the £ on net assessable income, was imposed from July 1st, 1930, subject to certain exemptions.

Under subsequent State Acts and amendments, the tax was modified as follows :

January 1st, 1931.—1s. in the £ on wages.

July 1st, 1931.—1s. on net assessable income.

October 1st, 1932.—On wages : under £2 per week : nil; £2 to £2 10s. : 1s. per week; £2 10s. to £3 : 1s. 6d. per week; £3 to £3 10s. : 2s. per week; over £3 10s. : 1s. in the £.

December 1st, 1933.—On wages and net assessable income : £2 to £2 10s. : 9d. per week; £2 10s. 1d. to £3 : 1s. 3d. per week; £3 1d. to £3 10s. : 1s. 9d. per week; £3 10s. 1d. to £3 12s. 5d. : 2s. per week; £3 12s. 6d. to £3 14s. 11d. : 2s. 1d. per week; £3 15s. to £3 17s. 5d. : 2s. 2d. per week; £3 17s. 6d. to £3 19s. 11d. : 2s. 3d. per week; £4 onwards, add 1d. per 2s. per week, or 10d. in the £ per week.

IV. *Allocation of Expenditure.*

The expenditure may be roughly allocated as follows, varying according to the nature of the work :

| | | |
|-------------------------------|--------|--|
| Materials and equipment | 50/70% | } 99% national Less than 1% foreign |
| Labour | 50/30% | |

V. *Effects on Resumption of Economic and Industrial Activities, and on Unemployment.*

These works form part of a comprehensive scheme directly designed to relieve unemployment, which has been greatly reduced in consequence. Incidentally, a large part of this expenditure was really of a capital and reproductive nature and, as far as practicable, funds were not provided from this source to meet the cost of ordinary maintenance work, which was considered to form a more appropriate charge on the Consolidated Revenue Fund of the State.

DEPARTMENT OF LABOUR AND INDUSTRY.

SHEYVILLE AGRICULTURAL TRAINING FARM.

1. (a) Erection of dairy buildings, piggeries, silos and men's quarters.
- (b) (i) Grubbing and clearing lands;
- (ii) Fencing.

2. The works have been or are being carried out under the Emergency Relief Work Scheme, under the general supervision of the manager of the farm.

3. The funds for the carrying-out of these works are provided by the Unemployment Relief Council by way of grant to this Department.

4. (a) As to the works mentioned in 1 (a) :

| | Cost | |
|-----------------------|-------------------------|--------|
| | Materials and equipment | Labour |
| Dairy buildings | } £781 | £564 |
| Piggeries | | |
| Silos | | |
| Men's quarters | | |

(b) The works enumerated in 1 (b) are at present proceeding, and the below-mentioned figures cover labour costs only as to (i), and also purchase of material as to (ii), to date.

| | Cost | |
|---------------------------------------|-------------------------|----------|
| | Materials and equipment | Labour |
| | £ s. d. | £ s. d. |
| (i) Clearing and grubbing lands | — | 256 15 5 |
| (ii) Fencing | 234 12 5 | 41 9 10 |

THE TREASURY.

The information desired in connection with main public works, in so far as the Sydney Harbour Trust is concerned, is as shown hereunder :

I.

(a) *Dredging*.—An amount of £73,745 was expended from loan funds on dredging since January 1st, 1929, diminishing from £41,000 for the year ended June 30th, 1929, to £5,400 for year ended June 30th, 1934.

Wharfage Scheme, Glebe Island.—This locality has been developed for the storage and export of wheat. During the period under review, two large sheds were erected and equipped with machinery and appliances, a wharf extension was completed and road and railway facilities were provided.

Nos. 24 and 25 Berths, Pyrmont.—Two large deep-sea berths with concrete decks were provided.

Nos. 7 and 10 Berths, Pyrmont.—Two large deep-sea berths with concrete decks, a singler-decked cargo-shed and rail facilities have been provided.

White Bay Coal Wharf.—This wharf was partly constructed and will be completed at a later date.

Sundry Small Works.—A number of small works were carried out, the chief of which were :

Roofing at No. 28 berth, Darling Harbour.

Shed extension, No. 37, Darling Harbour.

Improvements at Stone Store, Pyrmont.

Goat Island slipway.

Submarine rock removal.

Roadways at Rozelle Bay wharves.

(b) No large works are at present in course of construction.

(c) The following works will be proceeded with as justified by the increasing requirements of shipping :

Glebe Island.—Erection of No. 3 wheat shed.

Bagged Wheat Sheds.—Provision of additional machinery and equipment.

Nos. 24 and 25 Berths, Pyrmont.—Completion of wharf; erection of cargo-sheds and construction of roads and approaches.

Nos. 7 and 10 Berths, Pyrmont.—Construction of two oversea wharves, three cargo-sheds, mechanical equipment and central roadway.

White Bay Coal Berths.—Construction of a large coal-wharf with rail facilities. After the erection of this wharf, the coal-jetties at Pyrmont will be demolished, the removal of which will enable the construction of berths Nos. 7-10 Pyrmont to proceed.

II.

The work is carried out by the Sydney Harbour Trust Commissioners by the day-labour system on areas vested in them.

III.

Revenue Expenditure on works is provided in a special section, "Sydney Harbour Trust Fund", in, and forms a part of, the State budget.

Capital Expenditure is financed from loans raised by the Commonwealth Government and apportioned to the State and then allocated by the Treasury to the various Departments. Such allocation forms part of the State Capital Debt.

IV.

The total expenditure was £441,853, allocated as follows :

| | £ |
|------------------------------|----------|
| Labour..... | 230,185 |
| Material and equipment | 211,668 |
| Total... | £441,853 |

Practically the whole of the material and equipment was of local origin. A somewhat similar proportion of labour and material would apply in any contemplated work.

THE TREASURY.

ADDENDUM.

1. *Revenue Expenditure.*

All expenditures met from the Consolidated Revenue Fund, Government Railways Fund, Metropolitan and Newcastle Transport Trust General Funds and the Sydney Harbour Trust Fund are covered by appropriations of Parliament on the estimates as submitted to Parliament annually.

The Main Roads Department has control of its own funds, such funds being made available to the Main Roads Department under statute. Report is made to Parliament annually by the Department.

The revenues of the Hunter District Water Supply and Sewerage Board are paid to the Special Deposits Account at the Treasury for credit of the Board.

The revenue expenditures of the Board are met from the Special Deposits Account. Estimates of the operations of the Board are noted in the budget papers submitted to Parliament annually.

Deficits have been financed by the issue of short-dated Treasury bills.

2. *Loan (Capital) Expenditure.*

All loan expenditure is authorised by Parliament on the loan estimates submitted to Parliament annually.

Under the Financial Agreement between the Commonwealth and the States, loans are raised by the Commonwealth Government to cover the loan requirements. The loan moneys raised are paid into the loan pool (General Loan Account) and all requirements provided for on the loan estimates are met from this pool. All loans since 1929 have been raised internally.

The Metropolitan Water, Sewerage and Drainage Board, the Rural Bank of New South Wales and local governing bodies have borrowing powers quite apart from State loans.

State loans, loans of the Metropolitan Water, Sewerage and Drainage Board and the Rural Bank of New South Wales are guaranteed by the State of New South Wales, the security being the Consolidated Revenue Fund of the State.

Business and industrial undertakings and certain State activities recoup the State for that part of the interest paid by the State on the loan moneys made available to them, which forms part of the Loan Capital Debt of such undertakings or activities.

The Closer Settlement Fund, which is a separate fund, also recoups the State revenue for that portion of the interest attributable to the loan moneys made available for closer settlement purposes.

In the cases of capital works, such as water, sewerage and drainage works, constructed for municipal councils, etc., the capital debt is repayable over various extended periods by instalments covering principal and interest.

DEPARTMENT OF LOCAL GOVERNMENT.

On the votes of this Department, there is a small sum allocated each year for the purpose of making grants to shire and municipal councils to assist in the construction of urgent works, to meet cases of emergency such as floods, bush fires, etc. The amounts distributed, however, are necessarily small, and as such are not worthy of inclusion in the statement asked for.

The Unemployment Relief Council has made available from time to time considerable sums as grants and advances to shire and municipal councils for the construction of public works, but it is understood that particulars in this regard have been furnished by the Unemployment Relief Council, and it is considered unnecessary to duplicate the information from this Department.

The method employed by councils for the purpose of financing major public works is usually the raising of special loans under the Local Government Act, 1919. During recent years, however, on account of the general financial position, the amount of loans raised has gradually diminished, until, at the present time, it is almost negligible. Since 1929, councils have carried out little or no work of the character mentioned in the circular letter, with the exception of the Clarence River County Council, which borrowed sums amounting to £104,000, and the Newcastle City Council, which borrowed £50,000 for extension of electricity undertakings.

* * *

South Australia.

ENGINEERING AND WATER-SUPPLY DEPARTMENT.

Information asked for in the Circular Letter under items I (a), (b), (c), II and III is given in the table below.

| I. Brief description of the main public works undertaken since 1929 | Actual cost £ | II. Principal administrative methods followed or contemplated | III. Methods employed for financing such works |
|---|----------------------|---|---|
| <i>(a) WORKS UNDERTAKEN SINCE THE BEGINNING OF THE YEAR 1929 AND NOW COMPLETED.</i> | | | |
| General maintenance work throughout the Department from 1929 to 1932 | 641,582 | Departmentally | Financed from revenue |
| <i>Construction Work.</i> | | | |
| Construction of new roads outside district councils..... | 13,635 | " | Financed from loan |
| Construction of locks, etc., River Murray. Contribution from South Australia | 395,373 ¹ | | |
| Construction of various water supplies under Water Conservation Act | 8,000 | Departmentally | Financed from loan |

¹ See footnote at end of table.

| I. Brief description of the main public works undertaken since 1929 | Actual cost £ | II. Principal administrative methods followed or contemplated | III. Methods employed for financing such works |
|---|------------------|---|---|
| <i>(a) WORKS UNDERTAKEN SINCE THE BEGINNING OF THE YEAR 1929 AND NOW COMPLETED (contd.)</i> | | | |
| <i>Adelaide Water District :</i> | | | |
| Service tank, Wattle Park | 27,400 | Private contract | Financed from loan |
| Laying main from Wattle Park tank to trunk main | 21,003 | Departmentally | " |
| Service tank, Darlington | 5,926 | Private contract | " |
| Laying main from Darlington tank to trunk main | 19,973 | Departmentally | " |
| Athelstone : Laying 333 chains of 15" trunk main | 17,624 | " | " |
| Laying mains, etc. | 219,439 | " | " |
| <i>Barossa Water District :</i> | | | |
| Laying sundry mains, etc. | 8,798 | " | " |
| <i>Beetaloo Water District :</i> | | | |
| Between Clements Gap and Keilli : Laying 2 miles of 15½" cast-iron main | 11,723 | " | " |
| Between Kadina and Wallaroo : Laying 5½ miles of 8" main | 13,850 | " | " |
| Hd. Redhill : Laying 234 chains of 15½" cast-iron main to replace 17" steel main | 15,656 | " | " |
| Laying sundry mains, etc. | 32,657 | " | " |
| <i>Tod River Water District :</i> | | | |
| Construction of service reservoir, Pimbaacla Hd. Stokes : Construction of 500,000 gallon reinforced concrete tank | 7,588 | Private contract | " |
| De-aeration plant, tanks, etc. | 3,094 | " | " |
| Laying sundry mains, etc. | 5,535 | " | " |
| | 177,730 | Departmentally | " |
| <i>Warren Water District :</i> | | | |
| Hd. Upper Wakefield : Construction of 20,000,000 gallon reservoir | 14,788 | Private contract and departmentally | " |
| Hd. Nuriootpa and Light : Laying 8 miles 50 chains of 6" main | 16,245 | Departmentally | " |
| Laying sundry mains, etc. | 14,278 | " | " |
| <i>Country Water District :</i> | | | |
| Laying sundry mains, etc. | 67,357 | " | " |
| <i>Adelaide Sewers :</i> | | | |
| Construction of permanent pumping stations | 25,342 | Private contract and departmentally | " |
| Construction of Glenelg treatment works... Brighton, Seacliff and Kingston Park : Laying main sewer from Somerton Pumping Station | 61,587 | " | " |
| Laying sewers : Henley Beach to Grange .. | 17,330 | Departmentally | " |
| Laying sewers : Edwardstown East, etc. .. | 49,909 | " | " |
| Laying sewers : Hayhurst Black Forest, etc. | 13,967 | " | " |
| Laying sewers : Camden Estate | 16,154 | " | " |
| Laying sewers : Edwardstown | 16,972 | " | " |
| Laying sewers : Pennington, etc. | 13,882 | " | " |
| Laying sundry sewers, etc. | 11,190 | " | " |
| | 303,238 | " | " |

| I. Brief description of the main public works undertaken since 1929 | Actual or estimated cost £ | II. Principal administrative methods followed or contemplated | III. Methods employed for financing such works |
|--|----------------------------------|---|---|
| <i>(b) WORKS IN PROGRESS.</i> | | | |
| General maintenance work throughout the Department for year ending June 30th, 1933 | 200,000 | Departmentally | Financed from revenue |
| <i>Construction work.</i> | | | |
| <i>Adelaide Water District :</i> | | | |
| Construction of Mt. Bold reservoir | 378,000 | Private contract | Financed from loan |
| <i>Adelaide Sewers :</i> | | | |
| Reticulation sewers : Woodville | 80,820 | Departmentally | " |
| Trunk sewers : Woodville | 67,780 | " | " |
| Pumping station : Queensbury | 7,090 | " | " |
| Treatment works : Port Adelaide | 108,000 | Private contract and departmentally | " |
| Semaphore sewer : Reconstruction | 8,000 | Departmentally | " |
| <i>Country Water Districts :</i> | | | |
| Yeldulknie : Channel to reservoir | 1,100 | " | " |
| Yeldulknie : Leakage at reservoir | 5,500 | " | " |
| Quorn : Enlargement of catchment area, etc. | 11,200 | Private contract and departmentally | " |
| <i>Spring Creek Water District :</i> | | | |
| Regrading, etc., mains | 2,000 | Departmentally | " |
| <i>Tod River Water District :</i> | | | |
| Laying mains, etc. | 60,000 | " | " |
| <i>River Murray : Weirs, etc. :</i> | | | |
| Construction of locks, etc. : Contribution from South Australia | 129,000 ¹ | | |
| <i>(c) PROPOSED ADDITIONAL WORKS.</i> | | | |
| General maintenance work throughout the Department for year ending June 30th, 1935 | 210,000 | Departmentally | Financed from revenue |
| <i>Adelaide Water District :</i> | | | |
| Laying sundry mains, etc. | 20,000 | " | Financed from loan |
| <i>Adelaide sewers :</i> | | | |
| Laying sundry sewers, etc. | 50,000 | " | " |
| Cowandilla division sewer | 22,000 | " | " |
| Brooklyn Park : Pumping station | 4,000 | " | " |
| <i>Country Water District :</i> | | | |
| Sundry main-laying | 15,000 | " | " |
| Loxton pumping plant | 3,500 | " | " |
| Mt. Gambier pumping plant | 4,000 | " | " |
| Streaky Bay supply | 20,000 | " | " |
| <i>Beetaloo and Bundaleer Water District :</i> | | | |
| Laying mains and services, etc. | 54,000 | " | " |

¹ See footnote at end of table.

| I. Brief description of the main public works undertaken since 1929 | Estimated cost £ | II. Principal administrative methods followed or contemplated | III. Methods employed for financing such works |
|--|----------------------|---|---|
| (c) PROPOSED ADDITIONAL WORKS (contd.) | | | |
| <i>Tod River Water District :</i> | | | |
| Laying mains services, etc. | 12,000 | Departmentally | Financed from loan |
| Treating portion of trunk main to protect same from corrosion | 50,000 | " | " |
| Head works, additional catchment areas, reservoirs, etc. | 250,000 | " | " |
| <i>Warren Water District :</i> | | | |
| Laying mains and services, etc. | 10,000 | " | " |
| Relaying portion of trunk main | 10,000 | " | " |
| Hansborough pumping plant | 20,000 | " | " |
| <i>River Murray Weirs, etc. :</i> | | | |
| Construction of locks, barrages, etc. : Con- tribution from South Australia | 100,000 ¹ | | |

¹ The work of constructing the locks on the River Murray is being carried out by the River Murray Commission, a body established by the consent of the States of New South Wales, Victoria and South Australia, in conjunction with the Commonwealth Government. Each Government contributes one-quarter of the necessary funds for the purpose of financing the works.

IV.

The expenditure upon these works is approximately equally divided between the labour and material. The latter is almost exclusively produced in Australia, the proportion supplied by foreign industry being almost negligible.

V.

The average number of employees during 1933-34 has been 2,042, including 303 salaried officers. Of this number, 1,364, including 73 salaried officers, have been employed upon Loan Account, and 678, including 230 salaried officers, upon Maintenance Account.

The discontinuance of all loan construction work would directly result in approximately 1,364 men being thrown out of employment, and in addition to this would be the effect upon industries supplying the materials for this work.

THE ARCHITECT-IN-CHIEF'S DEPARTMENT.

The expenditure of funds by this Department in construction of public buildings between 1929 and the present date amounts to £644,210 with a further liability of £72,000 to complete the works now under construction, the amounts being financed from loan funds. The works include school buildings, hospital buildings, police stations and court-houses, gaols and prisons, and other Government buildings.

Of the above amounts, it is estimated that 40% was spent on wages on construction, the balance for purchase of building material and equipment.

The policy of the Government is to give preference to Australian and British materials, and it is impossible to estimate the quantity supplied by foreign countries.

The tentative loan estimates for the next financial year show £649,000 as estimated costs of various schemes, including completion of Parliament House, the Centenary Hall at Wayville Showgrounds, new Government office block, Molton Street, women's hospital and operating-theatre blocks at Adelaide Hospital, but whether the Government intend to approve of the programme submitted it is at present impossible to say.

As regards the number of men employed on buildings being erected under this Department, it is estimated that 250 men are engaged on erection of buildings at present, but, until the programme for 1934-35 is approved, it is impossible to estimate the number of men to be employed next financial year.

RAILWAYS DEPARTMENT.

The money expended by the Railways Department on loan work since 1929 is as follows :

| Year | £ |
|---------------|-------------------|
| 1929-30 | 685,340 |
| 1930-31 | 128,522 |
| 1931-32 | 80,612 |
| 1932-33 | 101,207 |
| 1933-34 | 82,953 |
| Total... | <u>£1,078,634</u> |

I.

No new railway lines have been built and the whole of the expenditure has been on miscellaneous accommodation works. The only single large item of expenditure during these years was an amount of £432,000 spent in the year 1929-30 on new rolling-stock, consisting chiefly of 250 bogie sheep vans and 2 "Mikado" type locomotives.

II.

The works were carried out by the permanent supervising staff of the railways.

III.

The above expenditure may be said to have been charged to the extraordinary budget of the State, in that it was wholly loan expenditure.

IV.

It is impossible to allocate this expenditure between wages and material, on account of the large number of minor works comprising the total.

The whole of the works above were really required in connection with the ordinary business of the railways.

The above statement is concurred in by the Comptroller.

HARBOURS BOARD DEPARTMENT.

I.

(a) Since 1929, Ocean Steamers' Wharf comprising three berths of 32 feet draft, and No. 1 Quay, comprising two berths of 27 feet draft, have been reconstructed and equipped with new cargo-sheds, rail-tracks, roadways, etc. In addition, the Osborne coal-handling wharf has been reconstructed. The deepening of the Port Adelaide River to a depth of 27 feet and minimum bottom width of 250 feet was completed, and there now remains only a small section to be dredged to give a minimum width of 300 feet.

(b) The reconstruction of Port Adelaide Wharves has been continued. Commercial Wharf is nearing completion, whilst the reconstruction of McLaren Wharf and the south side of the basin now known as "No. 1 Dock" is in hand. In addition, the portion of the old basin between T Head, Dalgety's and Brown's wharf, has been completed, and the reclamation of the old dock east of Fisher Bridge is in hand.

(c) It is expected that the above work will be completed in about two years' time; beyond that, it is difficult to forecast further development.

II.

The works are carried out by the South Australian Harbours Board, a branch of the State Government Service, portions of the work being sublet to contractors.

III.

The work is financed from loan funds.

IV.

The amount of loan money involved is :

| Year | £ |
|---------------|---------|
| 1929-30 | 223,600 |
| 1930-31 | 48,872 |
| 1931-32 | 122,776 |
| 1932-33 | 67,440 |
| 1933-34 | 207,500 |

The division of materials and labour is roughly in the proportion of materials 60%, labour 40%.

WOODS AND FORESTS DEPARTMENT.

I.

Description of work—afforestation. Consists mainly of the establishment of pine plantations :

(a) The establishment of approximately 25,000 acres of pines.

(b) The annual planting programme is approximately 7,000 acres. The current year's planting is now in hand.

II.

The work is carried out under the provisions of the Woods and Forests Act of 1882. This Act is now administered by the Honourable Minister of Afforestation. The work is carried out by the Department and not by contract.

III.

The whole of the work is financed by loan funds.

IV.

The present programme of the Department is the establishment of 50,000 acres of pines. The estimated cost is approximately £250,000. Approximately 75% of this sum will represent wages and miscellaneous social expenditure and 25% material and equipment.

V.

The effect of this work will be to supply a large percentage of the State's timber requirements. A large proportion of the expenditure on afforestation is represented by labour, and the effect on unemployment has been considerable.

HIGHWAYS AND LOCAL GOVERNMENT DEPARTMENT.

I. Classification of Public Works undertaken.

(a) The construction, reconstruction and repair of various roads and bridges, including the reconstruction in bituminous penetration macadam of approximately 400 miles of main roads;

(b) Continuation of the above-mentioned work;

(c) Continuation of the above-mentioned work.

II. Methods under which the Work is carried out.

A. Departmentally—in which case contracts are let for supply of materials, cartage, etc., and the labour is directly employed by the Department.

B. By a system of grants to local governing authorities, subject to inspection of the work by departmental officers. These local authorities carry out much the greater proportion of the work under a system of petty contracts.

III.

The works are financed from revenue, partly from funds voted by the State Parliament and partly from funds received from the Commonwealth Government in respect of a portion of duties on motor-spirit. No portion of the cost of this work is, under present conditions, charged to any loan account. The total annual expenditure, including interest charges, is about £700,000.

IV.

An approximate division of the expenditure would be :

| | Percentage |
|---------------------|------------|
| Materials | 26 |
| Labour..... | 52 |
| Interest, etc. | 22 |

V.

The work in question is part of a continuous programme for providing adequate means of transport and communication to meet the needs of the State. The work incidentally provides employment for a considerable number of men. For 1934-35, it is estimated that the average number of men directly employed by the Department will be 430, that an additional 70 will be employed by contractors in supplying metal, etc., and that, in addition, 900 men will be directly and indirectly employed by local governing authorities in carrying out road works from departmental grants allotted.

Western Australia.

I. Brief Description of Main Public Works.

| | (a) Works undertaken and completed since 1929 | (b) Now in course of execution | (c) Works contemplated |
|--|--|---|---|
| | <i>Construction</i> | | <i>Construction</i> |
| <i>Railway lines</i> | Lake Brown-Bullfinch, Kulja-Bonnie Rock, Meekatharra-Wiluna, Lake Grace - Northcliffe. <i>Additions and Improvements</i> Duplication of tracks, deviations, sidings, stockyards, etc., houses for employees, extensions to existing tram lines, etc. | Regrading, deviation, duplication and ballasting of sections of tracks, water supplies. | Yuna-Dartmoor, southward from Southern Cross. Provision of a central sub-station for tramways. <i>Additions and Improvements</i> Regrading, deviation, ballasting, etc. Additional rolling-stock, superheating locomotives, fitting vacuum brakes to existing wagons. |
| <i>Agricultural land reclamation</i> | Irrigation and drainage in south-west portion of State. | As in Column (a). | Continuation of works listed in Column (a). |
| <i>Drinking-water supplies and sewerage disposal, etc.</i> | Construction of reservoirs for metropolitan water supplies, establishment of pumping stations and reconditioning mains, sewerage installations, Perth, Fremantle, and suburbs. Storm-water drainage, Perth, Fremantle, and suburbs. | Works similar to those listed in Column (a). The principal work now in hand is the Canning Dam, which will take about five years to complete. | Extension of existing water-supply service. Reconditioning of mains, metropolitan area. Extension of sewerage installation and storm-water drains. |
| <i>Harbours and rivers . .</i> | Victoria Quay (suspended), Geraldton Harbour (suspended), Swan River improvements. Construction of a "Stirling" dredge and 20-ton crane for Fremantle Harbour Works. | <i>Bunbury Harbour Works</i> : Extension of mole and construction of groin. <i>Esperance</i> : New jetty. <i>Geraldton</i> : Breakwater extension, and construction of new shed. <i>Swan River</i> : Improvements. | Reconstruction Fremantle fish jetty. Victoria Quay reconstruction. |
| <i>Building construction.</i> | Erection of schools, administrative buildings, etc. | As in Column (a) and extensions to mental hospital and abattoirs. | As in Column (a). |
| <i>Electric installation . .</i> | Minor extensions to existing power station and extension of service mains. | As in Column (a). | Power-house extensions, and new plant (special loan of £400,000 approved for this purpose). |

Works carried out by Local Authorities.

Undertaken and completed since 1929 :

Harvey Road Board : Town water supply, £3,000.

Moora Road Board : Town water supply, £3,000.

Bunbury Road Board : Town water supply, £3,000.

II.

The whole of the works listed in the table on page 45 were, and are, being carried out under the direct authority of the Central Government, and those listed above were carried out under the direction of the local authorities, but subject to the supervision of an engineer made available by the Central Government.

III. *Method employed for financing the Works.*

In regard to the works listed on the preceding page, with the exception of "roads and bridges", the expenditure is financed from loans raised by the Loan Council. Expenditure on roads and bridges is financed mostly from the proceeds of a special tax on petrol, imposed and collected by the Commonwealth and distributed amongst the States. The balance of the expenditure on this item comes from loans raised by the Loan Council.

In regard to works carried out by local authorities, the finance was provided by a special grant from the Commonwealth Government.

Loan funds made available with the approval of the Loan Council are covered by issues of inscribed stock, and those acquired by local raising are secured by instalment stock issues.

Following are the methods used for raising the necessary funds :

Up to 1929 : Public loans (internal and external).

During 1931-32 : The loan requirements were financed by the Commonwealth Bank on the security of short-term Treasury bills. The amount so advanced is gradually being funded from the proceeds of public loans raised on the open market.

Since November 1932 : Internal public loans (*i.e.*, within Australia).

Repayment of loans : This is provided for by the establishment of a sinking fund which, on the following basis of contributions, will redeem the loans in periods of 58 and 53 years, respectively :

Loans raised prior to June 30th, 1927 : Total contribution 7s. 6d. %—viz., 5s. % by the State, 2s. 6d. % by the Commonwealth.

Loans raised since July 1st, 1927 : Total contribution 10s. %—viz., 5s. by the State and 5s. by the Commonwealth.

IV. *Allocation of Expenditure.*

The annual expenditure on works since the year 1929-30 has been as follows. The figures include the expenditure for "roads and bridges" provided from the special petrol tax :

| Year | £ |
|---------------|-----------|
| 1929-30 | 2,343,154 |
| 1930-31 | 1,329,609 |
| 1931-32 | 1,070,860 |
| 1932-33 | 1,933,697 |
| 1933-34 | 2,324,210 |

Prior to the year 1932-33, no dissection of the expenditure was made, but for the two years 1932-33 and 1933-34, the dissection was as follows :

Expenditure on Unemployment Relief : Dissection for 1932-33 and 1933-34.

| Period | Average number of men employed | Expenditure | | | Average costs per man | | |
|------------|--------------------------------|-------------|--------------------|-------------|-----------------------|----------|-------------------|
| | | Wages | Material and other | Total | Annual | | Per week |
| | | | | | Wages | Over all | Wages |
| 1932-33 | 8,615 | £ 1,247,564 | £ 686,133 | £ 1,933,697 | £ 145 | £ 224 | £ s. d. 2 15 9 |
| 1933-34 | 9,211 | £ 1,391,134 | £ 933,076 | £ 2,324,210 | £ 151 | £ 252 | 2 18 1 |
| Average... | 8,913 | £1,319,349 | £809,604 | £2,128,953 | £148 | £238 | £2 16 11 |

The materials were mostly of Western Australian origin, and it was only where it was impossible to secure Western Australian material that products of other States or countries were used. Products not of Western Australian origin would represent only an insignificant proportion of the total expenditure on material.

V. Effect on Economic and Industrial Activities.

The expenditure of such a large amount of loan money has naturally necessitated the production of a considerable quantity of material which has resulted in cement works, steel and wooden pipe manufacturers and other producers working at full pressure.

An increased demand has been created for clothing and household articles, and the result generally has been that a substantial number of unemployed have been re-absorbed in private industry.

This is borne out by the following figures :

| | Percentage of trade-union members unemployed | Number of unemployed on sustenance | Number on Government relief works | Total on Government assistance |
|----------------------|--|------------------------------------|-----------------------------------|--------------------------------|
| June 30th, 1932..... | 30.3 | 10,276 | 6,115 | 16,391 |
| June 30th, 1933..... | 26.0 | 6,063 | 7,271 | 13,287 |
| June 30th, 1934..... | 18.3 | 1,225 | 9,950 | 11,175 |

CHILE.

[*Translation from the Spanish.*]

GENERAL DIRECTORATE OF PUBLIC WORKS.

MEMORANDUM ON THE EFFECTS OBTAINED FROM THE EXECUTION OF THE PUBLIC WORKS INCLUDED UNDER I OF THE QUESTIONNAIRE; RESUMPTION OF ECONOMIC AND INDUSTRIAL ACTIVITY; SUSPENSION OF THOSE WORKS.

At the beginning of 1929, the construction of certain works forming part of an extraordinary plan was begun and pursued with great activity; this plan authorised the expenditure of 1,575 million, of which 1,028 millions were allocated to the Directorate of Public Works. Further sums were provided for under the Road Law and other special laws.

On account of the Treasury crisis, the works begun were for the most part suspended about the middle of 1931, some being resumed later in order to provide work for the unemployed. The general position of the works at about the middle of 1931 was as follows: works had been completed costing 264.7 million dollars, while, to complete the works in course of execution, a further expenditure of 338.6 millions was required.

In these circumstances, the economic return was sacrificed, but the execution of the works which it was possible to continue was of material assistance in solving the problem of unemployment, and for two and a half years (from the middle of 1931 to the end of 1933) employment was provided for an average of 30,000 men out of a total number of unemployed estimated in September 1931 at some 120,000 men.

During the years 1929 and 1930, the execution of the works naturally had a direct influence on the building and allied industries (building materials, transport, etc.), and an appreciable resumption of activity occurred at that time.

The suspension of the works in the middle of 1931 and the liquidation of a large number of important contracts, added to the problems of unemployment and the absence of any economic return, had a very serious effect on the national Treasury; many undertakings were and still are paralysed, and in the meantime the Government has been obliged to take over the machinery, installations and material which, in the case of works recently begun, represented almost the whole of the capital sunk in them.

At the present time, the General Directorate of Public Works, according to the inventories made, has a sum of approximately 20 million dollars locked up in machinery alone, part of which is not being used, and the upkeep and repayment in respect of which represents a considerable amount each year.

Nevertheless, the flexible organisation of the service has enabled it to cope satisfactorily with the abnormal conditions by which public works have been hampered during the last few years.

MINISTRY OF NATIONAL ECONOMY.

DEPARTMENT OF RAILWAYS OF THE GENERAL DIRECTORATE OF PUBLIC WORKS.

Information regarding Railways.

I.

1. *Works carried out in 1929.*

The following railway lines were completed in 1929 :

(a) San Clemente-Mariposas railway—Extension of the railway from Talca to San Clemente : Gauge, 1 metre; length, 15.5 kilometers; cost, 1,860,167.03 dollars; open to traffic.

(b) Branch to the Pampas Pissis and Nebrask of the Iquique-Pintados railway : Gauge, 1 metre; length, 27 kilometers; cost, 1,920,767.48 dollars; completed and open to traffic.

2. *Works begun in 1929.*

Loncoche-Villarrica railway : Length, 42 kilometres; gauge, 1.68 metres; estimated cost, 10,748,000 dollars; completed and opened to traffic in 1934.

Quino-Galvarino railway : Length, 29 kilometres; gauge, 1.68 metres; estimated cost 8,387,000 dollars; nearing completion.

Cocule-Lago Ranco railway : Length, 66.4 kilometres; gauge, 1.68 metres; estimated cost 15,480,000 dollars.

Peleco-Purén railway : Section to be constructed on the Lebu-Los Sauces line; length, 45.6 kilometres; gauge, 1.68 metres; estimated cost 22,800,000 dollars.

“Las Raices” tunnel on the Transandine railway via Lonquimay, on the extension of the Puá-Curacautin branch (gauge, 1.68 metres); length of tunnel, 4,555 metres; estimated cost, 16,400,000 dollars.

3. *Works projected or with Plans completed in 1929 and now about to be put in hand.*

Transandine railway via Lonquimay : Gauge, 1.68 metres; length, 75 kilometres. Diversion of the railway line from the Avenue Matucana; gauge, 1.68 metres; length, 4 kilometres (underground).

Los Alamos-Curanilahue railway : Gauge 1.68 metres; length, 26.7 kilometres; estimated cost, 20,028,305 dollars.

Corte Alto-Maullín railway : Gauge, 1.68 metres; length, 109 kilometres; estimated cost, 33,145,070.62 dollars.

4. *Works in course of Execution (1934).*

| | Gauge (Metres) | Length (Kilometres) | Estimated cost (Dollars) |
|----------------------------------|-------------------|------------------------|-----------------------------|
| Antofagasta-Salta railway | 1.00 | 177.6 | 70,692,471.50 |
| Doñihue-Coltauco railway | 1.68 | 13.5 | 1,076,891.87 |
| Hualañé-Licantén railway | 1.00 | 11.2 | 1,378,164.44 |
| Quino-Galvarino railway | 1.68 | 29.1 | 8,100,721.00 |
| Peleco-Purén railway | 1.68 | 45.6 | 22,800,000.00 |
| Cocule-Lago Ranco railway | 1.68 | 66.4 | 15,188,451.17 |
| Corte Alto-Maullín railway | 1.68 | 109.0 | 33,145,070.62 |
| “Las Raices” tunnel | 1.68 | 4.5 | 16,400,000.00 |

5. *Railways projected or with Plans completed and now about to be built.*

| | Gauge (Metres) | Length (Kilometres) |
|---|-------------------|------------------------|
| Arica-Zapiga railway..... | 1.68 | 178 |
| Carahue-Puerto Saavedra railway | 1.68 | 29 |
| Crucero-Puyehue railway | 1.68 | 32 |
| Freire-Toltén railway | 1.68 | 80 |
| Santa Bárbara-Rapa railway | 1.68 | 15 |
| Cunco-Cordillera railway | 1.68 | 25 |
| Salamanca-Cuncumen railway | 1.68 | 40 |
| Cabildo-Putando railway | 1.00 | 65 |
| Mariposas-Lircay railway | 1.00 | 17.5 |
| Petorca-Chincolco railway | 1.00 | 9 |
| Curicó-Los Queñes railway..... | 1.00 | 44 |
| Santiago-Valparaiso via Casablanca railway..... | 1.68 | 153 |
| Las Cabras-San Antonio railway..... | 1.68 | 120 |
| Coltauco-Peumo railway..... | 1.68 | 12 |
| Los Alamos-Curanilahue railway | 1.68 | 23 |
| Galvarino-Boroa railway | 1.68 | 40 |

II. *Administrative Methods.*

The Directorate of Public Works is responsible for the construction of railways; as soon as they are completed, they are handed over to the State Railways, by which they are operated. Public tenders are invited for their construction and inclusive contracts are placed. In the case of less important works, contracts are placed at prices per unit, and in the case of "Las Raices" tunnel, a "cost-plus" contract was concluded.

III. *Methods of Financing.*

Between 1929 and 1931, the appropriations for these works were embodied in an extraordinary budget, which was financed by means of foreign loans. From 1932 down to the present date, the appropriations have been placed in special annexes, which form part of the general national budget, and are financed out of ordinary resources, their purpose being to combat unemployment.

IV.

A sum of 118,492,000 dollars has been expended on railway construction from 1929 down to the present date. The approximate cost of the material and equipment imported from abroad for the various works is 36,400,000 dollars; a sum of 73,749,000 dollars has been expended on national material and on labour, while the expenditure incurred under social legislation amounts to 8,343,000 dollars.

V.

The majority of the railway lines in Chile have been, and are still being, constructed by the State, through the Railway Department of the Directorate of Public Works, which, in addition to the actual construction, is responsible for preparing the plans and estimates for the work.

As there are prospects of a considerable further development of the country's resources, the railways have not in every case been constructed merely with a view to the immediate commercial return.

The State Railways have taken over the operation of the lines built by the Government, and only during the last few decades have receipts balanced expenditure; but the chief reason for constructing these communications has always been to develop agriculture and the mining industry and to connect distant parts of the country. By reason of its geographical and orographical configuration, Chile has to contend with exceptional difficulties as compared with other countries that have been able to carry out these works at a lower cost and in some cases by utilising routes dating from earlier times.

ROADS DEPARTMENT.

I. *Brief Description of the Main Public Works.*

(a) *Works begun in 1929 and now completed.*

The work on roads and bridges begun in 1929 has now been completed. In 1929, the construction of 453 kilometres of permanent roads of reinforced concrete, asphalt and macadam was begun. The following works may be specially mentioned :

Pozo Almonte-Huara road : Asphalt.
 Viña del Mar-Concón road : Concrete.
 Valparaiso-Casablanca road : Concrete.
 Casablanca-Curacaví road : Concrete.
 Marruecos-Curacaví road : Concrete.
 Santiago-San Bernardo road : Concrete.
 Paso Hondo-Peña Blanca road : Asphalt.
 San Bernardo-Nos road : Asphalt.
 Providencia-Tropezón road : Concrete.
 Santiago-Monte road : Concrete.
 Melipilla-Sepultura road : Concrete.
 Concepción-Talcahuano road : Asphalt.
 San Antonio-Cartagena road : Asphalt.

Others also have now been completed.

The year 1929 was marked by an enormous extension of road works. For instance, at the end of 1928, only eight contracts for roads had been placed, whereas at the end of 1929, 22 main roads were under construction at an estimated cost of over 84 million pesos. During 1929, 54,826,109 dollars was expended on road construction.

In the same year, great progress was made in the construction of bridges. With a total length of 1,601 metres, 19 bridges were completed at a cost of 7,677,984 dollars. With a total length of 5,017 metres, 62 bridges were under construction, the cost amounting to 20,641,199 dollars, making a total of 81 bridges under construction during 1929 at a cost of 28,319,184 dollars.

During 1929, the total expenditure on bridges amounted to 9,070,532 dollars.

The cost of the upkeep of roads and bridges during that year amounted to 28,255,202 dollars.

All these 81 bridges have now been completed.

(b) *Works under Construction at the Present Time.*

In the present year (1934), the following roads are under construction :

| | Dollars |
|-----------------------------|------------|
| Melipilla-San Antonio | 6,600,000 |
| Melipilla-Ibacache | 1,030,000 |
| Valparaiso-Los Andes | 10,360,000 |

| | Dollars |
|--|------------|
| Llolleo to the south..... | 1,640,000 |
| Cartagena Station-Playa Chica..... | 260,000 |
| Concepción-Búlnes | 14,700,000 |
| Valdivia-La Unión..... | 7,000,000 |
| La Unión-Lago Ranco | 1,060,000 |
| Lanco-Panguipulli | 2,000,000 |
| Osorno-San Juan de la Costa..... | 1,290,000 |
| Ovalle to the Interior (Variante Recoleta) | 160,000 |
| Osorno-Termas de Puyehue | 896,483 |
| Longaví-Miraflores | 320,946 |

During the present year (1934), there are 13 bridges under construction, at a cost of 6,073,857 dollars.

(c) *Works the Execution of which is in Contemplation or Schemes for which are in Preparation.*

As regards both roads and bridges, the execution of proposed works now depends on the annual revenue obtained under the Road Law, which varies between 30 and 40 million dollars, and on appropriation in an extraordinary budget amounting to approximately 10 million dollars.

II. *Principal Administrative Methods followed for the Execution of the Works.*

The construction of roads and bridges is carried out by public tender and inclusive contracts.

During the last two years, the system of employing labour by the day has occasionally been adopted with a view to combating unemployment. This system has usually been employed for road repairs.

The Roads Department, which is under the General Directorate of Public Works, attached to the Ministry of National Economy, is responsible for all work on roads and bridges.

III. *Principal Methods employed for financing this Work.*

The work on roads and bridges is financed by the annual revenue obtained under the Road Law (Law No. 4851).

From 1929 to 1931, however, recourse was had to foreign loans to supplement the funds obtained under this law, with a view to the application of an extraordinary scheme of public works. At the present time, the Roads Department's funds consist of the revenue obtained under Law 4851, which, as already stated, varies between 30 and 40 million pesos a year, and the appropriation in the extraordinary budget referred to in No. 1 (c).

IV. *Approximate Estimate of the Allocation of Expenditure on the Works referred to in I, as between Materials and Equipment provided by National or Foreign Industries, Labour and the Expenditure incurred in Application of the Social Laws.*

From 1929 to 1933 inclusive, the following sums were expended on bridges :

| | Dollars |
|-----------|------------|
| 1929..... | 9,070,532 |
| 1930..... | 8,392,284 |
| 1931..... | 6,354,552 |
| 1932..... | 2,773,839 |
| 1933..... | 1,472,048 |
| Total... | 28,063,255 |

For each year, the percentage represented by materials, labour, etc., has been calculated as follows :

| | 1929 | 1930 | 1931 | 1932 | 1933 |
|--|------|------|------|------|------|
| | % | % | % | % | % |
| Imported materials and equipment | 30.4 | 31.4 | 24.3 | 21.4 | 18.4 |
| National materials and equipment | 14.3 | 14 | 18.3 | 21.8 | 24.6 |
| Labour | 23 | 22.1 | 26.4 | 25 | 27.8 |
| Overhead expenses | 13.9 | 14 | 12.2 | 12.8 | 12.1 |
| Social legislation | 5.7 | 5.7 | 6 | 6.3 | 6.5 |
| Contractor's profit | 12.5 | 12.8 | 12.8 | 12.7 | 10.6 |

In establishing these percentages, no account was taken of the depreciation in the value of the currency, which increases the differences.

These differences are chiefly due to changes in the type of foundation used and to the decrease in imports of cement.

From 1929 to 1933 inclusive, the following sums were expended on the construction of roads :

| | Dollars |
|------------|-------------|
| 1929 | 54,826,109 |
| 1930 | 46,443,260 |
| 1931 | 28,630,786 |
| 1932 | 18,260,567 |
| 1933 | 7,278,051 |
| Total ... | 155,438,773 |

The cost of imported materials was 4,522,452 dollars.

The expenditure incurred in application of social legislation may be estimated at 5% of the amount of the contract for road works, and wages at 50% of that amount, in the case of earth roads and roads metalled with gravel or broken stone.

The following sums were expended on the upkeep of roads and bridges from 1929 to 1933 :

| | Dollars |
|------------|-------------|
| 1929 | 28,255,202 |
| 1930 | 33,300,000 |
| 1931 | 24,814,120 |
| 1932 | 41,079,310 |
| 1933 | 23,012,210 |
| Total ... | 150,460,842 |

The following sums were expended on machinery :

| | Dollars |
|------------|-----------|
| 1929 | 2,630,850 |
| 1930 | 916,770 |
| 1931 | 129,000 |
| 1932 | 655,394 |
| 1933 | 2,988,063 |
| Total ... | 7,320,077 |

From 1929 to 1933, the cost of the surveys made by the Roads Department was as follows :

| | Dollars |
|-----------|------------|
| 1929..... | 5,117,708 |
| 1930..... | 3,574,448 |
| 1931..... | 843,429 |
| 1932..... | 759,942 |
| 1933..... | 888,372 |
| Total... | 11,183,899 |

IRRIGATION DEPARTMENT.

PARTICULARS OF IRRIGATION WORKS.

I. *Brief Description of the Main Works.*

The following table gives the chief particulars regarding the irrigation works which were begun or were in course of construction during 1929. In the "Observations" column, it is stated whether the work has been completed, whether it is under construction or whether it has been suspended.

This table also shows the works begun since 1929 and schemes for new works.

II. *Principal Administrative Methods followed for the Execution of the Works and Legal Provisions of an Exceptional or Permanent Character relating to Those Works.*

The studies for, and the execution of, irrigation works of general interest are carried out by the State, through the General Directorate of Public Works (Irrigation Department), in accordance with Irrigation Law No. 4445.

The above-mentioned law specifies the form in which these works are to be studied and carried out and the method by which the beneficiaries are to refund to the State the sums expended thereon.

Such sums must be paid back in 36½ years at the rate of 5% interest and 1% amortisation and in proportion to the area irrigated by each of the parties concerned.

Repayment starts from the fourth year after the work has been put into use.

The works are carried out by contract or by the Administration.

Contracts are placed by means of public tenders, either on inclusive terms or at prices per unit. Previously, in 1929, contracts were based on the "Cost plus Fee" system, but this was subsequently abandoned.

The works executed by the Administration are carried out by staff working directly under the General Directorate of Public Works (Irrigation Department).

III. *Principal Methods employed for financing the Work.*

The State inserts each year in the Budget Law of the Republic the sums required for the execution of the irrigation works carried out in accordance with Law No. 4445 mentioned above.

IV. Sums expended up to December 31st, 1933, on the Execution of the Works included in the Attached Table.

Up to December 31st, 1933, 97 million dollars had been expended on the works included in this table.

I. Works and Schemes carried out or in course of Execution since 1929.

| Works | Province | New area to be irrigated | Area in which irrigation is to be improved | Estimated cost | Observations |
|--|------------|--------------------------|--|----------------|---------------------------------------|
| (a) <i>Work begun or in progress in 1929.</i> | | Hectares | Hectares | Dollars | |
| 1. Caritaya dam | Tarapacá | 2,000 | 1,000 | 5,500,000 | Now under construction. |
| 2. Pachica dam | Tarapacá | 2,000 | | 20,000,000 | Now under construction. |
| 3. Lautaro dam | Atacama | | 8,000 | 11,000,000 | Now under construction. |
| 4. J. del Carmen dam | Atacama | 20,000 | 8,000 | 36,000,000 | Suspended in 1931. |
| 5. I.a Laguna dam | Coquimbo | | 17,500 | 8,700,000 | Now under construction. |
| 6. Recoleta dam | Coquimbo | 12,000 | 4,000 | 28,000,000 | Dam completed; canals now being made. |
| 7. Cogoti dam | Coquimbo | 10,000 | 4,000 | 35,000,000 | Suspended in 1931. |
| 8. Huintil dam | Coquimbo | 4,500 | — | 17,000,000 | Suspended in 1931. |
| 9. Choapa canal | Coquimbo | 5,000 | — | 8,000,000 | Suspended in 1931. |
| 10. Culimo dam | Coquimbo | 1,400 | — | 3,200,000 | Completed. |
| 11. Vilcuya dam | Aconcagua | 25,000 | 65,000 | 58,000,000 | Suspended in 1931. |
| 12. Pitama dam | Aconcagua | 350 | | 1,050,000 | Completed. |
| 13. Orozco dam | Aconcagua | 1,020 | | 1,400,000 | Completed. |
| 14. Ovalle dam | Aconcagua | 2,000 | | 2,200,000 | Completed. |
| 15. Perales de Tapihue dam | Aconcagua | 1,775 | | 2,800,000 | Completed. |
| 16. Purísima dam | Aconcagua | 420 | | 410,000 | Completed. |
| 17. Chacabuco dam | Santiago | 5,000 | | 14,000,000 | Completed. |
| 18. Colina canal | Santiago | — | 2,000 | 1,100,000 | Completed. |
| 19. Lolol dam | Colchagua | 1,100 | — | 1,000,000 | Now under construction. |
| 20. Bullileo dam | Maule | | 32,600 | 14,000,000 | Suspended in 1931. |
| 21. Huelehueico dam | Bío-Bío | 600 | | 290,000 | Completed. |
| 22. Colicheo canal | Concepción | 5,000 | | 450,000 | Completed. |
| (b) <i>Work begun after 1929.</i> | | | | | |
| 1. Cerrillos dam | Santiago | 410 | | 400,000 | Completed. |
| 2. Cocalan canal | Colchagua | 6,000 | 3,000 | 6,650,000 | Now under construction. |
| (c) <i>Works under Consideration or for which Plans exist.</i> | | | | | |
| 1. Irrigation of Azapa | Tarapacá | 2,000 | | 12,800,000 | Under consideration. |
| 2. Puerto Oscuro dam | Coquimbo | 100 | | 250,000 | Under consideration. |
| 3. El Membrillo dam | Aconcagua | 1,680 | | 1,230,000 | Under consideration. |
| 4. Irrigation of Codegua | Colchagua | 2,000 | 1,000 | 2,000,000 | Under consideration. |
| 5. Maitenes dam | Colchagua | 1,200 | | 2,500,000 | Under consideration. |
| 6. Planchon dam | Talca | — | | 1,500,000 | Under consideration. |
| 7. Curepto lagoon | Talca | — | 1,000 | 200,000 | Under consideration. |
| 8. Laguna del Maule dam | Talca | — | 100,000 | 7,000,000 | Scheme examined. |
| 9. Tutuven dam | Maule | 1,600 | | 1,500,000 | Under consideration. |
| 10. Bío-Bío north canal | Bío-Bío | 5,800 | | 2,000,000 | Scheme examined. |
| 11. Allipen canal | Cautín | 25,000 | | 4,000,000 | Under consideration. |

HYDRAULICS DEPARTMENT.

WORKS CARRIED OUT FROM 1929 TO DATE.

Since 1929, the Hydraulics Department has put in hand 7 new drinking-water supply services in various places and has extended 18 existing services.

The total cost of these works amounts to 60,348,597 dollars, distributed as follows :

| | Dollars |
|--------------------------|------------|
| Imported materials | 38,014,200 |
| National materials | 9,663,000 |
| Labour | 12,068,000 |
| Social legislation | 603,397 |

During this period, the installation of drinking-water supply services begun prior to 1929 was completed. These works include the installation of 5 drinking-water services and the improvement of 13 existing services.

The total cost of these works amounts to 12,802,309 dollars, of which the sum of 5,675,610 dollars has been expended since 1929—*i.e.*, 3,575,630 dollars on imported materials, 1,108,200 dollars on national materials, 1,135,120 dollars on labour and 56,660 dollars on the application of social legislation.

Since 1929, sewage works have been put in hand in 13 towns and the existing services have been extended in 9 other towns.

The total cost of these works amounts to 23,751,170 dollars, of which 16,269,550 dollars was expended on national materials, 356,270 dollars on labour and 7,125,350 dollars on the application of social legislation. The execution of 10 sewage works begun prior to 1929 and the extension of two services in other towns were also completed. The total cost of these works amounts to 14,359,673 dollars, of which 4,583,716 dollars has been expended since 1929. Of this sum, 3,139,846 dollars was expended on national materials, 1,375,110 dollars on labour and 68,760 dollars on the application of social legislation.

As regards river works, such as the canalisation, dredging, rectification and diversion of rivers and estuaries and the protection of towns and villages from the flooding of rivers and estuaries, the sum of 2,454,131 dollars had been expended on the 9 works begun since 1929. Of this sum, 1,227,061 dollars represents the cost of imported materials, 736,230 dollars that of national materials, 466,240 dollars that of labour and 24,600 dollars the amount expended in application of social legislation. The execution of work begun prior to 1929, the total cost of which amounts to 5,528,026 dollars, was also completed, the amount expended in 1929 being 1,614,128 dollars. Of this sum, 1,105,670 dollars was expended on national materials, 484,250 dollars on labour and 24,200 dollars on the application of social legislation.

I.

(a) All the works begun in 1929 have been completed.

(b) At the present time, one drinking-water service is being installed and 7 services are being improved. The total cost of these works amounts to 3,257,000 dollars, of which 1,553,000 dollars has already been spent.

As regards sewage works, 5 services are being installed and 3 are being extended. The total cost of these works amounts to 12,958,000 dollars, of which 9,300,000 dollars has been expended to date.

As regards river works, 7 canalisations and works for the protection of towns and villages are being carried out at a total cost of 1,940,000 dollars, of which 798,000 dollars has been expended to date.

II.

Drinking-water and sewage works and works for the canalisation of rivers and estuaries are carried out by inclusive contracts, for which public tenders are invited. Works for the protection of towns and villages are carried out for the Administration by the engineers of the Department. All works are executed under the direct supervision of the Hydraulics Department of the General Directorate of Public Works.

III.

During 1929, 1930 and 1931, the works carried out were borne on the extraordinary budget, which was financed by foreign loans.

During 1932 and 1933, most of the works were borne on the ordinary budget, funds for the remaining works being furnished in virtue of special laws designed to combat unemployment, the application of which was made possible by means of internal loans.

In 1934, the works will be borne on the ordinary budget of the Republic.

DEPARTMENT OF ARCHITECTURE.

WORKS CARRIED OUT FROM 1929 TO DATE.

Since 1929, the Department of Architecture has put in hand the construction of a large number of public buildings and the extension or partial reconstruction of others which were occupied and in use.

The total cost of these works amounts to 105,083,737 dollars, distributed as follows :

| | Dollars |
|--|------------|
| Materials | 42,033,494 |
| Labour..... | 59,897,730 |
| Application of social legislation..... | 3,152,513 |

A sum of 84,495,234 dollars has been expended on the buildings which have been completed; of this sum, 33,798,093 dollars was expended on materials, 48,162,283 dollars on labour and 2,534,858 dollars on the application of social legislation.

The total cost of repairs to important buildings and new works on premises already in use amounts to 20,588,503 dollars; the amount expended on materials being 8,235,401.9 dollars, on labour 11,735,446 dollars and on the application of social legislation 617,656 dollars.

Particulars of the sums expended on new works, classified according to the nature of the various services, are given below :

| | Dollars |
|--|------------|
| Buildings for various public administrative services.. | 37,674,551 |
| Schools and educational establishments | 43,808,562 |
| Police barracks..... | 4,791,601 |
| Swimming-pools | 5,603,912 |
| Stadia | 1,709,249 |
| Courts of Justice and prisons | 8,700,799 |
| Fruit depots, packing-house, etc..... | 970,277 |
| Communal dwelling for workmen | 1,824,786 |

The chief buildings constructed since 1929 are as follows : Premises for a Ministry, consisting of fourteen stories and three basements and covering 19,953.31 square metres;

warehouses for State supplies, consisting of four stories and covering 7,831.25 square metres; a Presidential residence; a mint; courts of justice in the capital; two Government buildings; an Institute of Forensic Medicine; an Institute of Bacteriology; an Advanced School of Engineering and Architecture; a Dental School; a school for the study of pharmacy; four buildings intended for secondary education; four large primary schools in different parts of the country; a training-school for primary teachers; a building to be used by the police for identification purposes; two police barracks; a polytechnic for minors; offices for the administration of the national water-supply and sewage disposal services; a building containing laboratories for the fiscal control services; a stadium and four heated swimming-pools; a fruit depot and packing-house for the export of fruit; and a large number of less important works.

(a) The following works, which were begun in 1929, have been suspended : a Government building; an historical museum; a natural history museum; two large primary schools; a building for the research services, and a stadium.

(b) The following works, which were also begun in 1929, are not yet completed but are in use : a court of justice; two communal dwellings for workmen; a secondary school at Santiago; premises for various public administrative and judicial services in two towns; a stadium.

A request has been made for the insertion next year of a sum of 27 million pesos in the general budget law of the Republic for the construction of the following buildings : two buildings for various public administrative and judicial services in two towns; a building for the General Directorate of Customs of the Republic; another for Posts and Telegraphs; eight prisons; a school of mining and nitre exploitation; two police barracks; a building for the Treasury and Revenue Office; twenty-one primary schools; a technical education wing to be added to the School of Arts and Crafts; an industrial training school; a wine cellar, and a zootechnical station.

The works are carried out for the Administration by private treaty and, at the present time, chiefly by means of contracts for which public tenders are invited, these contracts being placed either on inclusive terms or at prices per unit.

During the period when the economic crisis was at its height in the country, most of the works were carried out by the Administration itself, so as to provide work for the largest possible number of men without having recourse to contractors and avoiding the use of machinery.

During the years 1929-1931 inclusive, the works were borne on the extraordinary budget of the Republic, which was financed by foreign loans.

Since 1932, the works have been borne on the ordinary budget, funds being also provided under special laws designed to give employment to the unemployed on public works. These funds are raised by internal loans and various general contributions or taxes.

CHINA.

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[*Translation from the Chinese.*]

I. REPORT OF THE MINISTRY OF COMMUNICATIONS ON WORK CONNECTED WITH TELEGRAPH, TELEPHONE AND WIRELESS BROADCASTING.

I.

(a) *Principal Works of Major Importance completed since 1929.*

I. *Telegraph.*

1. Establishment of 6,508 miles of overhead lines, 488 feet of underground cables and 24,988 feet of submarine cables;
2. Establishment of a Simplex Creed transmitter between Nanking and Shanghai;
3. Establishment of a teleprinter between the Shanghai Bureau and the International Wireless Station;
4. Establishment of 17 Wheatstone transmitters from Nanking to Peiping and elsewhere;
5. Establishment of 6 Wheatstone repeaters in Chin-Kiang and other places;

6. Establishment of Morse duplex (one set) from Hang-Chow to Shao-hing;
7. Establishment of 28 receiving wireless stations and 79 transmitters; electric power: from 2 kilowatts down to 50 watts;
8. Establishment of an international telegraph station with 9 transmitters, the large one with capacity of 20 kilowatts and the small one with capacity of 2 kilowatts. The station can communicate with the United States of America, France, Germany, Japan, the United Kingdom, the Philippines and the Netherlands;
9. Establishment of 2 shore wireless stations;
10. Repair of wires: 27,739 miles;
11. Conversion of Wheatstone duplex between Nanking and Tientsin;
12. Establishment of 4 sounders;
13. Establishment of one 200-volt, 100 ampere-hour storage battery at the Shanghai Bureau.

II. Telephone.

1. Telephones in Nanking are being converted from common battery to the automatic system, with a capacity of 5,000 lines;
2. Telephones in Shanghai are being converted from common battery into the automatic system with a capacity of 3,000 lines; and 600 lines of common battery were established;
3. Telephones in Hankow are being replaced by the automatic system on 8,000 lines;
4. Telephones in Tsingtao are being replaced by the automatic system on 4,900 lines;
5. Increase of 500 lines on automatic system at Tientsin;
6. Increase of 700 lines on common battery system at Shou-Chow;
7. Establishment of 190 miles of Tolls telephone lines;
8. Establishment of 2 pairs of Tolls telephone lines between Shanghai and Nanking;
9. Establishment of 1 pair of Tolls telephone lines between Peiping and Pao-tin.

(b) Works now proceeding.

I. Telegraph.

1. Establishment of 449 miles of land wires between Ching-Liao and Chien-Ning;
2. Establishment of 5 Creed transmitters between Hankow and Nanking and other places;
3. Establishment of teleprinter (5 wires) between the Shanghai Bureau and the General Wireless Station;
4. Increase of 4 250-ampere storage batteries at the Nanking Bureau;
5. Improvement of submarine cable equipments at Shanghai and Chefoo;
6. Establishment of 2 shore wireless stations (500 watts) at Fuchow and Hsia-men;
7. Replacement of 2 shore wireless stations with a capacity of 3,000 watts at Tsingtao and Shanghai;
8. Establishment of a station to determine direction of wind;
9. Establishment of 3 frontier wireless stations in Tung-Sung, Ning-Hsia and Pailing-Miao;
10. Experimental establishment of communication with Italy;
11. Repair of 350 miles of land wires.

II. *Telephone.*

1. Increase of 499 miles of Tolls telephone lines between Nanking and Shanghai.

(c) *Work now beginning or projected.*

I. *Telegraph.*

1. Establishment of 482 miles of land wires;
2. Repair of 5,845 miles of land wires;
3. Establishment of 3 wires of Creed transmitter between Nanking and Peiping;
4. Establishment of teleprinter (2 wires) between the Nanking Bureau and the Drum Tower of Nanking;
5. Establishment of Wheatstone duplex (18 wires) between Nanking and Nan-chang;
6. Establishment of Wheatstone transmitter (direct line), 5 wires between Hankow and Kwang-Chow;
7. Establishment of 4 Morse duplex transmitters between Chin-Kiang and Anking;
8. Replacement of 150 sounders;
9. Conversion of the simple wires by telephone instruments—increase to 300 sets in 1934;
10. Establishment of 7 2-kilowatt automatic transmitters at Shanghai and elsewhere;
11. Establishment of 3 wireless stations at Yen-Chang and elsewhere;
12. Establishment of 16 frontier wireless stations in Mongolia, Tibet, Ning-Hsia, Sinkiang, Shansi, Kansu, Sikang, Sui-Juan and Chahar;
13. Reorganisation of shore wireless stations.

II. *Telephone.*

1. Establishment of telephone lines in the nine provinces. Length : 3,460 miles;
2. Increase of 3,504 miles of Tolls telephone lines in the nine provinces;
3. Establishment of a Tolls telephone system throughout the province of Kiang-Shu. Length : 2,425 miles;
4. Establishment of Tolls telephone lines in Kiang-Si. Length : 2,500 miles;
5. Establishment of Tolls telephone lines in An-Kwei. Length : 800 miles;
6. Establishment of Tolls telephone lines in Fukien. Length : 900 miles;
7. Establishment of Tolls telephone lines between Tientsin and Tsi-Nan. Length : 348 miles;
8. Establishment of 12 municipal telephones at Nan-chang and eleven other places;
9. Extension of the telephone service at Tsingtao and three other places;
10. Establishment of 3 national wireless stations at Shanghai and elsewhere;
11. Establishment of international wireless telephony;
12. Improvement of the telephone installations at Taiyuan and four other places.

III. *Wireless Broadcasting.*

1. Establishment of a 10-kilowatt wireless broadcasting station;
2. Re-equipment of the Peiping wireless station;
3. Establishment of short-wave international wireless broadcasting station.

2. REPORT ON CIVIL ENGINEERING WORKS OF THE MINISTRY OF RAILWAYS.

RAILWAYS.

I.

(a) Work on the railways was put in hand in 1929 and has now been completed. The following have been officially opened for traffic :

1. The Shao-Chow - Lok-Chang section (50 miles) of the Yueh-Han Railway.
2. The Lina-Pao - Hwa-Yin section (96 miles) of the Lung-Hai Railway.
3. The Hangchow - Yö-Shan section (345 miles) of the Hang-Kiang Railway.

(b) Railways under construction :

1. The Lok-Chang - Chu-Chow section (about 360 miles) of the Yueh-Han Railway.
2. The Hwa-Yin - Shan section (18 miles) of the Lung-Hai Railway.
3. The Tai-êr-Chung - Chao-Tun section (about 30 miles) of a branch line of the Lung-Hai Railway.
4. The Yü-Shan - Nan-Chang section (about 300 miles) of the Yü-Ping Railway.

(c) Railways the construction of which is under consideration or for which plans of construction have already been put in hand :

1. The Si-An - Lun-Chow section (660 miles) of the Lung-Hai Railway.
2. The Si-An - Cheng-Tu section (1,000 miles) of Si-Cheng Railway.
3. The section of the King-Yueh Railway between Nanking and the frontiers of Fu-Kian and Kwang-Tung (upwards of 1,200 miles).

II.

The construction and administration of railways may be classified under four heads as follows :

1. National railways controlled by the Central Government;
2. Public railways controlled by the local governments;
3. Private railways controlled by the owners of the capital;
4. Special railways built by mineowners and used for the transport of their products.

III. Sources of Capital.

The capital of national and public railways is provided by the Central Government or the local governments from their own resources or by the issue of a loan. The capital of private or special railways is provided by the shareholders or mineowners.

IV. Estimate of Allocation of Expenses.

Under the railway accounting regulations, items are shown in the accounts according to their nature, but wages and material are combined under the same head. It is therefore very difficult to estimate wages and material separately.

V. Effects upon Economic Industry and Unemployment.

In China, the relations between railways and economic industry are the same as in foreign countries. As regard unemployment, the relation is not so close.

HARBOURS.

Lian-Yuan harbour in Hai-Chow is situated at the eastern terminus of the Lung-Hai railway. The Dutch Banking Syndicate has contracted to build two small temporary wharves and a dyke, and to dredge an area of water for anchorage. These works were begun in the summer of 1934 and will be finished in the spring of 1936.

3. GENERAL DESCRIPTION OF THE WORKS OF FLOOD PREVENTION, RIVER CONSERVANCY AND LAND RECLAMATION OF THE NATIONAL ECONOMIC COUNCIL OF THE REPUBLIC OF CHINA

During the summer of 1931, the Yangtse and other large rivers in the central part of China overflowed simultaneously, and a disastrous flood, almost unprecedented in Chinese history, resulted. This flood, which extended from the sea-coast of North Kiangsu Province through the Grand Canal, the Huai River valley, south of the Yellow River, to the city of Shasi on the Yangtse, covered an area of 181,000 square kilometres. For immediate relief work, 450,000 tons of American wheat was loaned to China. With the sinews of war on flood available, the attack was immediately begun by organising the Flood Relief Commission, which, in addition to emergency relief, agricultural relief and epidemic prevention work, embarked in the task of repairing and rebuilding dykes with a view to their permanent reconstruction by the labour relief corps. In the same winter, seventeen labour relief districts were established and began work. In August 1932, a large portion of the constructional work was completed, and labour relief subsequently came to an end. The unfinished portion was taken over by the National Economic Council, which, besides the works of dyke repairing and river dredging left over by the National Flood Relief Commission, undertook to construct culverts, bridges and sluice-gates at the essential and requisite places. Toward the end of 1933, all the works originally planned were completed at a total expenditure of 23,900,000 dollars. More than 7,800 kilometres of dykes were required along the rivers, the earthworks amounting in volume to 105,000,000 cubic metres. Bank protection works at fifty-four dangerous places and another 6 kilometres of dykes were constructed. In addition, 321 kilometres of waterways were dredged to a suitable depth with an excavation of 13,850,000 cubic metres of earth. There were constructed 125 culverts, 3 bridges and 2 sluice-gates. The dykes thus repaired are all higher than the flood water-level of 1931, and are strong enough to avert the recurrence of flood. These constructional works have been largely instrumental in protecting farms from inundation, providing relief to a million of famine labourers and giving protection to millions of people inhabiting vast stretches of agricultural land against the damages of disastrous flooding.

Recognising the importance of hydraulic engineering works, the National Economic Council has not only taken over the unfinished works left over by the National Flood Relief Commission, but has also given considerable attention in its programme of reconstruction to questions of river conservancy, flood prevention and land reclamation.

The hydraulic engineering works of the National Economic Council for 1934 may be grouped in two categories—namely, works in progress and works in contemplation.

LIST OF THE WORKS OF FLOOD PREVENTION, RIVER CONSERVANCY AND LAND

(a) Works

| Classification | Rivers | District | General description | |
|--|----------------------------|--|--|--------------------|
| Flood prevention (dyke repairing) | Yangtse River | Kiangsu, Anhui, Kiangsi and Hupeh Province | Earth embankment 2,020 kilometres in length and bank protection at 36 places | |
| | Kan Ho and Poyang Lake | Kiangsi Province | Earth embankment 606 kilometres in length | |
| | Han River | Hupei Province | Earth embankment 477 kilometres in length and bank protection at 18 places | |
| | Tungting Lake | Hunan Province | Earth embankment 3,000 kilometres in length | |
| River conservancy | Pe Fei River | Anhui Province | Earth embankment 1,000 kilometres in length | |
| | Grand Canal | Kiangsu and Shantung Provinces | Earth embankment 340 kilometres in length | |
| | I, Lo, Sha and Ying Rivers | Honan Province | Earth embankment 370 kilometres in length and bank protection 6 kilometres in length | |
| | Huai River | Anhui Province | River bed dredged for a distance of 26 kilometres | |
| | Lee Hsia Ho District | Kiangsu Province | River bed dredged for a distance of 127 kilometres | |
| | I, Lo, Sha and Ying Rivers | Honan Province | River bed dredged for a distance of 168 kilometres | |
| | Huai River | Anhui Province | Number of culverts constructed : 57 | |
| Land reclamation (culverts and sluice-gates) | Ying River | Anhui Province | Number of culverts constructed : 29 | |
| | Kuo River | Anhui Province | Number of culverts constructed : 7 | |
| | Kuai River | Anhui Province | Number of culverts constructed : 4 | |
| | Pe - Fei River | Anhui Province | Number of culverts constructed : 21 | |
| | Lo River | Honan Province | Number of culverts constructed : 7 | |
| | Tou-lung-kong | Kiangsu Province | One tidal sluice constructed | |
| | Ho-to-ho | Kiangsu Province | One tidal sluice constructed | |
| | Bridges | Ying River | Honan Province | 3 bridges repaired |

(b) Works

| | | | |
|---|----------------|------------------|---|
| Flood prevention (dyke repairs) | Yangtse River | Hupei Province | Earth embankment 166 kilometres in length and bank protection at 80 places |
| | Han River | Hupei Province | Earth embankment 25 kilometres in length and bank protection at 41 places |
| Land reclamation (sluice-gates and irrigation canals) | Kinshui | Hupei Province | Constructing a closing dam across the river and installing sluice-gates |
| | Wang-chia-Kang | Kiangsu Province | Construction of one tidal sluice |
| | Chu-kang | Kiangsu Province | Construction of one tidal sluice |
| | Lo - Ho | Shensi Province | Construction of the Lo - Go irrigation project |
| Surveying | Ching-ho | Shensi Province | Repair of Wei-pei irrigation works |
| | Yellow River | Suiyuan Province | Repair of the Saratsi irrigation works |
| | Yellow River | Kansu Province | Repair and construction of canals |
| | Yellow River | Ninghsia | Repair of canals |
| | Yangtse River | Hupei Province | Aerial survey in Hupei Province along Yangtse River. |
| | Han River | Hupei Province | Reconnaissance and hydrometrical survey of Yangtse and Han Rivers. Hydrometrical survey of rivers and lakes, with the participation of the Hunan Provincial Government and the Ministry of Interior |
| Research work | Yellow River | Hunan Province | Request to Professor Engels, a German hydraulic engineering expert, to continue the laboratory experiments relating to the works on the Yellow River |

(c) Works in

| | | | |
|--|--------------|------------------|---|
| Land reclamation and flood prevention | Feng-ho | Shansi Province | Construction of reservoirs, dams and roads, repairing of dykes, and improving of irrigation works |
| | Yellow River | Suiyuan Province | Repairs of canals Ho-tou |
| Meteorological and hydrometrical surveying | Wei Ho | Shensi Province | Irrigation scheme in the valley of the Wei - Ho |
| | Main rivers | Whole country | Standardisation of surveying methods |
| Regulation of rivers | Main rivers | Whole country | Radical scheme for regulating the main rivers |

RECLAMATION OF THE NATIONAL ECONOMIC COUNCIL, OF THE REPUBLIC OF CHINA.

accomplished.

| Beneficial results after completion | Total expenditure | Sources of expenditure | Remarks |
|--|-------------------|--|---|
| | Dollars | | |
| All the dykes raised and strengthened sufficiently to prevent inundations on the scale of those which occurred in 1931 with a flood area of 181,000 square kilometres | | A large portion of the expenditure was paid with the wheat from the American loan, while a small portion for the dyke repairing along Yangtse and Han Rivers in Hupeh, since December 1932, was from the Hupeh dyke fund | The works here mentioned were carried out from December 1931 to December 1933. Those which were left incomplete by the National Flood Relief Commission when it ceased to exist in August 1932 were taken over and completed by the National Economic Council |
| All the rivers dredged and widened to facilitate the flood discharge for navigation and irrigation The drainage and irrigation of the cultivated land are properly controlled | | | |
| Part of the coastal land in North Kiangsu is no longer flooded by sea-water and is therefore capable of being reclaimed More convenient communications | 23,900,000 | | |

in Progress.

| | | | |
|--|-----------|--|--|
| The land along Yangtse and Han Rivers in Hupeh Province may be protected from flooding | 1,200,000 | Partly from the American wheat and cotton loan and partly from the Hupeh dyke fund | |
| About 900,000 mou of land may be reclaimed | 850,000 | | |
| The coastal districts in North Kiangsu will be protected from flooding by sea-water | 50,000 | | |
| Capable of irrigating 500,000 mou of land | 1,500,000 | | |
| Capable of irrigating 600,000 mou of land | 250,000 | | |
| Capable of irrigating 1,000,000 mou of land | 1,000,000 | | |
| Capable of irrigating 580,000 mou of land | 500,000 | | |
| Capable of irrigating 750,000 mou of land | 200,000 | | |
| Furnishing essential data for the planning of hydraulic engineering works | | | |
| | 200,000 | | |
| Furnishing information as to the regulation of the Yellow River | 60,000 | | |

contemplation.

| | | | |
|---|------------|---------------------|--|
| In the first five years, the annual profit, due to the increase of irrigable land and its value, saving of crops and properties formerly left unprotected, approximates 5,600,000 dollars | 13,000,000 | Under consideration | Engineers are being sent out to make thorough investigations |
| Capable of irrigating 5,000,000 mou of land | 1,330,000 | | |
| Furnishing essential data for hydraulic engineering designing Prevention of flood, reclamation, inland navigation and development of water-power for the growth of industry and commerce | | | Various projects, charts and maps have been collected and brought to Europe by Mr. F. J. M. Bourdrez, the National Economic Council's adviser of hydraulic engineering, for consultation with M. Omodeo, a prominent hydraulic engineering expert, as to the feasibility of the projects |

LIST OF THE WORKS OF FLOOD PREVENTION, RIVER CONSERVANCY AND LAND

(a) Works

| Classification | Rivers | District | General description |
|--|----------------------------|--|--|
| Flood prevention (dyke repairing) | Yangtse River | Kiangsu, Anhui, Kiangsi and Hupeh Province | Earth embankment 2,020 kilometres in length and bank protection at 36 places |
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| | Han River | Hupei Province | Earth embankment 477 kilometres in length and bank protection at 18 places |
| River conservancy | Tungting Lake | Hunan Province | Earth embankment 3,000 kilometres in length |
| | Pe Fei River | Anhui Province | Earth embankment 1,000 kilometres in length |
| | Grand Canal | Kiangsu and Shantung Provinces | Earth embankment 340 kilometres in length |
| Land reclamation (culverts and sluice-gates) | I, Lo, Sha and Ying Rivers | Honan Province | Earth embankment 370 kilometres in length and bank protection 6 kilometres in length |
| | Huai River | Anhui Province | River bed dredged for a distance of 26 kilometres |
| | Lee Hsia Ho District | Kiangsu Province | River bed dredged for a distance of 127 kilometres |
| Bridges | I, Lo, Sha and Ying Rivers | Honan Province | River bed dredged for a distance of 168 kilometres |
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| | Pe - Fei River | Anhui Province | Number of culverts constructed : 21 |
| | Lo River | Honan Province | Number of culverts constructed : 7 |
| | Tou-lung-kong | Kiangsu Province | One tidal sluice constructed |
| | Ho-to-ho | Kiangsu Province | One tidal sluice constructed |
| | | Ying River | Honan Province |

(b) Works

| | | | |
|---|----------------|------------------|--|
| Flood prevention (dyke repairs) | Yangtse River | Hupei Province | Earth embankment 166 kilometres in length and bank protection at 80 places |
| Land reclamation (sluice-gates and irrigation canals) | Han River | Hupei Province | Earth embankment 25 kilometres in length and bank protection at 41 places |
| | Kinshui | Hupei Province | Constructing a closing dam across the river and installing sluice-gates |
| | Wang-chia-Kang | Kiangsu Province | Construction of one tidal sluice |
| Surveying | Chu-kang | Kiangsu Province | Construction of one tidal sluice |
| | Lo-Ho | Shensi Province | Construction of the Lo-Go irrigation project |
| | Ching-ho | Shensi Province | Repair of Wei-pei irrigation works |
| | Yellow River | Suiyuan Province | Repair of the Saratsi irrigation works |
| | Yellow River | Kansu Province | Repair and construction of canals |
| | Yellow River | Ninghsia | Repair of canals |
| Research work | Yangtse River | Hupei Province | Aerial survey in Hupei Province along Yangtse River. |
| | Han River | Hupei Province | Reconnaissance and hydrometrical survey of Yangtse and Han Rivers. |
| | Tungting Lake | Hunan Province | Hydrometrical survey of rivers and lakes, with the participation of the Hunan Provincial Government and the Ministry of Interior |
| | Yellow River | Whole country | Request to Professor Engels, a German hydraulic engineering expert, to continue the laboratory experiments relating to the works on the Yellow River |

(c) Works in

| | | | |
|--|--------------|------------------|---|
| Land reclamation and flood prevention | Feng-ho | Shansi Province | Construction of reservoirs, dams and roads, repairing of dykes, and improving of irrigation works |
| Meteorological and hydrometrical surveying | Yellow River | Suiyuan Province | Repairs of canals Ho-tou |
| | Wei Ho | Shensi Province | Irrigation scheme in the valley of the Wei-Ho |
| Regulation of rivers | Main rivers | Whole country | Standardisation of surveying methods |
| | | | Radical scheme for regulating the main rivers |

RECLAMATION OF THE NATIONAL ECONOMIC COUNCIL, OF THE REPUBLIC OF CHINA.

accomplished.

| Beneficial results after completion | Total expenditure | Sources of expenditure | Remarks |
|---|----------------------------------|---|--|
| <p>All the dykes raised and strengthened sufficiently to prevent inundations on the scale of those which occurred in 1931 with a flood area of 181,000 square kilometres</p> <p>All the rivers dredged and widened to facilitate the flood discharge for navigation and irrigation The drainage and irrigation of the cultivated land are properly controlled</p> <p>Part of the coastal land in North Kiangsu is no longer flooded by sea-water and is therefore capable of being reclaimed More convenient communications</p> | <p>Dollars</p> <p>23,900,000</p> | <p>A large portion of the expenditure was paid with the wheat from the American loan, while a small portion for the dyke repairing along Yangtse and Han Rivers in Hupeh, since December 1932, was from the Hupeh dyke fund</p> | <p>The works here mentioned were carried out from December 1931 to December 1933. Those which were left incomplete by the National Flood Relief Commission when it ceased to exist in August 1932 were taken over and completed by the National Economic Council</p> |

in Progress.

| | | | |
|---|--|---|--|
| <p>The land along Yangtse and Han Rivers in Hupeh Province may be protected from flooding</p> <p>About 900,000 mou of land may be reclaimed</p> <p>The coastal districts in North Kiangsu will be protected from flooding by sea-water</p> <p>Capable of irrigating 500,000 mou of land</p> <p>Capable of irrigating 600,000 mou of land</p> <p>Capable of irrigating 1,000,000 mou of land</p> <p>Capable of irrigating 580,000 mou of land</p> <p>Capable of irrigating 750,000 mou of land</p> <p>Furnishing essential data for the planning of hydraulic engineering works</p> <p>Furnishing information as to the regulation of the Yellow River</p> | <p>1,200,000</p> <p>850,000</p> <p>50,000</p> <p>(Subsidy to Kiangsu Province)</p> <p>1,500,000</p> <p>250,000</p> <p>1,000,000</p> <p>500,000</p> <p>200,000</p> <p>200,000</p> <p>60,000</p> | <p>Partly from the American wheat and cotton loan and partly from the Hupeh dyke fund</p> | |
|---|--|---|--|

contemplation.

| | | | |
|--|------------------------------------|----------------------------|---|
| <p>In the first five years, the annual profit, due to the increase of irrigable land and its value, saving of crops and properties formerly left unprotected, approximates 5,600,000 dollars</p> <p>Capable of irrigating 5,000,000 mou of land</p> <p>Furnishing essential data for hydraulic engineering designing</p> <p>Prevention of flood, reclamation, inland navigation and development of water-power for the growth of industry and commerce</p> | <p>13,000,000</p> <p>1,330,000</p> | <p>Under consideration</p> | <p>Engineers are being sent out to make thorough investigations</p> <p>Various projects, charts and maps have been collected and brought to Europe by Mr. F. J. M. Bourdrez, the National Economic Council's adviser of hydraulic engineering, for consultation with M. Omodeo, a prominent hydraulic engineering expert, as to the feasibility of the projects</p> |
|--|------------------------------------|----------------------------|---|

Of the works in progress, the following deserve mention :

1. Repairs of main dykes along the Yangtse and the Han Rivers in Hupeh Province with earth embankment 191 kilometres long and bank protection works at 121 places, at an estimated cost of 1,200,000 dollars.

2. Construction of the Kinshui project to protect the Kinshui district from flooding by the Yangtse River; estimated cost, 850,000 dollars. The completion of this project will benefit about 900,000 mou of land for agricultural purposes (each mou is equivalent to 614.4 square metres).

3. Construction of the Lo Ho irrigation project in Shensi Province, at a cost of about 1,500,000 dollars, capable of irrigating 500,000 mou of land.

4. Repairs to the Wei-pei irrigation works in Shensi Province, at a cost of 250,000 dollars, capable of irrigating 600,000 mou of land.

5. Repair of the Saratsi irrigation works in Suiyuan Province, at a cost of 1,000,000 dollars, capable of irrigating 1,000,000 mou of land.

6. Repair and excavation of canals in Kansu Province, at a cost of 500,000 dollars, capable of irrigating 580,000 mou of land.

7. Repairs of the canals in Ninghsia Province, at a cost of 200,000 dollars, capable of irrigating 750,000 mou of land.

8. In order to speed up the completion of the topographical survey along the Yangtse River, an aerial survey is to be made of the country between Shasi and Chopaikow, an area of 2,200 square kilometres. A hydrometrical survey is being conducted along the Yangtse and the Han Rivers. In co-operation with the Ministry of the Interior and the Provincial Governments, a hydrometrical survey is made along the lakes and rivers in Hunan and Hupeh Provinces also. The total expenditure for these surveying works is approximately 200,000 dollars.

9. Subsidy of 50,000 dollars to the Kiangsu Provincial Government for the construction of sluice-gates at Wang-chia-kang and Chu-kang to prevent flooding by sea-water.

10. Request was made to Professor Engels, a German hydraulic engineering expert, to continue his Yellow River experiments—work to begin on July 1st, 1934, with a subsidy of 60,000 dollars from the National Economic Council and with the participation of the National Economic Council's Chinese experts.

Of the works in contemplation, the following may be noted :

1. Flood prevention and irrigation works on the Feng-ho in Shansi Province.
2. The Ho Tao (Yellow River) irrigation project.
3. Regulation and irrigation works on the Wei Ho in Shensi Province.

The above works will be started pending the completion of the survey.

For the permanent regulation of the main rivers in China, various projects, charts and maps have been collected and brought to Europe by Mr. F. J. M. Bourdrez, the National Economic Council's adviser on hydraulic engineering, for consultation with M. Omodeo, an eminent hydraulic engineering expert, as to the feasibility of these projects. Plans have also been formulated to standardise surveying methods, both hydrometrical and meteorological, which are an essential prerequisite to the formulation of any hydraulic engineering project.

In order to explain more clearly the hydraulic engineering works of the National Economic Council, the list on pages 64 and 65 has been prepared.

4. GENERAL DESCRIPTION OF WORKS COMPLETED AND PROPOSED ON THE YELLOW RIVER BY THE YELLOW RIVER COMMISSION.

I. INTRODUCTION.

The disastrous flooding of the Yellow River in 1933 caused the most serious distress among the population of Honan, Ho Pei and Shantung Provinces and the inundated area was estimated to be 998 square kilometres in Honan, 2,620 square kilometres in Ho Pei, and 2,741 square kilometres in Shantung. The whole inundated area amounted to 6,359 square kilometres; 500,000 houses were demolished; 3,200,000 refugees were rendered homeless; and 3,000 persons were drowned. The maximum discharge of the Yellow River estimated at Shen Hsien Hydrometric Station, in Honan Province, during the night of August 9th/10th, 1933, was 23,000 cubic metres per second at the gauge height of 298.23 metres above Taku Datum, and the total loss of cattle and property was estimated at 230,000,000 dollars.

II. CLOSING OF BREAKS.

Owing to the wear and tear of time, the levees of the three provinces were in a dilapidated condition, and during the flood in 1933 were overflowed and broken at numerous places. The breaks at Wen Hsien, Lan Feng and Kao Cheng, in Honan Province, and at Shiao Peng Chuang and Shih Tou Chuang, in Ho Pei Province, were the most noteworthy. The flood, after breaking through the levee at Shih Tou Chuang, meandered through eight hsiens on its way to find a new watercourse, and finally combined with its old channel at Tao Cheng Pu, in Shantung Province.

After the floods in 1933, the Yellow River Commission was set up in the same year, by order of the National Government, with instructions to prepare all projects for the improvement of the river and its tributaries. Projects for closing all the breaks were proposed by the Commission, executed by the Yellow River Flood Relief Commission and financed by the National Government at a cost of 1,500,000 dollars. About 50,000 refugees were employed on the work, and 200,000 refugees, including the women and children belonging to their families, were saved from starvation.

III. RECONSTRUCTION WORKS.

As soon as all the breaks had been closed, reconstruction works were immediately brought into consideration. The projects proposed by the Yellow River Commission are: (1) the repair of levees, spurs, groynes and fascine works in Honan, Ho Pei and Shantung Provinces; (2) the improvement of the watercourse in the above provinces; (3) the repair of the Taihong Dyke, in Honan Province, and the Golden Dyke, in Ho Pei Province; (4) the prolongation of the levees on both banks of the river from Li Tsin, in Shantung Province, to the estuary; (5) the regulation of the watercourse in the same section by dredging and the construction of groynes and jetties; and (6) the repair of levees and spurs in Shansi and Shensi Provinces.

The estimated cost under items (1), (2) and (3) is 13,000,000 dollars, under items (4) and (5) 8,000,000 dollars and under item (6) 3,000,000 dollars. The total estimate amounts to 24,000,000 dollars, of which about 10,000,000 dollars are allocated for labour on the repair of levees, 8,000,000 dollars for broken stone, 3,000,000 dollars for fascines for the repair of spurs and bank revetments, 2,000,000 dollars for dredgers and 1,000,000 dollars for miscellaneous expenditure. About 1,000,000 people will be employed when all the works are carried into execution.

The expenditure is charged to the extraordinary budget of the National Government, and definite steps as to the methods of raising the money will be taken in the near future.

In order to finish the repair of levees before the coming of the flood this year, the provincial governments of Honan, Ho Pei and Shantung have already raised enough money by internal loan to be able to repair the levees and spurs within each province by reinforcing the width and raising the crown level of levees two metres above the highest flood-level of 1933. The construction work is in the charge of the Yellow River Conservancy Bureau of each province, and all poor farmers living near the levees are employed on a liberal scale. The work commenced in May, and will be finished by the end of July.

IV. SCHEMES FOR TENTATIVE STUDIES AND IMPROVEMENT WORKS.

The Yellow River, the drainage area of which is 726,000 square kilometres, is an alluvial stream heavily laden with silt, and its channel is gradually and continuously silting up. This continuous process of sedimentation is regarded as one of the most serious causes of trouble. Upon the inauguration of the Yellow River Commission, schemes for tentative studies and improvement works were first worked out, and suitable steps will be taken in due course for their execution. They are briefly enumerated below :

(a) *Topographical and River Bed Survey.*—The topographical features of the Yellow River are variable throughout its whole course. Below Kung Hsien, in Honan Province, where the flood casualties in 1933 were extremely serious, the survey should be a very detailed one; from Kung Hsien to Han Cheng, in Shensi Province, less detailed; from Han Cheng to T'o K'i T'o, in Sui Yuan Province, as the river passes through gorges in the mountain, the survey will require to go into still farther details; from T'o K'i T'o to Shih Tsui Tze, in Ninghsia Province, as the river flows through plains where irrigation and navigation are possible, it should be more detailed; and above Shih Tsui Tze, less detailed again. The topographical features of the upper course and at the estuary are recorded by means of aerial photographic mapping, and the survey of the whole course will be accomplished by five surveying parties in five years. The estimated expenditure amounts to 1,500,000 dollars. The topographical survey works already completed by the Yellow River Commission are as follows :

1. A topographical survey of the Yellow River from Pin Han railway bridge upstream to Meng Tsin Hsien.
2. The survey of levees on both banks from Pin Han railway bridge downstream to Tientsin Pukow railway bridge at Lo Kow, in Shantung Province.
3. A topographical survey near Huang Hwa Tse, in Shantung Province, at the junction of the southern inner and outer dykes.
4. A topographical survey of the Yellow River at Shih Tou Chuang, in Ho Pei Province, where the levee on the north bank of the river was broken during the flood in 1933.
5. A topographical survey of the Yellow River in the vicinity of Lan Feng, in Honan Province.
6. A topographical survey of the Yellow River in the vicinity of Hei Kang Kou, near Kaifeng, in Honan Province.
7. A reconnaissance survey of the Yellow River from Lan Chow, in Kansu Province, upstream.

(b) *Hydrometric Survey.*—The hydrometric survey includes a number of determinations such as velocity of current, quantity of discharge, elevation of water surface, and amount of silt contained in water, besides the meteorological features pertaining to

rainfall, evaporation and direction of wind. Along the Yellow River and its principal tributaries such as the Rivers Huang, Fen, Wei, T'ao, Lo and Tsin, 20 hydrometric stations, 15 gauging stations, 7 weather stations and 283 rainfall stations are to be established. The budget of expenditure is estimated to be 100,000 dollars. The hydrometric and rainfall stations already established by the Yellow River Commission are as follows :

1. Eleven hydrometric stations have been established along the Yellow River, and their sites have been carefully chosen.
2. Two hydrometric stations for the Wei River, one for the Fen River, one for the Lo, and one for the Tsin have been established.
3. One hundred rainfall stations have been established, mostly in co-operation with the provincial authorities. They are scattered over the whole of the drainage area, and the number of stations will be increased progressively.

(c) *Research and Planning.*—The environments and influences to be investigated in connection with the improvement of rivers are so complicated that tentative studies must be undertaken to provide a basis before any final scheme can be drafted. The first hydraulic laboratory of China, incorporated by a combine of eight conservancy organisations, will shortly be established at Tientsin, where model experiments, as well as regulation works, will be tested. Moreover, near Kaifeng and Tsinan, straight reaches of the river will be chosen for experimental works, and another laboratory of model experiments will be established for supplementary study. The estimated cost amounts to 2,000,000 dollars.

(d) *Permanent Improvement Works.*—The projects for permanent improvement works are of eight different kinds :

1. Deepening the lower course of the river by regulation works.
2. Cutting off sharp bends.
3. Flood prevention by the construction of overflow dams and detention reservoirs.
4. Development of water-power.
5. Regulating the lower course of the river for navigation.
6. The control of soil washing by bank revetments and terracing of hilly farms.
7. Reafforestation along the upper course of the river.
8. Regulating the principal tributaries, both for flood prevention and navigation development.

The above projects will be prepared in due course, after the tentative researches to be conducted by means of model experiments and topographical and hydrometric surveys have furnished enough data for the basis of a final scheme. A rough estimate of the cost amounts to 100,000,000 dollars, and after the accomplishment of all the fundamental works, flooding may be prevented, while, with the development of navigation, commerce and industry in the north-western provinces of China are sure to prosper. The Yellow River being one of the largest in China, the National Government pays much attention to it, and will finance all the projects of the Yellow River Commission for its improvement.

5. HUAI RIVER SYSTEM.

Engineering Works to be executed in the First Instance.

HUAI RIVER COMMISSION.

Section I.—Two-Year Construction Programme.

(a) *Works to be carried out in the Two-Year Construction Programme.*

Among our projects for flood control, and for navigation and irrigation in the Huai River system, it has been decided that the following works will be executed in the first instance and without avoidable delay.

| Division of works | Estimated cost Dollars | Remarks |
|---|---------------------------|------------------------|
| 1. Construction of Shaopai lock | 380,000 | Now in progress |
| 2. Construction of Huaiyin lock | 400,000 | Now in progress |
| 3. Excavation of the main channel of Shaopai and Huai yin locks, and repair of west dyke of the Inner Grand Canal | 450,000 | Now in progress |
| 4. Repair of Weichi Chai as a sluice..... | 50,000 | To be carried out soon |
| 5. Construction of Chiangpa regulator and the main channel | 5,250,000 | To be carried out soon |
| 6. Dredging of the navigation channel below Liuchai | 250,000 | To be carried out soon |
| 7. Construction of Yenho lock and the main channel | 500,000 | To be carried out soon |
| 8. Construction of Liulauchien lock and the main channel, with a spillway at head of the Liutang Ho | 650,000 | Now in progress |
| 9. Dredging of the middle grand canal below Liulauchien lock | 150,000 | To be carried out soon |
| 10. Preliminary excavation of the flood channel at Kin Kou | 500,000 | To be carried out soon |
| 11. Overhead and contingency expenses | 420,000 | |
| Total... | 9,000,000 | |

The funds required for the works listed above are provided by the National Government; they will be refunded by the Commission from the profits earned after construction and utilised for other public works.

(b) *Description of Works.*

1. *Shaopai Lock.*—The site of Shaopai lock will be located on the edge of the Shaopai Lake near the west dyke of the Grand Canal and opposite Shaopai Chen. The water-level of the upper pool varies from 7.3 metres to 5.87 metres and the lowest water-level of the lower pool is 0.4 metre. The maximum lift of Shaopai lock is therefore 7.7 metres providing 2.5 metres as freeboard for the high flood-water in the chamber and 2.5 metres for navigation depth. The depth from the bottom to the top of the lock will be 12.7 metres. The clear width and length will be 10 metres and 100 metres respectively, sufficient to accommodate a ship of 900 tons maximum or 10 ships of 40 tons. Both the upper and lower mitre gates will be made of structural steel. The thrust walls will be made of reinforced concrete but the sides of the lock chamber will be made of sloping revetted banks. The chamber bottom will also be paved with ripraps. The estimated cost of the Shaopai lock is about 380,000 dollars.

2. *Huaiyin Lock.*—The Huaiyin lock will be situated near the south end of the channel joining the Grand Canal from Matou, west of Huaiyin, to Yangchuang. The water-level in the upper pool varies from 16 to 11 metres. The variation of the lower

pool of this lock is the same as in the upper pool of the Shaopai lock. The maximum lift of the Huaiyin lock is therefore 9.2 metres. The clear width and length and navigation depth of the Huaiyin lock will be the same as for Shaopai lock, but the freeboard will be 1 metre above high-water level. The depth of the chamber will be 12.7 metres. The other arrangements to be made will be similar to those for the Shaopai lock. The estimated cost of the Huaiyin lock is about 400,000 dollars.

3. *Excavation of Shaopai and Huaiyin Main Channels and Repair of West Dyke of the Inner Grand Canal.*—The length of the main channel of Shaopai lock is 800 metres, and that of Huaiyin lock is 1,700 metres. The width of the bottom of these main channels, within one kilometre of the lock is 40 metres for the anchorage of ships and outside of this reach it will be 20 metres. In order to maintain the raised pool of the Inner Grand Canal, the openings and culverts in the west dyke should be closed or repaired, while the dyke of low sections will be raised and enlarged to the required size. The estimated costs of the earthwork of the main channels and the repair of the west dyke total about 450,000 dollars.

4. *Repair of Weichi Chai.*—The Weichi Chai is situated south east of Matou Chen. It was one of the sluices formerly built for controlling the Hungtze Lake water entering into the Inner Grand Canal, but has been out of use for several decades. It will now be utilised again as a sluice for regulating admission of navigation and irrigation waters to the Inner Grand Canal. The structure of this sluice was surveyed and examined carefully in the summer of 1932. The old masonry of the abutments and the wing walls are still in good condition and require only minor repairs. Some stop-logs or a lift gate should be added to form a sluice. The estimated cost of repairing Weichi Chai is about 50,000 dollars.

5. *Chiangpa Regulator.*—The regulator will be composed of 86 movable steel gates of "stoney" system, sliding in grooves in concrete piers. The bottom floor will be made of concrete slabs with paved rip rap at both the entrance and exit ends. The clear opening of each sluice section will be 5 metres high and 7 metres wide. The sill of the opening will be placed at an elevation of 8 metres. There will be also a highway bridge crossing the tops of the piers. The estimated cost of one opening of the regulator is 41,840 dollars and the total cost of 86 openings is about 3,600,000 dollars.

The regulator will be situated on the high land of San Ho Tou, near Chiangpa, where the soil is very suitable for foundation works. The sill of the regulator will be placed at an elevation of 8 metres; the earth at the site of the regulator will be excavated to a depth of 7 metres, for the arrangement of foundation works. The bottom of the main channel below the regulator site will be excavated to a depth of 6.5 metres. The estimated cost of the construction works and of the purchase of land for the main channel is about 1,650,000 dollars.

6. *Dredging of the Navigation Channels below Liuchai.*—The minimum depth of water for the first class of shipping—*i.e.*, vessels with the shallowest draught—is 3 metres throughout. The raised water level of the Inner Grand Canal from Shaopai to Huaiyin will give sufficient depth at the start, after the completion of the improvement works. The Taiping Ho will, however, be completely dry when the Yangtse level at Sankiangyin drops below 0.4 metre (Huai River System Datum). Consequently, the navigation channel of the Taiping Ho from Liuchai to the Ancient Canal requires dredging. The estimated quantity of earth to be removed is 350,000 cubic metres of dredging at 0.40 dollar per cubic metre and 650,000 cubic metres of hand excavation at 0.17 dollar per cubic metre. The total cost of earth removal is approximately 250,000 dollars.

7. *Yenho Lock and the Main Channel.*—The salt transported from the Yenho to the Grand Canal must at present be transhipped and carried overland for a distance of 4 kilometres between Hsipa and Huaiyin. It would be highly advantageous to build a lock with a main channel north-west of Yangchung to connect the Yenho and the Grand Canal; this will facilitate the transport of salt considerably. The conditions and design of this lock will be exactly the same as those for the Huaiyin lock. The cost of the Yenho lock is the same as for the Huaiyin lock—viz., 400,000 dollars. The earthworks for the main channel will necessitate the excavation of 412,000 cubic metres at 0.17 dollar per cubic metre and the construction of 200,000 cubic metres of dyke at 0.05 dollar per cubic metre; the total cost of the earthworks is 80,000 dollars. Compensation for land, houses, etc., will require about 20,000 dollars.

8. *Liulauchien Lock and the Spillway.*—It is of vital importance to exclude the excessive quantities of the very silty Shantung water from the canal system. A lock at Liulauchien should be built with a spillway at the head of the Liutang Ho, so that surplus water will be diverted into the Liutang Ho and carried through Kwan Ho to the Yellow Sea. The upper pool of the Liulauchien lock varies from 20.2 to 19 metres and the lower pool varies correspondingly to the upper pool of the Huaiyin lock. Thus the maximum lift of the Liulauchien lock is 9.2 metres. The design will be similar to that for the Huaiyin lock and the cost will also be 400,000 dollars. The earthwork of the main channels of both the lock and the spillway will necessitate the excavation of 200,000 cubic metres at 0.17 dollar per cubic metre; and the construction with borrowed earth of 100,000 cubic metres of dyke at 0.20 dollar per cubic metre. The total cost of the earthwork will be 64,000 dollars, and compensation for land, houses, etc., will require 36,000 dollars.

The spillway will be designed to carry a discharge of 1,000 cubic metres per second, and will be composed of 10 openings with stone gates. The design of the structure has just been started; the cost of the structure is roughly estimated to be 150,000 dollars.

9. *Dredging of the Middle Grand Canal.*—Below Liulauchien lock, the channel-depth for a stretch of about 20 kilometres is not sufficient for navigation during the low-water season. The earthwork is estimated to require 200,000 cubic metres of dredging at 0.40 dollar per cubic metre and 400,000 cubic metres of hand excavation at 0.17 dollar per cubic metre. The total cost is approximately 150,000 dollars.

10. *Preliminary Excavation of the Flood Channel at Kin Kou.*—It is financially difficult at present to construct the proposed main dyke along the flood channel from San Ho to Liuchai. The present scheme is to excavate a deep and narrow channel in the Kin Kou stretch to form a direct short route leading off part of the flood-water—and also to utilise the existing course through the Kaopao Lakes for the rest of the flood-water. Such a newly excavated channel might be widened and deepened gradually by the scouring action of the flood flow. The earthwork of this new channel is estimated to require 2,940,000 cubic metres of hand excavation at 0.17 dollar per cubic metre, and the total cost is about 500,000 dollars.

(c) *Benefits.*

1. *Navigation.*—The Grand Canal in northern Kiangsu is the main navigation route from south to north, but the channel is so shallow at present that, between Chinkiang and Huaiyin, small steamships of one-metre draught, sometimes cannot sail. Above Huaiyin, navigation is absolutely impossible while the east-west waterway between North-Kiangsu and Anhwei is almost broken, and salt is now transported by Lunghia railroad. An old western proverb says “Communication is the mother of civilisation”,

and it may well be that lack of communications is one of the reasons for the backwardness of the Huai River districts. After the completion of the above-mentioned construction works, the main navigation route will be able to run from Sankiangyin, in the north, to the junction of the Lunghai railway; east, to the Kwan Ho and the Yellow Sea; west, to Huaiyuan, in Anhwei; altogether, a navigable distance of about 700 kilometres. The agricultural and mineral products of the Huai River districts and merchandise from Shanghai will certainly throng these waterways. As transport by waterway is much cheaper than by road or railway, this shipping route may be expected to prosper in the near future.

During the latter half of 1931 and throughout 1932 and 1933, observations for navigation statistics were made at Shaopai and Huaiyin, on the Grand Canal, and also at Fushan, on the Huai River. The results are summarised in the table below.

| Year | Observing stations | Upstream freight (tons) | Downstream freight (tons) | Total freight (tons) |
|------------------------------------|--------------------|-------------------------|---------------------------|----------------------|
| 1931: July to December | Shaopai | 171,864 | 180,276 | 352,140 |
| | Huaiyin | 47,757 | 80,655 | 128,412 |
| | Fu Shan | 85,563 | 39,900 | 125,463 |
| | Total | | | 606,015 |
| 1932: January to December | Shaopai | 640,527 | 545,946 | 1,186,473 |
| | Huaiyin | 117,429 | 214,878 | 332,307 |
| | Fu Shan | 43,299 | 33,948 | 77,247 |
| | Total | | | 1,596,027 |
| 1933: January to December | Shaopai | 532,199 | 683,183 | 1,215,382 |
| | Huaiyin | 134,637 | 363,966 | 498,603 |
| | Fu Shan | 24,433 | 27,358 | 51,791 |
| | Total | | | 1,765,776 |

At a rough estimate based on the above table, the annual transport figure will be 360,000,000 ton-kilometres within the first few years. If the tax upon merchandise is 0.003 dollar per ton-kilometre, this will give a total of 1,000,000 dollars per year, lockage and wharfage charges not included.

2. *Irrigation.*—The district of Lishai Ho, east of the Grand Canal, includes a large extent of fertile land and would be a rich agricultural area after the improvement of the Huai River. But as long as the Huai River remains unimproved, inundations and droughts will alternately occur—a permanent handicap to agricultural production. The disasters caused by floods can be easily observed, but those caused by drought are usually ignored. Nevertheless, drought relief is no less important than flood control. The total area east of the Inner Grand Canal and along Tung Yang Canal is estimated to be about 14,000,000 mou. If we assume that one-fifth of the land is irrigated by the Inner Grand Canal and that the loss caused by drought amounts to 3 dollars per mou for one year, the total loss will be 8,000,000 dollars. When the above-mentioned works have been carried out, the Inner Grand Canal could supply, even in time of the most severe drought, enough water to irrigate the whole district of Lishai Ho.

The land east of the Chuang Chang Ho, towards the sea, covers an area of 10,000,000 mou, which might also be reclaimed for cultivation. After the above-mentioned works have been completed, this district's water requirements may be supplied from the Inner Grand Canal, through the Chuang Chang Ho, by the construction of several canals and controlling sluices.

3. *Flood Control*.—At present, the flood-water in the Hungtze Lake cannot escape freely, owing to the barrier represented by the Grass dam built across the San Ho. After the construction of the movable dam at the San Ho, it will be possible to regulate the flood-water so that it can be run off early in the flood season, and the lake will be emptied and fully utilised for storing subsequent flood-water. This will minimise the flood danger to some extent, both in the upper and the lower stretches of the Huai River, even if the outlet main channels have not been improved.

After the completion of the two-year construction programme, it will be possible entirely to exclude from the Grand Canal, below Liulauchien, the flood-water from the Shantung rivers, thus removing one of the great sources of flood damage in the districts situated along the Inner Grand Canal. It will also be possible to divert the Huai River flood-water coming from the Changfu Ho towards the sea by the way of the Salt Canal and the Old Yellow River instead of allowing it to go down into the Inner Grand Canal. This will also decrease the ravages caused by floods in the country east of the Grand Canal, especially between Huaiyin and Kao-Yu.

Section II.—Preliminary Excavation of the flood Channel to the Sea.

The Huai River, lying between the Yellow River to the north and the Yangtze River to the south, rises in Mount Tungpa, in the province of Honan, and flows eastwards to the province of Anhui. Running through Anhui, it receives water from ten big tributaries which drain that province. Reaching the east border of Anhwei, it enters the Hungtze Lake. Formerly, it possessed its own outlet through Kiangsu Province to the Yellow Sea, until some date in the thirteenth century, when the Yellow River burst its banks near Kaifeng, in Honan Province, and usurped the discharge channel of the Huai River, which was consequently forced to accumulate its waters in the lake and to find other means of escape. The Yellow River changed again to a north-easterly course at Kaifeng, in 1825, and later it separated from the Huai River, but the combined channel had been silted up by the sediment of the Yellow River, and the Huai River has been unable to regain its original route to the sea. This channel should be enlarged to aid the escape of Huai River floods. But the enormous quantity of excavation that would be required prohibits the enlargement of the channel throughout its whole extent within a short space of time. A schedule has been prepared with a view to the enlargement of the channel to a width of 35 metres in the bed of the river within the first few years. The further enlargement of the channel will be brought about partly by erosion of the annual floods and partly by subsequent excavation. This preliminary excavation amounts to 67 million cubic metres of earth to be removed by 160,000 labourers within 280 working-days (divided into two years). The work will be started in October this year. The funds required for the work will be supplied by the national and the provincial governments acting in co-operation.

The Chang Fu Ho, an outlet from Hungtze Lake to the new flood channel (described above) was widened and deepened last year by 12,000 labourers removing, in all, 2.2 million cubic metres of earth at an average cost of 0.155 dollar (Mexican) per cubic metre. The funds for the execution of this work were furnished by the National Government.

6. THE PRESENT POSITION (PREPARATORY WORK AND PRELIMINARY SCHEME) IN THE MATTER OF THE GREAT EASTERN HARBOUR.

(Information supplied by the Great Eastern Harbour Development Commission,
Ministry of Communications and Ministry of Railways.)

Section I.—Present Position.

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Section I.—Present Position.

1. *Necessity for developing the Great Eastern Harbour.*

At present, merchandise is concentrated at Shanghai, although the north entrance to the Yangtse River was silted up and closed to navigation years ago, while the south entrance also is very shallow and narrow and it is impossible for big steamers to enter. In spite of the strenuous efforts and large sums of money expended by the Hwangpoo Conservancy Board every year for the dredging of the south entrance, the position grows steadily worse. It is, therefore, necessary to develop the Great Eastern Harbour to take the place of Shanghai.

2. *Site of the Harbour.*

The harbour lies between Chapu and Kanpu, on the north side of Hangchow Bay. It was an important port and a good harbour in the time of the Sung and Yuan dynasties and afterwards, but was later abandoned for hundreds of years. It is situated about half-way down the coast of Asia and can be reached from all the important ports of the world.

3. *Meteorological and Hydrographical Conditions of the Harbour Approach.*

(a) *Water depth.*—Water depth of harbour approach at lowest water-level is about 20 to 30 feet.

(b) *Tide.*—The direction of tide is generally from south-east to north-west. The velocity of tidal current is about 4 to 5 knots per hour.

The range of tide is about 20 to 26 feet at spring tide and 16 to 20 feet at neap tide. The tide rises on an average for 5 to 6 hours and falls for 7 hours.

(c) *Wave.*—The direction of wave is mostly north-east or south-east.

Maximum wave height : 2 metres.

Maximum periodical times of wave : $4\frac{1}{2}$ seconds.

Maximum wave length : 30 metres.

Maximum wave velocity : 7 miles per second.

Maximum wave stroke : 5.2 tons/m².

(d) *Wind and Fog*.—The direction of the wind in Hangchow Bay is mostly north-east and north-west but often south-east during April to August.

Maximum wind velocity : 17 metres per second = 38 miles per hour.

Maximum wind pressure : 28.9 kg./m² (5.9# /□').

The typhoon blows a few times every year. Its maximum velocity is about 22 metres/sec. (50 miles/hr.) and maximum pressure about 49 kg./m² (10# /□'). Fog is a very characteristic phenomenon of Hangchow Bay. It occurs mostly in March and November and, on an average, for about 450 hours a year.

(e) *Rainfall and Evaporation*.—The rainfall is on an average 1,000 millimetres a year. Evaporation is about 680 millimetres a year.

(f) *Temperature, Humidity and Atmospheric Pressure*.—Range of temperature : 36.4° C. to —12° C. Range of comparative humidity : 99.5% to 15%. Range of atmospheric pressure : 789 millimetres to 754 millimetres.

4. *Inland Communications with the Harbour.*

(a) *Waterways*.—The waterway from Chapu, through Pinghu, to Kiahsing; the waterway from Pinghu, through Hwangpoo, to Shanghai; the waterway from Haiyen, through Kiahsing, to South Grand Canal; the waterway from Kanpu, through Changan, to South Grand Canal; the waterway from Haiyen to Pinghu; the waterway from Haiyen to Kanpu; the waterway from Haiyen to Hsiashih.

(b) *Roads*.—The road from Minhong to Hangchow passes through Chapu, Haiyen and Kanpu. The road from Chapu to Pinghu and from Pinghu to Kiahsing. The road from Haiyen to Kiashan is in preparation.

(c) *Railway*.—The Shanghai-Hangchow railway passes through Hsiashih, which is about 30 kilometres from Haiyen.

5. *Comparison of the Great Eastern Harbour and Shanghai.*

(a) The water-depth in the Great Eastern Harbour approach at low water-level is generally above 25 feet and, after dredging, steamers of 30-foot draft can easily get in and out at all times. The water depth outside Woo-Sung-Kou, on the contrary, is only 17 feet at neap tide and big steamers have to wait for the tide before they can berth.

(b) The sand content of the Yangtse River is much greater than that of the Chin-Tang-Kiang. The inlet waterway and estuary of Shanghai Port are often silted up and impassable for shipping, while the Great Eastern Harbour, after completion, will be free from danger of deposit.

(c) The estuary of Hangchow Bay has a width of 60 miles, whereas that of the Yangtse is only 35 to 40 miles wide.

(d) Hangchow Bay, from the estuary to Kanpu, is roughly triangular in shape. From Kanpu westward, the river grows narrower and the slope of the river bed greater, so that the effect of the tide is greatly reduced. For the Yangtse, on the other hand, width and slope are, generally speaking, uniform and flat in the lower reaches.

(e) The Great Eastern Harbour is nearer than Shanghai to Europe, America and Japan.

(f) The price of land in this port is far lower than at Shanghai and the ground being open can be easily utilised for the most economical and modern equipment and buildings.

(g) The Yangtse River is a very important line of transport for Shanghai, but the distance from Wuhu to the estuary will be shortened by about 150 kilometres by the proposed canal from Wuhu to Yihsing through Tai Hu, ending at the Great Eastern Harbour. After the completion of the south-east railway system, this harbour will have better communications than Shanghai.

Section II.—Preparatory Work and Preliminary Scheme.

1. *Preparatory Work done from 1929 to 1931.*

- (a) Triangulation along coast-line, from April 1929 to December 1930.
- (b) Levelling along coast-line, from April 1929 to December 1930.
- (c) Hydrographical survey of the harbour approach, from August 1929 to December 1931.
- (d) Meteorological observation at the harbour approach, from March 1930 to December 1931.
- (e) Sounding of the harbour, May to July 1931.

2. *Preparatory Work to be executed over the Period 1932 to 1941.*

- (a) Surveying, from January 1932 to December 1941.
 - (b) Investigations, from November 1932 to December 1941.
 - (c) Designs, from January 1936 to December 1941.
 - (d) Concluding and compiling the final report, from July to December 1941.
- The total preparatory cost is calculated at 1,150,000 Mexican dollars.

3. *Order of executing the Preliminary Scheme.*

It is contemplated that the whole scheme will be carried out over a space of fifteen years. It is divided into two periods.

(a) The first period is about ten years, for executing and completing Section I of the harbour, the Tung-Hsia railway and the Tung-Wu canal.

The total estimate during this period is 20,700,000 Mexican dollars.

(b) The second period is about five years, for completing the Sections II, III, IV and V of the harbour, together with the other constructional work and equipment.

The total estimate during this period is 44,150,000 Mexican dollars.

4. *Summary.*

| | Mexican dollars |
|--|-----------------|
| (a) Expenditure during preparatory period..... | 1,150,000 |
| (b) Estimate for the first period of execution | 20,700,000 |
| (c) Estimate for the second period of execution..... | 44,150,000 |
| Total... | 66,000,000 |

7. REPORT ON PUBLIC WORKS OF THE RECONSTRUCTION COMMISSION OF THE YANGTSE-KIANG COMMUNICATIONS.

Introduction.

The articles included in this pamphlet have been compiled by the Yangtse River Commission. Some projects have been actually carried out with the co-operation of other organisations, but some are still awaiting execution.

This pamphlet includes a brief account of some general schemes concerning the following subjects :

- I. The dyke-repairing work after the 1931 flood on the Yangtse.
- II. The Kinshui reclamation project.
- III. The regulation project between Kiangyin and Langshan on the lower Yangtse.

The Commission would welcome with gratitude any useful suggestions which might be forwarded to them with regard to the above works.

I. *The Dyke-repairing Work after the 1931 Flood on the Yangtse.*

1. *Flood Condition.*

(a) *Causes of the Flood.*—In the early months of 1931, abnormal rain fell in the lower Yangtse basin, and in July and early August the heavy precipitation reached its climax. The minimum amount of rainfall has been computed at 850,000 cubic metres per second. At that time, the ground was already saturated. Only a portion of that rainfall found its way to the Yangtse on the day of precipitation; had that not happened, all the great cities along the course of the Yangtse would have been wiped out of existence.

(b) *Discharge of the Yangtse during the 1931 Flood.*—The bund of Hankow is fifty feet above normal low-water level, and the discharging capacity of the Yangtse River at that level, at Hankow, is 56,500 cubic metres per second. On August 19th 1931, the high water-level was 53.6 feet, with a capacity of discharge at the rate of 67,000 cubic metres per second, and is the highest on record.

(c) *Seriousness of the Flood.*—According to the statistics collected by the University of Nanking, the following is a rough estimation. In the flooded area, of all farm buildings, 45% were destroyed; of all persons, 40% were forced to migrate for the greater part of the winter, either to high land in the vicinity, or to other hsiens; and, on the average, flooded houses were uninhabitable for fifty-one days. The total loss in the affected area was calculated at 2,000 million dollars. By averaging up, the amount of loss to each individual farmer is about 300 dollars. The loss of life was smaller than might have been expected, owing to the fact that the country is intersected in all directions by canals and creeks, and that in every village there are boats and sampans which were available when the population had to escape.

2. *Survey Work.*

(a) *Aerial Survey.*—The flooded areas were mapped by aerial survey executed by engineers of the Military Central Survey Office and of the Yangtse River Commission placed at the service of the National Flood Relief Commission.

The method in this survey was to use as a basis an existing Chinese military map covering the district under consideration. The speed of the aeroplane in miles per hour being known from the compass, the traverse accomplished by the plane could be drawn on the map to the map's scale, beginning at a prominent landmark (city, pagoda, river confluence, etc.) shown on the military map, and continuing towards a second definite landmark. By observing the edge of the flood-waters, the flooded area was mapped with rapidity and with sufficient accuracy. As much as 8,000 square miles was covered in one day; only nine days were spent by the National Flood Relief Commission's surveyors for the survey of the Yangtse River area and that of the Tungting and Poyang

Lakes, a work which, by old methods, would have required several months and much greater expense.

From these surveys, it was calculated at that time that the total flooded area approximated 88,000 square kilometres (34,000 square miles), with an additional 20,000 square kilometres (7,700 square miles) less seriously flooded.

(b) *Dyke Survey*.—By the end of October, the water had receded somewhat, and the plans were made to survey the extent of the damage. As the dykes were scattered over all the provinces concerned, and as time was limited, speed was essential. It was felt that the best procedure would be to co-operate with the different provincial bureaux and river commissions by dividing among them the districts to be surveyed, as below.

(i) Along the Yangtse River, from Chinkiang to Wusueh, the work was entrusted to the Yangtse River Commission. Three parties were sent to accomplish this purpose. From Wusueh to Shasi, on the Yangtse, and along the Han and Kin Rivers, the work was undertaken by the Hupeh Conservancy Bureau.

(ii) On the Siang and Yuan Rivers and around the Tungting Lake, the Hunan Reconstruction Bureau took the charge.

(iii) On the Kan River, in Kiangsi, the work was undertaken by the Kiangsi Conservancy Bureau.

Surveys were made wherever possible, but in certain places where the ground was still under water, and in others which were infested by bandits, surveying was not feasible.

The National Flood Relief Commission's rules and standard were followed by the surveyors, where surveys were made, and they made out cross sections of the damaged dykes. From these, the account of earthwork required for reconstruction or repair was determined. In places, where the surveys were impossible to make, dykes maps prepared by the Provincial Government were used. These were comparatively not so accurate, and the results obtained were less satisfactory.

3. *Schedule of Work.*

It was decided that, with the resources at its command, the Commission could afford to repair or reconstruct only the main dykes on the principal waterways affected by the flood. Dykes on the tributaries must be left in the hands of the local governments, and those privately owned to the owners themselves.

It was further decided, for the same reason, to confine the work to the following schedule :

(a) Repair of dykes on the south side of the Yangtse, from Chinkiang to Ou Chih Kow, and of the dykes on the north side of the river from Kwa Chow to the Chinkiang dyke in the vicinity of Fu Mao Poo, and also the repair of dykes in lower regions of the Kan River, in Kiangsi;

(b) Repair of the dykes on both sides of the Han River, from Hankow to Chien Kiang;

(c) Repair of the dykes on both sides of the Rivers Siang and Yuan and around the Tungting lake.

4. *General Principles.*

(a) Labour relief work to be confined to earthwork only. The work to consist primarily of the construction of main dykes and the dredging of river beds.

(b) In the construction of dykes, special attention to be given to the regions traversed by important rivers, and especially to those places where dykes have been broken by the flood.

(c) The dykes to be so repaired as either (1) to restore them to their original conditions, or (2) to withstand a flood of the magnitude of 1931.

(d) Old dilapidated dykes and those which interfere with the normal drainage to be repaired, in the first case to an additional height and width, and in the second by elimination of unfavourable alignment, etc.

(e) New dykes may be built in place of old, provided the cost of the new earthwork does not exceed that of repairing the old dyke.

(f) Original channels of the river to be widened or deepened, if necessary, for drainage of flood-water.

5. *General Specification.*

(a) *Dyke Construction.*—The normal height of the dykes, as the result of the survey, was determined 1 metre above the 1931 flood-level, and the top of the dyke varying in width from 3 to 8 metres. As a general rule, the outside (waterside) slope was 1 : 3, the inside slope 1 : 2, with a toe of 1 : 5. These directions determined the cross sections of the dykes. Other details were : Alignment of the dykes should be as straight as possible, and run in the direction of the current; the soil forming the dyke should be coherent and firm; the grass and brushwood at the foot should be cleared; holes should be filled up; to avoid weakening the toe of the dyke, no excavation should be made close to it, and all excavation should be so dug as to avoid formation of continuous ditches; earth should be piled by layers 1 foot deep and each layer should be consolidated to 8 inches by tamping.

(b) *River Channelling.*—The excavation of the river channelling was done from the bank towards the centre of the channel. To deepen the channel of the river, portions of the bed were dammed off and any impounded water pumped out : subsoil water in new channels was treated in the same manner. During excavation, a ditch over 2 feet deep was maintained at the centre of the channel for drainage purposes.

The slope of the bank was 1 : 2 or 1 : 3, depending on the nature of the soil. The earth excavation from the channels was used for building dykes, additional discharge areas for abnormal run-off secured, if necessary, by pushing back the dykes.

6. *District Organisation.*

For purposes of administrative control, the flooded area was divided into eighteen districts.

Each district engineering office had at its head a district engineer, who served concurrently as a general superintendent of the affairs of the division in that district. He had under his orders one or two assistant engineers, two technical assistants and a clerical force of four to six men handling general affairs. The district engineer received orders directly from the chief of the division, or, as the case might be, from the engineer-in-chief, in connection with the engineering and general affairs of the district. He was also empowered to assign special duties to any men in his office, such as labour recruiting, accounting, engineering construction, dealing with documents and correspondence, and the custody of supplies.

The duties of the assistant engineer and the technical assistants were to assist the district engineer in engineering work and its administration. The distribution of the staff and the labourers, the supervision and the direction of the work in the section, the safety of the staff and the labourers, the distribution of grain, cash and tools, and the preparation of reports on the progress of work in the district were some of their main duties.

(a) *Section Organisation.*—Each district was subdivided into eight or ten sections, the number varying according to the magnitude and the nature of the work in the district.

A section engineer, who generally held the rank of assistant engineer, was placed in charge of the section and received orders from the district engineer. He also had a small staff of technical assistants and clerks. In engineering matters, his duties were to make cross-sections of dykes and local surveys, to make field notes and to recommend local changes in the original project, to make estimates of earthwork required, to direct the progress of the work according to the schedule; to control the labourers, to sanction payment for work done, to look after and report on the health and safety of labourers, to co-operate as fully as possible with the landowners and gendarmerie, and to make weekly reports of the progress of the work.

In each section there were officials to look after the recruiting and handling of labourers, another to look after supplies, and one or two who attended to the correspondence of the section and its general affairs.

(b) *Sub-section Organisation.*—Each section was subdivided into ten sub-sections, or “tuans”, with one foreman in charge, and, where circumstances required, an additional man serving as assistant foreman. Each “tuan” had five hundred men working in it, and was divided into twenty gangs, or “pai”, of twenty-five men each. A gang leader was picked from each gang and acted as its representative. He was responsible for the behaviour and work of every man in the gang.

(c) *Enlisting Field Staff.*—The enlistment of the field staff on the scale required by the work was not a simple matter, especially in view of the rapidity with which the districts began to function in succession. The work was partly engineering, partly relief, the one no more important than the other.

(d) *Recruiting Procedure.*—One of the most important and difficult of all offices in the district at the beginning of operations was that of the recruiting officer.

The recruiting officers usually obtained a list of the famine sufferers from public bodies in the various provinces and from relief societies, and used it when going to the villages. The recruited labourers were given a badge number. When twenty-five labourers had been recruited, they were organised into a gang. The most intelligent of the group was made the boss of the gang and given the No. 1 badge. As soon as a full gang was recruited, they were sent to a designated place for work. Families were prevented from following the gang, unless absolutely necessary. The names of the gang bosses were clearly shown in the rolls. All matters of concern to the labourers were explained to them clearly.

The recruiting officers told them that the construction of these dykes was an endeavour on the part of the National Government to obtain permanent security for the people, that their labour would be paid for from relief supplies, that everybody should work hard in support of the good purpose of the Government. When a sufficient number of labourers had thus been recruited in one village, the recruiting officer moved to another village for the same purpose. When the recruited labourers arrived at the sections, the section engineers reorganised them and gave them new gang numbers.

(e) *Methods of paying for Earthwork.*—After the arrival of the refugee labourers on the spot, they were assigned to one borrow pit clearly marked. They began to dig the earth and to pile it on to the dyke. At the end of each week, the technical assistants, together with the foremen, measured these pits in the following way: first, the length and breadth of the pits were measured, which would give the horizontal area; next, the depth at many points was measured (the number of points depending upon the regularity or the irregularity of the bottom of the pit), and the average depth calculated. The two results were multiplied to obtain the volume of the pit, which represented the quantity of earth excavated within the week.

II. *The Kinshui Reclamation Project.*

The Kinshui is a tributary of the Yangtse, entering it on the right bank at Kinkow, a village 30 kilometres above Wuchang, Hupeh. The watershed of the Kinshui embraces an area of 2,500 square kilometres, of which 500 square kilometres are lakes. In the summer-time, the Yangtse rises at Hankow some 50 feet above its winter level, and in doing so compels all of its tributaries in the locality to rise accordingly. In the case of the smaller tributaries like the Kinshui, the Yangtse overcomes their outward flow and backs up into their basins, inundating in the process vast areas of land; in the case of the Kinshui, the area covered between extreme low and extreme high water is approximately a million mou. The object of the Kinshui reclamation project is to prevent this depreciation of the river and to save for agricultural purposes as much as possible of this land ordinarily flooded by the back-waters of the Yangtse. The amount of this land that can thus be saved will vary from year to year, depending on such factors as the stage of the Yangtse and the final level of the impounded water in the lakes, which act as great storage basins. In the case of the years of average and minimum rainfall, much land can be protected for agricultural purposes. In the case of years of heavy rainfall like 1889, lands around the lake up to 24 metres elevation would be submerged. There is no feasible alternative but to allow this submergence in such years. However, in the forty-five years between 1880 and 1924, there were twenty-three years when the rainfall was below the average, and in those years the submergence would be relatively small. During some of the years, the rainfall is so small that it is estimated that the evaporation and transpiration losses would approximately equal the run-off from the watershed.

In the year 1928, following surveys made by it, the Yangtse River Commission made the original designs, and the following year issued a report on the Kinshui project in which it was estimated that the land lying between lowest lake level (20 metres elevation) and the then extreme Yangtse high flood-level (20 metres elevation) was about 900,000 mou. Since the subsequent record flood of 1931, the area lying between contours 28 metres and 30 metres should properly be included in the computation of the area protected. The area of this zone, added to the previously known total, greatly increases the latter, and obviously the value of the project is accordingly greatly enhanced. In passing, it should be here remarked that the Kinshui project is not a new experiment. The Yangtse Valley contains many such projects, some as large as the Kinshui and many of great age, showing the indisputable value of this class of work in this section of China.

The first step in the process of reclamation on the Kinshui is obviously to build a dam to prevent Yangtse water from gaining access to the basin. In 1932, the Kinshui farmers, with the help of a subsidy of wheat and flour donated by the National Flood Relief Commission, built such a dam, and it is reported that, on the area thus reclaimed, they raised several million dollars worth of crops. However, the following winter, in order to let the impounded rain-water out into the Yangtse at low water, these farmers excavated a channel in the earth around their recently built dam, and this channel became enlarged, so that the entire river soon flowed in the new course. To obviate the necessity of constructing a dam in the Kinshui every year and then digging a channel around it, the Government proposed to construct a permanent dam, and then, as the second step in its programme, to construct a permanent sluice, through which to discharge the rain-water that had collected in the lakes behind the dam. The rocky hill, Yukwanshan, adjacent to the Kinshui, near Kinkow, is admirably located as a site for a sluice. It was proposed to pierce this hill at the proper level with three tunnels, each approximately $6\frac{1}{2}$ metres wide and 7 metres high, through which to sluice this impounded rain-water. To control the flow in the tunnel, it was further proposed to install, in appropriate vertical shafts, large "Stoney" sluice-gates $6\frac{1}{2}$ metres wide by 7 metres high. Accordingly, tenders were invited for the construction of the dam and the sluice, and a contract was signed with the successful bidder in April 1933.

Despite the late date, it was felt that, in order to benefit the farmers as soon as possible, an attempt should be made to close the Kinshui and to construct the dam immediately. The river was successfully closed on May 22nd, 1933, but after the closure the river broke all precedents for the month of June and rose to a record height for that month. The closing dam, which could easily have resisted more than ordinary conditions, was unable to withstand the great strain put upon it by the rapidly rising water and broke. It was then determined to do nothing further with the dam until the low-water of the following winter. The river was closed again in March 1934 and the dam containing some 200,000 cubic metres of earth completed on July 4th, 1934. This earth dam is 20 metres in height and has a crest elevation sufficient to resist overtopping by the computed maximum probable flood. In passing, it may well be noted that nearly all the earth for this dam was conveyed in baskets of about 20 kilogrammes capacity. A coolie carried from nearby borrow pits two baskets, a basket on each end of a pole across his shoulder. When the nearby borrow pits were exhausted, the earth was transported on boats from more distant borrow pits, about forty baskets of earth constituting a boat-load.

The tunnels at Yukwanshan are progressing. The character of the rock has not been uniformly as good as was anticipated from boring and from the outcrops. Several slides have delayed progress.

It was anticipated from boring and outcrops that the rock at the site of the shafts in which the "Stoney" gates were to be housed was strong, but this rock, on excavation, proved disappointing and had to be timbered. The pressures finally became so severe that the contractor was forced to abandon timbering and caisson construction was reluctantly resorted to. The caissons are 10.6 metres outside diameter and 20.5 metres deep. When in position, they will be pierced at the proper level to connect with the inlet and outlet tunnels. In the centre of each caisson will be installed the "Stoney" sliding sluice-gate. The three "Stoney" sluice-gates, costing some 64,000 dollars (silver) were manufactured by Messrs. Ransomes and Rapier, of London, and are already at hand awaiting installation. Caisson No. 3 is now sunk to within 1.5 metres of final position.

It is anticipated that no further obstacles will be met in the construction work. It is planned to get the system in operation in time to sluice out the impounded rain-water from the basin next winter.

The estimated cost of the dam and sluice is approximately 750,000 dollars. The work is now about 60% completed.

The third step in the project will be a lock to be constructed in the very near future. The Yangtse River Commission has made preliminary designs for such a lock well located in a limestone rock quarry a few hundred metres distant from the sluice. Quotations have already been received from the aforesaid English firm in London for the lock-gates following the Yangtse River Commission's design, with prices for an alternative design, suggested by that firm, of a gate patterned after the lock-gates at Aswan, Egypt.

III. *The Regulation Project between Kiangyin and Langshan, on the Lower Yangtse.*

In order to regulate the navigation channel for the tidal portions of the lower Yangtse, the conditions must be carefully investigated by collecting all the necessary data with reference to the tidal-wave action and the cross-sections of their river beds. The course of the section from Kiangyin to Langshan is very changeable. The waterway of the channels runs, for the most part, in a zigzag and their feeders are irregularly scattered all along their course. The width of the water surface and the cross-sectional area of the river bed differ in the different localities. The difference in ratio is so great that the flow is impeded. This, in turn, has undoubtedly weakened the natural force of erosion of the river beds themselves. There is no regular rule to control the deep-water line. It is often observed that the banks collapse on one side and are built up on the other. If we wish to improve the lower Yangtse, we must start work in the section between

Kiangyin and Langshan. The map prepared from the actual survey seems to show that all the sand bars in the upper portion of Fohkwangshan, left portion of Cooper Bank and right side of Tungchow, should be blown up successively, leaving the main channel to take care of the increased speed of the river's flow. Any narrow part of the river bed should be widened. The scouring of the river bank clearly occurs at the concave side of Nantung and the Cooper Bank. The danger of destruction of the banks is largely due to the violent dashing force of the water passing through the deepest portions with a steep gradient. To let it fill up by its own natural deposits is the only means to remedy this scouring.

The purpose of constructing the submerged dams is to make the deep channel gradually alluvial, leaving the obstructing bars to be washed away so as to concentrate the flow of water in one central channel. Under present circumstances, the primary object is to build four submerged dams along the bank of Nantung and three in the vicinity of the Cooper Bank. The top of the dam is slightly higher than the river bottom, so there will be no obstruction to navigation, even during the low-water period. Whether this construction work will make the deep channel altogether alluvial or not is still doubtful. It might be found necessary to build more dykes, in addition to those already constructed. After the construction work has been completed, a careful watch for the changes in the river bed will be necessary in order to decide where the additional dykes should be built and which dykes already constructed should be increased to the proposed height. If the work is carried out on the lines suggested above, the cost of the bank protection work, especially at low-water level, will be reduced. After the bank protection work and the submerged dams have been completed, the velocity of the river will be decreased, and the danger of erosion also may be lessened. The constant upkeep of the work must not be lost sight of.

The whole of the construction work can be carried out in several stages, and meanwhile the channels will have a chance of adjusting themselves. The estimated total cost of the four submerged dams which it is proposed to build in Tungchow and the three in Cooper Bank is 930,000 dollars. The plan of the second stage consists of the construction of bank protection works in the Langshan section, 4.7 kilometres in length. The total cost is 2,200,000 dollars, and it is expected to be completed within two years. The construction work for the first and second stages could be planned and prepared within three years, at a total cost of 3,130,000 dollars. From then onwards, it will be necessary to continue the look-out for changes in the river bed as the basis for the third stage in construction work.

8. STATISTICS OF THE GENERATION AND DISTRIBUTION OF ELECTRICAL ENERGY IN THE ELECTRIC UTILITY PLANTS OF THE REPUBLIC OF CHINA FOR THE CALENDAR YEAR 1932.¹

I. *Number of Electric Utilities.*

| | |
|--|-----|
| Total | 463 |
| Distribution according to nature of ownership: | |
| 1. Government ownership | 17 |
| 2. Government and private ownership | 2 |
| 3. Private ownership | 433 |
| 4. Foreign ownership ² | 11 |

¹ These statistics do not include the Three Eastern Provinces and the Province of Jehol now under military occupation of Japan, because of the difficulty of obtaining the operating data. The industrial power-plants are also not included herein.

² All foreign owned utilities are situated in the foreign settlements.

Distribution according to size of plant :

| | |
|---|-----|
| 1. Class I (10,001 kw. and over) | 11 |
| 2. Class II (1,001 to 10,000 kw.) | 30 |
| 3. Class III (101 to 1,000 kw.) | 83 |
| 4. Class IV (100 kw. and under) | 339 |

II. *Installed Capacity.*

Total 478,705 kw.

Distribution according to nature of ownership :

| | Kw. |
|---|---------|
| 1. Government ownership | 62,063 |
| 2. Government and private ownership | 3,020 |
| 3. Private ownership | 171,381 |
| 4. Foreign ownership | 242,241 |

Distribution according to size of plant :

| | |
|---|---------|
| 1. Class I (10,001 kw. and over) | 351,995 |
| 2. Class II (1,001 to 10,000 kw.) | 93,121 |
| 3. Class III (101 to 1,000 kw.) | 21,819 |
| 4. Class IV (100 kw. and under) | 11,810 |

Distribution according to type of prime mover :

| | |
|---|---------|
| 1. Steam engines and steam turbines | 424,013 |
| 2. Internal combustion engines | 52,595 |
| 3. Water-wheels | 2,097 |

III. *Energy Output*

(including power purchased by one utility from another).

Total 1,343,072,210 kwh.

Distribution according to type of prime mover :

| | Kwh. |
|---|---------------|
| 1. Steam engines and steam turbines | 1,246,083,255 |
| 2. Internal combustion engines | 93,066,210 |
| 3. Water-wheels | 3,922,745 |

IV. *Net Energy Output*

(excluding power purchased by one utility from another).

Total 1,298,410,668 kwh.

V. *Population* 458,117,000

VI. *Population served with Electricity* 26,169,000



DENMARK.¹

[*Translation from Danish.*]

HYDRAULIC ENGINEERING.

The enclosed table "Summary of Works costing over 50,000 crowns carried out under the direction of the Hydraulic Engineering Department (Vandbygningsvaesenet) and paid for wholly or in part from State funds during the period 1929-1934" contains such information as it is possible to give in reply to the questions contained in the Circular Letter from the Secretariat of the League of Nations; it should be noted that, as the table itself states, it refers only to works costing 50,000 crowns or more.

With regard to the enquiry in Point V of the Circular Letter from the Secretariat as to the results obtained from the execution of the public works, the Hydraulic Engineering Department can merely state that, as will be seen from the table, more than 8,000,000 crowns have been paid out directly in wages while, in addition, the sum of about 8,000,000 crowns for the purchase of Danish materials and implements includes considerable amounts paid in the form of wages—for instance, for the manufacture of cement, machinery and tools, for the removal of stones, transport, the felling of and other work on trees, etc.

CONSTRUCTION OF HARBOURS ON THE WEST COAST OF JUTLAND.

The following replies refer to the five questions contained in the above-mentioned Circular Letter from the League Secretariat :

I. The only works of which mention may be made are the construction of the port of Hanstholm and the enlargement of the port of Hirtshals.

II. The works are carried out directly for account of the State and under its direct initiative.

III. The expenditure for both installations is covered by the annual budget of the State, and the total costs during the financial years 1929-30 to 1933-34 inclusive amounted to 4,299,927 crowns 93 øre.

IV. The expenditure is divided into two almost equal parts between the two groups : " materials, etc." and " wages, etc.".

V. The construction of the port of Hanstholm is intended to facilitate the development of fishing in the North Sea, and this will have the effect of providing fresh possibilities of employment in various ways. The enlargement of the port of Hirtshals aims at creating a basis for communication between Norway and the Continent. The enlargement will presumably involve other public works, in particular for motor-roads, railways, etc.

¹ Information additional to the reply previously sent by this Government and published in the first volume.

ROADS AND BRIDGES.

The following figures and replies refer to the five questions contained in the Circular Letter from the League Secretariat :

I. *Brief Description of the Most Important Roads and Bridges.*

(a) Undertaken after 1928 and now completed :

Road bridge over the Limfjord;
Road bridge over the Guldborgsund;
Various public roads, public secondary roads and streets in provincial towns.

(b) In course of construction :

Railway and road bridge over the Little Belt;
Railway and road bridge over the Storstrøm;
Road bridge over the Roskilde fjord, at Frederikssund;
Railway and road bridge over the Oddesund;
Various national roads, public secondary roads and streets in provincial towns.

(c) Various bridges, national roads, public secondary roads and streets in provincial towns.

II. *The Authorities executing the Works mentioned under I, and the Method of Execution.*

Limfjord bridge : the bridge concession-holders (Municipal Council of Aalborg);
Guldborgsund bridge : Department of Maribo;
Little Belt bridge : State Railways;
Storstrøm bridge : State Railways;
Frederikssund bridge : Department of Frederiksborg;
Oddesund bridge : State Railways;
National roads : the county authorities;
Public secondary roads : rural communes;
Streets in provincial towns : the municipal councils.

All the works have been carried out either by the workers in the employment of the authorities in question or by contractors under tender.

III. *Methods employed for financing the Works.*

The greater part of the expenditure has been covered by the yield of the motor-vehicle tax imposed by law and the remainder by ordinary county, communal and municipal taxation. In the case of major works, the expenditure has been spread over a number of years, and in such cases the various communes have frequently raised internal loans in order to enable the work to be carried out more rapidly than would have been possible with the various periodical grants made. The interest is, in such cases, included in the cost of construction.

IV. *Allocation of Expenditure between National and Foreign Industry and Labour.*

It is impossible to give the total amounts without a detailed study, since the works in question, as shown by the present memorandum, were not exclusively carried out by means of State funds.

V. *The Government's Opinion on the Effects of the Public Works on Unemployment.*

In the opinion of the General Inspectorate of Roads, the execution of these works has helped to reduce unemployment among ordinary workers but has had less effect on employment in industry.

THE DRAINAGE OF THE TØNDER MARSH.

The extensive marshland situated south of the line Højer-Møgeltønder-Tønder, about one-third of which now belongs to Denmark, is called the Tønder Marsh.

Soon after the reunion of North Schleswig to Denmark in 1920, a "Drainage and Land Improvement Commission of the Department of Tønder" was appointed to study the question of the drainage of the Tønder Marsh, and, on March 29th, 1922, submitted a "Proposal for the organisation of the drainage of the Tønder Marsh and of adjacent areas".

Regulations for executing the work were contained in Law No. 137 of April 18th, 1925, regarding the drainage of the Tønder Marsh, amended by Law No. 327 of December 23rd, 1925.

Under Section 5 of the Law, a Commission was appointed by the Ministry of Agriculture for regulating all matters connected with the work. *Inter alia*, the Commission was to decide which landowners were to bear a share of the cost and in what proportion, and how communications by waterway and road were to be organised; the Commission was also instructed to fix the amount of compensation to be granted for expropriated areas, damages, inconvenience, etc.

The law also provided that the State would defray the cost of the entire work on condition that the owners of the area concerned refunded one-third of this expenditure. The Minister of Finance was authorised to raise the funds required for the advance by issuing and disposing of internal State bonds at interest not to exceed 5% per annum.

The work was started in the spring of 1926. The main lines of the plan were as follows: the water coming from the higher land to the east was to be collected in a canal starting from the frontier waterway at Vindtved and running north in the direction of Jejsing until it meets the Grønaa; this stream was to be dyked and to carry the water to the Vidaa, below the Tønder water-mill; the Vidaa was to be dyked, diverted for a part of its course in the neighbourhood of the frontier and led between two dykes to the Højer lock, the channel outside the lock being already widened and deepened. The eastern canal was to be so arranged that all areas to the east of it were sufficiently drained. All the areas to the east and north of Tønder which could not be drained sufficiently by the Vidaa were to be drained by a subterranean channel to the low-lying ground of the marsh. At Sejersbaekdal, all the water from the higher land was to be collected in a new canal leading to the Vidaa on the western side of the valley. The whole of the marsh proper—that is to say, the lowlying land situated to the east and north of Tønder, comprising in all 9,000 hectares—was to be subsequently drained by pumping the water up into the dyked Vidaa. The pumping was to be carried out by four electric pumping stations so situated as to facilitate pumping as much as possible. The drainage was to be carried to such a depth that all areas could be drained as and when required. At the same time, provision was made for supplying water in all areas for the purpose of irrigation in time of drought and for watering the grazing cattle. This was to be done either by bringing water from the dyked watercourses or by working the pumps "in reverse". The marshy area is situated at such a low level as compared with the sea that drainage by pumping is constantly necessary. In order to prevent the water from the watercourses from flooding the fields at high water, all watercourses inside the sea dyke had to be dyked in.

The work was concluded in the autumn of 1932. The area for the drainage of which these measures have been taken consists of about 11,000 hectares. The dykes along the watercourses have a total length of about 80 kilometres and the drainage canals a length of about 260 kilometres. The total cost, including overhead charges and compensation, amounted to 6,200,000 crowns.

CULTIVATION OF MOORLAND ("VILDMOSE").

Of the total area of 2,800 hectares, only 600 hectares now remain to be sown. This area is fully prepared for sowing, which it is expected will be completed at the beginning of the summer, when the entire work will have been concluded.

During 1934, a form of cultivation—which provisionally extends to about 400 hectares of the cultivated area—was introduced in connection with farms established by the State, comprising about 40 hectares of land, with grazing for forty to fifty milch cows; this system is based on the leasing of the farms at a rent varying according to economic conditions.

In addition, about 1,500 hectares of the area recently placed under cultivation will be occupied by a centre for breeding cattle free from tuberculosis; the centre will be placed under the direction of the Dairy Federation ("Mejeriernes Faellesorganisation"). The plans are, however, still under consideration.

SUMMARY OF WORKS COSTING OVER
UNDER THE DIRECTION OF THE HYDRAULIC ENGINEERING DEPARTMENT ("VANDBYGNINGSVÆSENET")

| KIND | I. Works | | | | | II. Works carried out | | |
|---|------------|-----------------------|-----------------------|-----------|-----------|--------------------------|---------------|---------------------|
| | Dimensions | | Time | | | By | For | Direct or by tender |
| | Length | Area | Begun | Completed | Planned | | | |
| (a) Roads and Bridges : | | | | | | | | |
| Port of Thyboron : Construction of roads and sewers.. | — | — | 1933 | 1934 | — | The State | — | Direct |
| Embankment of Alro-Amstrup road | 1,050 m. | — | 1929 | 1931 | — | Communal Council of Alro | — | Tender |
| (c) Cultivation Works : | | | | | | | | |
| Regulation of the water discharge in the Ringkøbing fjord : Drainage lock, chamber lock, moles, etc. | — | — | 1929 | 1933 | — | The State | — | Tender |
| Regulation of the water discharge in the Nissum fjord : Drainage lock, chamber lock, Moles, etc. | — | — | 1930 | 1933 | — | The State | — | Tender |
| (d) Canals and Inland Waterways : | | | | | | | | |
| Deepening of the Gudenaå..... | 35 km. | — | 1934 | — | — | The State | — | Direct |
| (f) Drinking-water Supply and Sewage Disposal : | | | | | | | | |
| "Hvide Sands" : Water supply plant | 1,400 m. | — | 1934 | 1934 | — | The State | — | Direct |
| Sewers | 1,200 m. | | | | | | | |
| (g) Harbour Works : | | | | | | | | |
| Port of Thyboron : Construction of moles..... | 700 m. | — | 1930 | — | — | The State | — | Direct |
| Construction of piers and wharves | 800 m. | | | | | | | |
| Deepening works | — | 1,920 m ² | 1930 | 1931 | — | The State | — | Tender |
| Port of Esbjerg : Extension of slipway | — | | | | | | | |
| Port of Esbjerg : Extension of fishing harbour | — | | | | | | | |
| Extension of quays by | 1,100 m. | | | | | | | |
| Port of Esbjerg : Extension of ship-building yard ... | — | 11,500 m ² | 1931 | 1932 | — | The State | — | Tender |
| Port of Esbjerg : Lengthening of quays in the "Trafikhavn" | 320 m. | | | | | | | |
| Port of Esbjerg : Lengthening of quays in the eastern outer port | 155 m. | — | 1934 | — | — | The State | — | Tender |
| Port of Esbjerg : Reconstruction of quays in the southern outer port..... | 550 m. | — | — | — | Planned | The State | — | — |
| Stenbjerg : Lengthening of the breakwater..... | 40 m. | — | 1930 | 1931 | — | The State | — | Direct |
| Port of Frederikshavn : Lengthening of quays | 400 m. | — | 1933 | 1934 | — | The State | — | Tender |
| Port of Skagen : Lengthening of quay | 90 m. | — | 1933 | 1934 | — | The State | — | Tender |
| Construction of protective works | 70 m. | 2,300 m ² | 1933 | 1933 | — | The State | — | Tender |
| "Hvide Sands" : Equipment of harbour for small boats | — | | | | | | | |
| Length of quays..... | 400 m. | | | | | | | |
| Port of Krageaaes : Repairs to moles and wharf..... | 180 m. | — | 1929 | 1929 | — | The Port | — | Tender |
| Deepening works, etc. | 140 m. | 3,600 m ² | 1929 | 1930 | — | The Port | — | Tender |
| Mosedø : Equipment of harbour | — | | | | | | | |
| Length of quays | 150 m. | — | 1929 | 1930 | — | The Port | — | Tender |
| Taars : Equipment of harbour | — | 3,500 m ² | 1929 | 1930 | — | The Port | — | Tender |
| Length of quays | 110 m. | | | | | | | |
| Askø : Equipment of harbour | — | 1,500 m ² | 1930 | 1930 | — | The Port | — | Tender |
| Length of quays | 90 m. | | | | | | | |
| Port of Odden : Repairs to mole, etc. | 145 m. | — | 1929 | 1930 | — | The Port | — | Tender |
| Construction and equipment of quays..... | 62 m. | | | | | | | |
| Port of Vestero: Constr. of appliances to prevent silting | 100 m. | | | | | | | |
| Aalbaek : Construction of harbour..... | — | 3,000 m ² | 1930 | 1931 | — | The Port | — | Tender |
| Length of quays | 100 m. | | | | | | | |
| Port of Espergaerde : Reconstruction of quays..... | 100 m. | — | 1930 | 1931 | — | The Port | — | Tender |
| Construction of appliances to prevent silting, etc. | 50 m. | | | | | | | |
| Port of Humlebaek : Repairs to moles..... | 230 m. | | | | | | | |
| Slipways, deepening works, etc. | — | 82,000 m ² | 1930 | 1931 | — | The Port | — | Tender |
| Port of Grenaa : Enlargement of water surface..... | — | | | | | | | |
| Enlargement of land surface | — | | | | | | | |
| Lengthening of mole..... | 800 m. | | | | | | | |
| Lengthening of quays..... | 600 m. | — | 13,500 m ² | 1934 | — | The State | Laeso commune | Tender |
| Port of østerby : Lengthening of mole..... | 75 m. | | | | | | | |
| Lengthening of quays..... | 250 m. | — | | | | | | |
| (m) Other Works : | | | | | | | | |
| Coast protection at Oksby-Blaavaand : | 3,000 m. | — | 1930 | 1932 | — | The State | — | Tender |
| Length of coast protected | | | | | | | | |
| Construction of dykes | | | | | | | | |
| 8 breakwaters with an average length of... | 175 m. | — | 1931 | 1932 | — | The State | — | Direct |
| Coast protection at Miersk : Length of coast protected | 900 m. | | | | | | | |
| 5 breakwaters, each with a length of... | 130 m. | | | | | | | |
| Coast protection at the southern point of Nordretang : | — | — | 1933 | — | — | The State | — | Direct |
| One breakwater | | | | | | | | |
| Coast protection at Traus : Length of coast protected. | 1,900 m. | — | 1933 | — | — | The State | — | Direct |
| 5 breakwaters each with a length of... | 140 m. | | | | | | | |
| Coast protection at Skallingen : Construction of dykes. | 3,000 m. | — | 1933 | — | — | The State | — | Direct |
| 2 breakwaters with an average length of... | 600 m. | | | | | | | |
| Coast protection at Krogdal : Length of coast protected | 960 m. | — | 1934 | — | — | The State | — | Direct |
| 5 breakwaters each with a length of... | 120 m. | | | | | | | |
| Dyke protection works at Lake Fladø..... | 800 m. | — | 1933 | — | — | The State | — | Direct |
| Dyke protection works at Thyboron..... | 1,100 m. | | | | | | | |
| Deepening of the Marstal-Rudkøbing channel | 7,000 m. | | | | | | | |
| Reconstruction of sand pump dredge..... | — | 1933 | 1934 | — | The State | | | |
| Construction of sand pump dredge..... | — | 1933 | 1934 | — | The State | Tender | | |
| Construction of dredge..... | — | — | 1934 | — | — | The State | — | Tender |

50,000 CROWNS CARRIED OUT
AND PAID FOR WHOLLY OR IN PART FROM STATE FUNDS DURING THE PERIOD 1929 TO 1934.

| III. Expenditure defrayed by | | | | | | IV. Amount of Expenditure and Estimates Distributions | | | | | |
|------------------------------|-----------------------------|------------------------------------|----------------------|----------|---------------------|---|-----------|-----------|----------------------|---------|-----------|
| The State | County communc public funds | Funds of ports and private persons | | | | Total expenditure | Materials | | Plant and implements | | Wages |
| | | Amount | Including loans | Interest | Annual amortisation | | Danish | Foreign | Danish | Foreign | |
| Crowns | Crowns | Crowns | Crowns | | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns | |
| 100,000 | — | — | — | — | — | 100,000 | 40,000 | — | 5,000 | 3,000 | 52,000 |
| 99,000 | 99,000 | — | — | — | — | 198,000 | 20,000 | — | 20,000 | 8,000 | 150,000 |
| 4,730,000 | — | — | — | — | — | 4,730,000 | 1,800,000 | 600,000 | 250,000 | 100,000 | 1,980,000 |
| 518,000 | — | 259,000 | 259,000 | — | — | 777,000 | 330,000 | 60,000 | 40,000 | 17,000 | 330,000 |
| 350,000 | — | — | — | — | — | 350,000 | 15,000 | 50,000 | 90,000 | 25,000 | 170,000 |
| 50,000 | — | — | — | — | — | 50,000 | 20,000 | 6,000 | 3,000 | 1,000 | 20,000 |
| 1,592,000 | — | — | — | — | — | 1,592,000 | 500,000 | 300,000 | 70,000 | 42,000 | 680,000 |
| 79,300 | — | — | — | — | — | 79,300 | 30,000 | 10,000 | 3,300 | 2,000 | 34,000 |
| 1,650,000 | — | — | — | — | — | 1,650,000 | 350,000 | 500,000 | 70,000 | 50,000 | 680,000 |
| 330,000 | — | — | — | — | — | 330,000 | 65,000 | 100,000 | 15,000 | 10,000 | 140,000 |
| 1,100,000 | — | — | — | — | — | 1,100,000 | 470,000 | 80,000 | 50,000 | 30,000 | 470,000 |
| 500,000 | — | — | — | — | — | 500,000 | 215,000 | 40,000 | 20,000 | 15,000 | 210,000 |
| 600,000 | — | — | — | — | — | 600,000 | 260,000 | 50,000 | 30,000 | 10,000 | 250,000 |
| 57,500 | 7,500 | 8,000 | — | — | — | 73,000 | 20,000 | 25,000 | 4,000 | 2,000 | 22,000 |
| 535,000 | — | — | — | — | — | 535,000 | 240,000 | 27,000 | 25,000 | 15,000 | 228,000 |
| 132,000 | — | — | — | — | — | 132,000 | 60,000 | 7,000 | 5,000 | 3,000 | 57,000 |
| 225,000 | — | — | — | — | — | 225,000 | 100,000 | 14,000 | 10,000 | 6,000 | 95,000 |
| 15,000 | 15,000 | 37,700 | 10,000 | 5% | 6% annual payments | 67,700 | 17,000 | 17,000 | 3,000 | 2,700 | 28,000 |
| 35,000 | 43,000 | 27,000 | 18,000 | 6% | 1,200 | | | | | | |
| 32,800 | 41,000 | 9,700 | — | — | — | 83,500 | 20,000 | 22,000 | 4,000 | 2,500 | 35,000 |
| 30,000 | 15,000 | 17,200 | — | — | — | 62,200 | 15,000 | 16,000 | 3,200 | 2,000 | 2,600 |
| 65,000 | 43,000 | 22,000 | — | — | — | 130,000 | 45,000 | 20,000 | 7,000 | 2,000 | 56,000 |
| 29,600 | 29,600 | — | 29,600 | — | — | 59,200 | 25,000 | 2,000 | 3,500 | 1,500 | 27,200 |
| 85,000 | 40,000 | 45,000 | 14,500 | — | — | 170,000 | 60,000 | 25,000 | 8,000 | 5,000 | 72,000 |
| 35,000 | 23,300 | 11,700 | — | — | — | 70,000 | 20,000 | 15,000 | 3,000 | 2,000 | 30,000 |
| 37,500 | 26,300 | 13,200 | — | — | — | 77,000 | 32,000 | 5,000 | 5,000 | 1,000 | 34,000 |
| 600,000 | — | 716,000 | 150,000 | 3 3/4% | 5,000 | 1,316,000 | 458,000 | 200,000 | 68,000 | 30,000 | 560,000 |
| | | | 150,000 | 5% | 5,000 | | | | | | |
| | | | 300,000 | 5-4% | 10,000 | | | | | | |
| | | | 100,000 | 5% | 3,333 | | | | | | |
| | | | Commercial guarantee | | | | | | | | |
| 102,000 | 102,000 | — | 102,000 | 4 1/2% | 6% annual payments | 204,000 | 90,000 | 5,000 | 10,000 | 4,000 | 95,000 |
| 250,000 | — | — | — | — | — | 250,000 | 110,000 | 15,000 | 10,000 | 8,000 | 107,000 |
| 300,000 | — | — | — | — | — | 300,000 | 133,000 | 7,000 | 25,000 | 15,000 | 120,000 |
| 150,000 | — | — | — | — | — | 150,000 | 65,000 | 5,000 | 15,000 | 5,000 | 60,000 |
| 700,000 | — | — | — | — | — | 700,000 | 310,000 | 20,000 | 55,000 | 35,000 | 280,000 |
| 550,000 | — | — | — | — | — | 550,000 | 100,000 | 150,000 | 25,000 | 15,000 | 260,000 |
| 380,000 | — | — | — | — | — | 380,000 | 170,000 | 10,000 | 30,000 | 20,000 | 150,000 |
| 200,000 | — | — | — | — | — | 200,000 | 85,000 | 15,000 | 15,000 | 5,000 | 80,000 |
| 390,000 | — | — | — | — | — | 390,000 | 170,000 | 30,000 | 25,000 | 15,000 | 150,000 |
| 148,500 | — | 49,500 | — | — | — | 198,000 | 8,000 | 25,000 | 60,000 | 15,000 | 90,000 |
| 95,000 | — | — | — | — | — | 95,000 | 25,000 | 17,000 | 5,000 | 3,000 | 45,000 |
| 102,000 | — | — | — | — | — | 102,000 | 30,000 | 20,000 | 6,000 | 4,000 | 42,000 |
| 600,000 | — | — | — | — | — | 600,000 | 150,000 | 150,000 | 30,000 | 20,000 | 250,000 |
| 17,580,200 | 484,700 | 1,216,000 | 120,000 | — | — | 19,280,900 | 6,703,000 | 2,685,000 | 1,132,000 | 553,700 | 8,207,200 |

EGYPT.

[*Translation.*]

The Ministry for Foreign Affairs communicates hereafter the information supplied by the competent Departments of the Royal Government.

With regard to the principal methods employed for financing public undertakings, appropriations are included in the budget of the Department concerned and charged to the revenue of the State. The State does not have an ordinary and an extraordinary budget; there is only one budget covering all forms of expenditure—permanent, unforeseen and extraordinary. With regard to undertakings carried out by local bodies (municipalities, provincial and local councils), water, lighting and sewerage undertakings are financed by State guaranteed loans from the local banks. Loans for water and lighting works are repayable in thirty years, and loans for sewerage works in forty-one years. The necessary funds for other works are charged to the budgets of the bodies concerned.

RAILWAYS.

The Egyptian Government devotes particular attention to the railways, with a view to the economic development of the country through improved communications, providing rapid transport from place to place, and linking up the towns. This is proved by the large appropriations made in the budget of the State Railways Department in past years.

The works executed and the expenditure thereon are as follows :

| | £E | £E |
|--|--------------------|-----------|
| <i>1. Works executed during the past five years :</i> | | |
| (a) Laying of new lines and improvement of existing lines..... | 804,000 | |
| (b) Construction of bridges and subways | 370,000 | |
| (c) Improvements to various stations | 134,500 | |
| (d) Miscellaneous | 220,000 | |
| | 1,528,500 | 1,528,500 |
| <i>2. Work in course of execution :</i> | | |
| Improvements to various stations | 270,000 | |
| Construction of the Abu Zaabal workshops | 200,000 | |
| | 470,000 | 470,000 |
| <i>3. Work begun but suspended :</i> | | |
| Laying of new lines and improvements to various lines | 1,045,000 | 1,045,000 |
| <i>4. Works in contemplation :</i> | | |
| Laying of new lines | 1,045,000 | |
| Improvements to various stations | 240,000 | |
| | 1,285,000 | 1,285,000 |
| Total... | £E4,328,500 | |

Important Works carried out since 1929 or started since then and still in Progress.

A = completed.
 B = work in hand.
 C = started but suspended.
 D = projected only.

| Works | Approximate cost £E | Remarks |
|--|------------------------|---|
| Dessuk Nile bridge | A 190,000 | |
| Abu Kebir Station remodelling | A 33,500 | |
| Tanta locomotive shed and coal-yard | A 73,000 | |
| Benha-Menuf line | A 180,000 | |
| Mahmoudia combined rail and road bridge | A 50,000 | |
| Zifta-Mit Bera line | A 115,000 | |
| Cairo terminal improvements, extension and reconstruction .. | C 150,000 | Foundation of west wing done but work is suspended till now. |
| Doubling and regrading of marshalling yard at Gabbari... | A 31,000 | |
| Dessuk Station remodelling | A 31,000 | |
| Sharabia subway | A 30,000 | |
| Mansura station remodelling | A 30,000 | |
| Faqus-San el Hagar line (see note) | 50,000 | 36 kilometres, of which 10 kilometres to Samana is open to traffic. Extension deferred. |
| Tanta-Santa line | A 68,000 | |
| Minia road bridge over railway lines and Ibrahimia canal. | A 60,000 | |
| New coal-hoists at Gabbari | A 70,000 | |
| Meh. Roh-Talkha doubling | A 200,000 | |
| Tanta Station remodelling and improvements | B 210,000 | |
| Cairo-Suez line | C 200,000 | |
| Removal of Abu Zaabal workshops | B 200,000 | |
| Widening Luxor-Assuan line | A 210,000 | |
| Seigar subway at Tanta | A 40,000 | |
| Kena-Kift-Qosseir (new line) | C 200,000 | |
| Extension of power-house at Gabbari | A 77,000 | |
| Zagazig station modification | B 60,000 | |

(c) *Works of which Projects are prepared but not started yet.*

| Works | Approximate cost £E | Remarks |
|--|------------------------|--|
| Port Fouad-Romani line | D 245,000 | Total length is about 43 kilometres. It runs for about 36 kilometres parallel to the coast of the Mediterranean. |
| Extension of Mariut line from Foka to Mersa Matruh | C 345,000 | 80 kilometres. |
| Edfina-Sidi Ghazi line | D 250,000 | 54 kilometres. |
| Samana-San el Hagar-Faraskour line | D 350,000 | 80 kilometres. |
| Farz-Galiub relief line | D 100,000 | 20 kilometres. |
| Sidi Gaber station remodelling | D 50,000 | |
| Doubling of Abu Qir line | D 100,000 | |
| Mallawi station remodelling | A 40,000 | |
| Assiut station remodelling | D 190,000 | |

PORTS AND LIGHTHOUSES.

The expenditure incurred on ports and lighthouses during the past five years amounted to £E544,873, spread out as follows :

| Year | Amount £E |
|-----------|--------------|
| 1929..... | 295,013 |
| 1930..... | 100,414 |
| 1931..... | 62,918 |
| 1932..... | 43,280 |

Among the more important works executed during this period, mention should be made of the improvements to the port of Suez, which cost £E100,172. This sum is included in the above-mentioned figures.

The following works were also executed :

| | £E |
|--|--------|
| Construction and equipment of two depots at Pier E in the port of Alexandria | 48,699 |
| Construction of quays for berthing pilgrim boats at the port of El Tor | 32,841 |
| Construction of a quay 170 metres long in the port of Suez..... | 31,379 |
| Reconstruction of the Abul Kisane lighthouse in the Red Sea..... | 42,448 |
| Enlargement of the Montazah harbour at Alexandria | 22,485 |
| Purchase of new lighting equipment for the Red Sea ports..... | 13,038 |

ROADS AND BRIDGES.

1. Roads.

The Egyptian Government was obliged to improve the road system in the interests of the economic development of the country. The expenditure incurred in this connection during the past five years amounted to £E232,715, spread out as follows :

| Year | Amount £E |
|-----------|--------------|
| 1929..... | 113,916 |
| 1930..... | 75,085 |
| 1931..... | 24,226 |
| 1932..... | 8,447 |
| 1933..... | 11,041 |

Total... £E232,715

Of the more important roads on which these sums were spent, mention may be made of :

| | £E |
|--|---------|
| Widening and completion of certain parts of the road from Cairo to Alexandria | 102,865 |
| Widening of the road from Cairo to Luxor as far as Assiut..... | 39,195 |
| Improvement of the road from Giza to the Fayum across the desert, and of the road from the Pyramids Road to Zawiet Abu Mesallem..... | 23,062 |

The length of agricultural and macadamised roads constructed during the past five years was as follows :

| Year | Agricultural roads Km. | Macadamised roads Km. | Total Km. |
|-----------|---------------------------|--------------------------|--------------|
| 1929..... | 234 | 22 | 256 |
| 1930..... | 195 | 51 | 246 |
| 1931..... | 45 | 10 | 55 |
| 1932..... | 133 | 4 | 137 |
| 1933..... | 365 | — | 365 |

The length of existing roads of these two categories was as follows :

| Year | Agricultural roads Km. | Macadamised roads Km. | Total Km. |
|-----------|---------------------------|--------------------------|--------------|
| 1929..... | 6,050 | 331 | 6,381 |
| 1930..... | 6,245 | 382 | 6,628 |
| 1931..... | 6,291 | 393 | 6,684 |
| 1932..... | 6,424 | 397 | 6,822 |
| 1933..... | 6,790 | 397 | 7,188 |

2. Bridges.

The expenditure incurred by the Government and municipalities on bridges in the provinces during the past five years amounted to £E779,341, as follows :

| | £E |
|--|-----------|
| Demolition of the former Kasr El Nil bridge at Cairo and its reconstruction (Khedive Ismail bridge)..... | 318,223 |
| Construction of the Benha bridge over the Nile..... | 199,478 |
| Construction of various bridges..... | 75,042 |
| Municipal bridges..... | 25,439 |
| Miscellaneous bridges and works..... | 161,159 |
| Total... | £E779,341 |

CIVIL AVIATION.

Although aviation has only recently been introduced into Egypt, the expenditure on new works necessitated by aviation during the past five years amounted to £E103,506, including expenditure on the construction of a wireless station at the Almaza aerodrome, Cairo, and the inspection of the Giza wireless broadcasting station, which amounted to £E3,503.

The amount of £E103,506 was spread out as follows :

| Year | Amount £E |
|-----------|--------------|
| 1929..... | 46,439 |
| 1930..... | 28,196 |
| 1931..... | 3,458 |
| 1932..... | 7,431 |
| 1933..... | 17,982 |
| Total... | £E103,506 |

PORTS AND LIGHTHOUSES.

STATEMENT SHOWING EXPENDITURE ON NEW WORKS DURING THE YEARS 1929, 1930, 1931, 1932 AND 1933.

| Nature of work | 1929 | 1930 | 1931 | 1932 | 1933 | Total |
|--|---------|---------|--------|--------|--------|---------|
| | £E | £E | £E | £E | £E | £E |
| Enlargement of the port of Montazah | 9,880 | 3,518 | 7,363 | 1,724 | — | 22,485 |
| Purchase of new lighting equipment for the Red Sea ports, and construction of a signalling station at Port Tewfik | 11,607 | 432 | 999 | — | — | 13,038 |
| Replacing and repairing dredgers, dredging operations, and purchase of equipment | 14,041 | 14,015 | 8,764 | 5,672 | 5,076 | 47,568 |
| Purchase of a floating fire-engine for the port of Suez | 7,475 | — | — | — | — | 7,475 |
| Extraordinary expenditure on the upkeep of floating and fixed equipment and purchase of floating equipment | 21,989 | 7,245 | 6,204 | 2,924 | 2,400 | 40,762 |
| Study of harbour schemes | 7,165 | 8,785 | — | — | — | 15,950 |
| Reconstruction of Abul Kisane lighthouse | 23,749 | 16,424 | 2,275 | — | — | 42,448 |
| Construction and renewal of footbridges at Alexandria | 213 | — | — | — | — | 213 |
| Purchase of new implements for, and building repairs to, the workshops | 2,553 | — | 2,252 | 3,574 | 4,316 | 12,695 |
| Paving of the port of Alexandria | 1,966 | 13,681 | 5,639 | — | — | 21,286 |
| Construction and equipment of two stores at Pier E | 40,981 | 134 | 7,461 | 120 | — | 48,696 |
| Construction of oil-tanks and of two wharves for nitrates and coal at the port of Alexandria ... | 7,814 | — | — | — | — | 7,814 |
| New lifeboat for the port of Alexandria | 18,196 | — | — | — | — | 18,196 |
| Completion and strengthening of the foundations of the Rosetta lighthouse jetty | 324 | 7,280 | — | 1,202 | — | 8,806 |
| Construction of a quay 170 metres long in the port of Suez | 25,350 | 2,216 | 1,333 | 2,480 | — | 31,379 |
| Enlargement of the port of Suez | 100,172 | — | — | — | — | 100,172 |
| Construction of quays for berthing pilgrim boats at El Tor | 12 | 16,161 | 14,551 | 1,917 | 200 | 32,841 |
| Construction of dwellings at Matruh, of public conveniences on the timber-wharf at Alexandria, and of a concrete wall for the quarantine station at Suez | 1,526 | — | — | — | — | 1,526 |
| Construction and repair of floating landing-stages at Alexandria and Suez | — | 9,445 | 5,705 | 3,760 | 3,388 | 22,298 |
| Construction of new wharf-protection works | — | 967 | — | — | — | 967 |
| Construction of a landing-stage at Ras el Tin ... | — | 1,111 | — | 9,549 | 15,411 | 26,071 |
| Construction of a quay and dock for sailing-ships at Port Said, and construction of a wall round the Mallaha Customs zone at Alexandria | — | — | 372 | — | 918 | 1,290 |
| Cost of lighting the port of Alexandria and cost of administration of the workshops and graving dock | — | — | — | 1,849 | 6,799 | 8,648 |
| Construction of a wall round the Customs zone at Port Tewfik | — | — | — | 872 | 1,554 | 2,426 |
| Extension of the main cable from the power-station to the oil-reservoir at Suez | — | — | — | — | 926 | 926 |
| Construction of a garage for the mechanical transport service at Alexandria | — | — | — | — | 2,250 | 2,250 |
| Improvement of the road to the store of inflammables at the port of Suez | — | — | — | 337 | — | 337 |
| Total ... | 295,013 | 100,414 | 62,918 | 43,280 | 43,248 | 544,873 |

ROADS AND BRIDGES.

STATEMENT SHOWING EXPENDITURE ON NEW WORKS DURING THE YEARS 1929, 1930, 1931, 1932 AND 1933.

| Nature of works | 1929 | 1930 | 1931 | 1932 | 1933 | Total |
|--|----------------|---------------|----------------|----------------|---------------|----------------|
| <i>I. Roads.</i> | £E | £E | £E | £E | £E | £E |
| Widening and improvement of the Abukir Road from Montaza Palace to the beginning of Rosetta Road..... | 9,959 | — | — | — | — | 9,959 |
| Repairing and widening of road No. 26 from Benha to Mit Ghamr | 7,167 | — | — | — | — | 7,167 |
| Joining-up of the new Sandub bridge at Mansura | — | — | 2,193 | 254 | — | 2,447 |
| Completion of the road-widening operations between Giza and Bedrechein and junction with Sakkara | 13,000 | 8,996 | — | — | — | 21,996 |
| Improvement of the Pyramids Road from Giza to the Fayum across the desert, and of the road running from the Pyramids Road to Zawiet Abu Mesallem | 12,069 | 10,993 | — | — | — | 23,062 |
| Construction of the road between Abu Zaabal Station and the Leper Hospital | — | 4,962 | 1,986 | — | — | 6,948 |
| Completion and widening of certain parts of the road from Cairo to Alexandria | 33,020 | 43,797 | 18,893 | 3,339 | 3,816 | 102,865 |
| Construction of the road from Port Said to Damietta | — | — | 1,143 | 411 | 1,701 | 3,266 |
| Widening of the road from Mit Ghamr to Mansura, Damietta and Ras el Bar | — | — | — | 4,443 | 4,631 | 9,074 |
| Widening of the road from Cairo to Luxor as far as Assiut | 31,965 | 6,337 | — | — | 893 | 39,195 |
| Construction, widening and macadamising of various roads | 6,736 | — | — | — | — | 6,736 |
| Total ... | 113,916 | 75,085 | 24,226 | 8,447 | 11,041 | 232,715 |
| <i>II. Bridges.</i> | | | | | | |
| Municipal bridges | 1,905 | 10,831 | 4,844 | 3,973 | 3,886 | 25,439 |
| Reconstruction of various bridges | 27,482 | 18,256 | 9,661 | 9,826 | 9,817 | 75,043 |
| Reconstruction of the Kasr el Nil bridge (Khedive Ismail bridge) | 457 | 1,205 | 95,574 | 183,127 | 37,860 | 318,223 |
| Reconstruction of the Benha bridge over the Nile. | 459 | 777 | 91,003 | 99,537 | 7,702 | 199,478 |
| Footways on the Edfina bridge..... | — | — | 25,000 | 3,000 | 316 | 28,316 |
| Construction of various bridges..... | 53,428 | 62,289 | 9,602 | — | 7,524 | 132,843 |
| Total ... | 83,731 | 93,358 | 235,684 | 299,463 | 67,105 | 779,341 |

CIVIL, AVIATION.

STATEMENT SHOWING EXPENDITURE ON NEW WORKS DURING THE YEARS 1929, 1930, 1931, 1932 AND 1933.

| Nature of works | 1929 | 1930 | 1931 | 1932 | 1933 | Total |
|---|--------|--------|-------|-------|--------|---------|
| | £E | £E | £E | £E | £E | £E |
| Cost of land expropriated for the Dekhela aerodrome at Alexandria | 24,000 | 10,000 | — | — | — | 34,000 |
| Raising of the level of the Dekhela aerodrome by banking up | 14,338 | 10,897 | 3,458 | — | — | 28,693 |
| Construction of a wall round the Almaza aerodrome, improvements to the land belonging to the aerodrome, and flood-protection works at the aerodrome | 8,101 | 7,299 | — | 202 | — | 15,602 |
| Technical and meteorological equipment and construction of hangars | — | — | — | 150 | 17,982 | 18,132 |
| Construction of offices at the Almaza aerodrome... | — | — | — | 2,831 | — | 2,831 |
| Construction of a wireless station at the Almaza aerodrome and inspection of the Giza station ... | — | — | — | 745 | — | 745 |
| Lighting equipment round the Almaza aerodrome . | — | — | — | 3,503 | — | 3,503 |
| Total ... | 46,493 | 28,196 | 3,458 | 7,431 | 17,982 | 103,506 |

HYDRAULIC WORKS.

[Translation.]

I.

(a) Works undertaken since 1929 and already completed.

(1) *Raising of the Height of the Assuan Reservoir for the Second Time.*—At the beginning of 1929, the Ministry of Public Works began for the second time to raise the height of the Assuan reservoir by 9 metres, in order that about twice as much water might be stored. This work was completed at the end of 1933. The cost was as follows :

| | |
|--------------------|-------------|
| | £E |
| Construction | 2,300,000 |
| Ironwork | 350,000 |
| | £E2,650,000 |

The Assuan reservoir is situated at the first cataract of the Nile. It is used by the Ministry of Public Works to store part of the Nile waters when they are high and are in excess of requirements for cultivated land; it subsequently discharges the water thus stored into the Nile to raise the level of the river when the rate of flow is at its lowest.

The reservoir was originally completed in 1902 to hold a thousand million cubic metres of water. Its capacity was first increased to 2,500 million cubic metres. The work was completed in 1912. In 1933, the height of the reservoir was raised for the second time and it was also strengthened, its present capacity being 5,400 million cubic metres.

(2) *Drainage Scheme for the North of the Delta.*—In 1929, the Ministry of Public Works began work on a scheme for reclaiming, by machinery, about 1,000,000 feddans of land in the northern part of the delta, and constructed 18 subsidiary pumping stations

to drain these areas. The stations obtained the necessary power from three main stations. The work was completed in 1933. It took three years, and cost about £E300,000.

The value of this scheme was that it not only reduced the pressure of water on the low-lying land, but contributed towards improving and rendering cultivable about 400,000 feddans of uncultivated land.

(3) *El Ahaywa Tunnel*.—This tunnel was pierced to make a channel for the waters of one of the chief canals of Upper Egypt, which enters the Nile above the Nag'Hamadi barrage. The barrage was completed in 1930, and cost £E2,000,000. The tunnel is 1 kilometre long and 10 metres wide, and was completed in 1932 at a cost of £E200,000.

(b) *Schemes in course of Execution.*

(1) *Jebel Awlia Reservoir*.—The Jebel Awlia reservoir, on the White Nile, 50 kilometres south of Khartoum, is now under construction. The work was begun at the end of 1933, and will probably be completed by the beginning of 1937. The reservoir will supply Egypt, at low water-level, with about 2,000 million cubic metres of water.

The cost of constructing the Jebel Awlia reservoir is estimated at about £E2,100,000.

(2) In addition to constructing the Jebel Awlia reservoir, the Ministry of Public Works is carrying out various irrigation and drainage improvement works on land now under cultivation, and is developing agriculture by improving uncultivated land and turning various low-lying basins in Upper Egypt into perennially irrigated land suitable for cultivation throughout the year.

On this class of work, the Government spends about £E1,250,000 per annum, and will continue to do so for at least fifteen years.

(c) *Works which are about to be carried out or for which Schemes are in Preparation.*

The irrigation and drainage works, planned to cover about twenty years, are as follows :

| | Cost of execution £E |
|--|-----------------------------|
| 1. Strengthening of the Assiut barrage on the Nile. The work will be begun in November 1934 | 1,100,000 |
| 2. Construction of the Mohamed Aly barrages on the two branches of the Nile to the north of Cairo, to replace the old Delta barrages completed in 1861. The construction of the new barrages will be begun in 1935 | 2,400,000 |
| 3. Construction of the Edfina barrage on the western branch of the Nile, near the mouth.. | 700,000 |
| 4. Construction of a new electricity generating-station and subsidiary pumping-stations. | 900,000 |
| 5. Irrigation and drainage improvements in the Delta | 12,500,000 |
| 6. Reclamation of uncultivated land in the Delta | 3,200,000 |
| 7. Drainage improvements in Middle Egypt. | 2,300,000 |
| 8. Conversion of the basins of Upper Egypt to a system of perennial irrigation. | 5,400,000 |
| 9. Improvement of shipping in Egypt. | 700,000 |
| Total. . . | £E 29,200,000 or 30,000,000 |

II. *Administrative Methods employed in carrying out Public Works.*

The principal administrative method, as regards both works already executed and works in course of preparation, is that they are carried out on behalf of the central authorities of the State. Each undertaking is offered for either local or international tender. The tenders are examined and the work is entrusted to the most competent contractor.

III. *Methods for financing Public Works.*

The expenditure on these works is met from the ordinary State budget. In time of prosperity, extraordinary appropriations are made from the State reserve funds.

IV.

Of the expenditure, 75% is for the purchase of the necessary material and 25% for labour.

V.

The execution of irrigation and drainage schemes has raised the cost of labour, which had fallen considerably. Had these schemes not been carried out, a large number of local industries would have come to a standstill.

TELEGRAPHS AND TELEPHONES.

I.

Trunk cable Cairo-Alexandria.

Cairo Automatic Telephone Exchange.

System of radiotelegraph stations for internal communications and for communication with aircraft.

Direct radiotelephone service from Egypt to England, Germany and France.

Improvements to main trunk telephone service by installation of repeater stations.

Inauguration of a State broadcasting station.

Automatic telephone service for Alexandria and improvements to other exchanges.

Additional broadcasting stations.

II.

All the above works have been carried out by the Government partly directly and partly by adjudication, with the exception of the radiotelephone service, which is worked by a private company under agreement.

III.

The expenditure has been covered by the national budget.

IV.

The total expenditure of those of the above works which have been carried out directly by the Government is approximately £E900,000. This does not include the salaries and wages of permanently employed Government staff.

ETHIOPIA.

I. DESCRIPTION OF THE MAIN WORKS BY CATEGORIES.

A.—Main Public Works put in Hand in the Empire of Ethiopia at the Beginning of 1929 and which have now been completed.

(a) National Roads.

1. *The Lekemeti Road.*—By the beginning of 1930, the partial survey of the road had been completed. The final survey and the construction of the road were undertaken simultaneously to avoid the necessity for suspending the work during the season of heavy rains known as the “Kremt”.

This road is an extension of the Addis-Ababa - Addis-Alem road.

The carriage-road from Addis-Ababa to Addis-Alem (60 kilometres in length) was built during the reign of the Emperor Menelik II. Very little required to be done in the way of repairs to this portion of the Lekemeti road.

The Addis-Ababa - Addis-Alem road is paved along its whole length.

The Lekemeti road forms a continuation of the Addis-Alem road, running into the Province of Lekemeti. It is a particularly important road, as it is the shortest route between the capital and the western provinces of the Empire; it passes through the provinces of Toké, Galla, Tibé, Cheboka, Sibú and, finally, Lekemeti. These provinces are among the most important in the Empire.

The present road to Lekemeti replaces the old caravan-track which was previously used and which was absolutely impracticable for all wheeled traffic.

The construction of the Lekemeti road, which does not follow precisely the same route as the caravan track, presented very great difficulties; in many places, the road hugs the mountain-side, and it was therefore necessary to lay gutter-stones as a protection against the heavy rains which occur during the wet season.

During the surveying operations, scientific researches were carried out in the various regions through which the road passes, with the object of ascertaining whether these provinces were suitable for the establishment of cotton, coffee, etc., plantations.

Technical conditions of construction :

- (1) Gradient : not more than 6%;
- (2) Curves : Not less than 25 metres;
- (3) Total length of the road : 390 kilometres;
- (4) Width of the road : 8 metres;
- (5) Width of the roadway : 4 metres.

2. *The Jima Road.*—The construction of the Jima road was put in hand at the beginning of 1931, under the direction of the engineers of the Ministry of Public Works. Two different surveys were made, and it was decided to adopt the second route proposed, as this passed through several fertile regions.

The road follows the general direction Addis-Ababa - Gambella, *via* Jima, Giré.

Technical conditions of construction :

- (1) Gradient : not more than 6%;
- (2) Curves : not less than 25 metres;
- (3) Total length of road : 300 kilometres;
- (4) Total width of road : 8 metres.

Serious obstacles were encountered at various places—for instance, in the descent to and ascent from the Gibié (Omo) valley.

The most difficult problem was to protect the road from the “Kremt” waters, which rush down the mountains in such torrents as to make it impossible for the heads of the drain-pipes to carry them off so as to keep the roadway sufficiently dry. It was therefore necessary to make larger gutters.

All the engineering works on the road, in particular, the culverts and small bridges, are of stone.

The large bridges are of reinforced concrete; the Awache bridge is made entirely of iron.

Digging operations were carried out with the help of three road-machines.

As the surface of the road is particularly hard, vehicles can travel over it, weather permitting, with perfect safety and at a high speed.

For the convenience of travellers, a halting-place, with a hotel provided with all the necessary equipment, has been constructed at Wellisso (115 kilometres from Addis-Ababa).

Lastly, telephonic communications are ensured all along the road by the services of the Ministry of Posts, Telegraphs and Telephones.

3. *The Dessie Road.*—Surveys for the Dessie road were made during 1932, and digging operations were begun in the following year. After passing through the “High Plateau of Choa” country, the road reaches the town of Debre-Marcos at a distance of 140 kilometres from the capital.

After crossing the Danakli plain, the road rises at a gentle gradient and then runs along the hillside or along the top of the watershed. It passes through various fertile districts before it reaches the town of Dessie. This road was opened to wheeled traffic at the beginning of 1934.

Technical conditions of construction :

- (1) Gradient : not more than 6 to 10 %;
- (2) Total length of road : 425 kilometres;
- (3) Total width : 8 metres;
- (4) Curves : not less than 20 metres.

4. *The Jihur Road.*—This road is 200 kilometres long and 8 metres wide.

(b) *Departmental Roads.*

1. Roads built in the Harrar district :

- (a) Dirre-Daua - Harrar road : 58 kilometres.
- (b) Harrar - Jijiga road : 200 kilometres.
- (c) Harrar - Dadar road : 110 kilometres.
- (d) Harrar - Midagallola road : 70 kilometres.
- (e) Adale - Garamuleta road : 60 kilometres.
- (f) Garamuleta - Burka road : 11 kilometres.
- (g) Harrar - Kembolchta road : 30 kilometres.

2. Roads built in the Chterchter district :

- (a) Asbe-Tefferi - Hirna road : 40 kilometres.
- (b) Asbe-Tefferi - Minet road : 110 kilometres.
- (c) Asbe-Lebeli - Biket road : 70 kilometres.
- (d) Asbe-Modjo - Adama road : 50 kilometres.

3. Roads built in the Jijiga district :

- (a) Jijiga - Ai-Cha road : 190 kilometres.
- (b) Jijiga - Tefferi-Ber road : 70 kilometres.

- (c) Jijiga - Herguessa road : 180 kilometres.
- (d) Jijiga - Deguehabur road : 180 kilometres.
- (e) Deguehabur - Tamene road : 80 kilometres.
- (f) Deguehabur - Bulale road : 50 kilometres.
- (g) Deguehabur - Urgo road : 230 kilometres.
- (h) Urgo - Fassika road : 200 kilometres.
- (i) Urgo - Tenane road : 100 kilometres.
- (j) Tenane - Dijino-Ber road : 100 kilometres.
- (k) Dijino-Ber - Admula-Kolafo road.
- (l) Adamola - Fassika road : 50 kilometres.
- (m) Fassika - Busle road : 20 kilometres.

All these roads are simply tracks, but they will be paved in the near future.

The Government has arranged for the distribution of a certain type of cart in all districts served by the new roads.

(c) *Airports.*

Since the beginning of 1929, airports have been built in several places and are now in use.

In particular, a large airport has been built at Akaki, not far from the capital.

The site, which has been well chosen, is in a large plain 2 kilometres long and 1.5 kilometres wide.

Taking-off and landing operations can thus be effected with the utmost facility.

Most of the airports consist of three hangars, two workshops and a building for the administrative services.

A large hangar has been built entirely of local timber; it has a span of 40 metres, a depth of 30 metres and a height of 12 metres.

Another hangar, made entirely of metal, is 20 metres long by 12 metres wide.

A third and last hangar, the framework of which rests on masonry pillars, is quite large enough to take two aeroplanes.

A principal workshop and an up-to-date mechanical workshop are attached to the aerodrome for the repair and manufacture of aeroplane spare parts.

During the "Kremt"—*i.e.*, the season of heavy rains—aircraft will take off from and land on a large platform.

A stone-paved road connects the aerodrome with the capital.

This aerodrome has been built entirely by Ethiopian technicians under the direction of the engineers of the Ministry of Public Works.

(d) *Administrative Offices.*

Certain premises used by the administrative services of the Ministry of Public Works and the Ministry for Foreign Affairs have been demolished and entirely rebuilt on a new plan.

(e) *Other Works* (works included in a general plan and carried out since 1929).

1. *Prison.*—During 1932, a large up-to-date prison was built at Akakia, at a distance of 7 kilometres from the capital, on the same lines as the modern European and American prisons.

The cells are arranged in accordance with a system which makes it possible to house an odd number of prisoners. This prison can accommodate some 400 prisoners.

The main building consists of a ground floor and a first floor.

The rooms of the Governor of the prison and the offices of the administration are on the first floor of the main building.

An infirmary, with a room for the medical examination of the prisoners, has been installed in the prison.

2. *Wireless Station.*—During 1933, a large wireless station was built at Akaki, on the outskirts of the capital.

This station, which was built by a foreign company, is equipped with the most up-to-date receiving and transmitting apparatus.

As the construction of this station was expected to take a fairly long time, it was necessary to instal a smaller one, which is at present being used for broadcasting in the capital itself.

Another secondary station has been built in the town of Godjam for internal communications.

Other wireless stations similar to that at Godjam will be established shortly in certain inland towns.

The construction of the Akaki station has been fully completed, but it is not yet working.

3. *Barracks.*—Two large barracks have now been completed, one in the capital and the other at Genette.

The Addis-Ababa barracks, which has been planned on rational lines, consists of twelve large buildings situated between the two Guebis (Imperial palaces).

The Genette barracks consists of nine large buildings, three of which have a first floor, where the dormitories are situated. One building contains the refectory and another the administrative services. Two buildings are used as stables, while one has been fitted up as an infirmary.

4. *Hospitals.*—Various hospitals have been built in certain provincial towns, and two large ones in the capital itself, since 1929.

(a) The Bete-Saida hospital consists of eight detached buildings, it is specially intended for surgical cases. However, it also includes other services, such as radiography, etc.

(b) The Felloha hospital, adjoining the thermal station of Felloha, provides accommodation for maternity cases.

5. *Cathedral.*—The Sellssie cathedral has been built in the capital of the Empire on the same plan as western cathedrals.

6. *Parliament.*—The new Parliament House has been built (1933-34) at the side of the large Guebi (Imperial Palace). This building, which is of reinforced concrete with brick filling, comprises the Senate and the Chamber of Deputies. The main building, which has been planned on the most up-to-date lines, consists of a ground floor and a first floor.

7. *Monuments.*—The following monuments were erected in the capital of the Empire at the time of the coronation of His Majesty Haile-Selassie by the engineers of the Public Works Department :

(a) In St. George's Square, opposite St. George's Cathedral, a large gilt-bronze statue representing the Emperor Menelik II on horseback. This monument is surrounded by a park.

(b) A monument symbolic of the Holy Trinity was erected in the centre of the town on the occasion of the coronation of His Majesty Haile-Selassie I in 1930.

B.—*Principal Works in course of Execution.*

1. *National Roads.*

(a) The main road Addis-Ababa - Ballé;

(b) The main road Addis-Ababa - Godjam.

2. Various departmental roads are also under construction and will shortly be completed.

3. A small palace measuring 60 metres by 35 metres is now being built at Addis-Ababa in the grounds of the little Guebi. The building consists of a ground floor and two other floors, comprising a hundred rooms.

The internal decorations and part of the furniture have been ordered in Europe.

The palace, beside which a chapel will be built, is surrounded by a park of 25 hectares.

The construction of an Imperial palace at Harrar, which was put in hand at the beginning of 1934, will shortly be completed.

4. *Church.*—A church dedicated to St. Mary is now being built in the capital of the Empire.

C.—Works the Execution of which is at present in Contemplation.

The engineers of the Ministry of Public Works are studying plans for the following public works :

1. Various national and departmental roads such as :

The Addis-Ababa - Alague road;

The Dessie - Aheia-Fège road;

The Dessie - Baté road;

The Dessie - Gonder road;

The Beguemder - Godjam road;

The Djima - Maji road.

2. Various surveys have been made in the vast arid regions of Wamaet of Guibie, with a view to ascertaining whether it is possible to irrigate them and grow crops there. The cultivation of cotton, rice, etc., was found to be practicable. Provision has been made in the scheme for the carrying out of all the operations required to enable these crops to be grown.

Surveys are now being made with a view to ascertaining the hydraulic possibilities of the region, the establishment of waterways and the harnessing of waterfalls. The work will be begun as soon as these surveys have been completed.

Schemes are also under consideration for the construction of several wireless stations and hospitals, a large military school, law-courts, an up-to-date town-hall, etc.

A large Imperial palace will be built in the grand Guebi (Imperial Palace) of Addis-Ababa in the very near future.

Other Imperial palaces are to be built in various provincial towns.

II. ADMINISTRATIVE METHODS.

In general, the plans for the works mentioned under I are drawn up by the engineers of the Ministry of Public Works; they are then submitted for approval to a commission appointed by the Minister.

The members of this commission are chosen from among the Public Works engineers. The commission may also include technicians who are not Government officials but whose assistance has been requested by the Minister.

However, in the case of particularly important works, public tenders must be invited.

All works are carried out by order and for account of the central authority, either by the Administration itself or by a contractor, according to circumstances.

If it is decided to entrust the execution of the works to a contractor, tenders are always invited.

However, in very exceptional circumstances, a private contract may be placed with the Minister's authorisation.

Works the execution of which is at present in contemplation will be carried out in accordance with new laws which are now being prepared and will shortly be promulgated. In accordance with present requirements, these laws will be more detailed than the old ones.

Up to the present, the administrative methods employed for the execution of public works have met Ethiopia's requirements, but in view of the steady growth in the country's activities, it was necessary to revise, supplement and improve the old laws relating to public works.

III. METHODS EMPLOYED FOR FINANCING THE WORK.

The methods at present employed will be revised under the new laws now in course of preparation.

Generally speaking, all expenditure on the work carried out for account and by order of the central authority is covered by an extraordinary budget of the State.

IV.

A part of the material and equipment for the public works described under I is of national origin, while the remainder is supplied by European and American industries. The whole of the labour employed is Ethiopian.

The problem of unemployment in Ethiopia does not present the same aspect as in the industrial countries of Europe and America. European or American workers are chiefly employed in industry, whereas the vast majority of Ethiopian workers are small artisans. As there are practically no large industries in Ethiopia, the problem of unemployment, with all its burdens, as it is generally understood, does not arise.

V.

The Ethiopian Government has every reason to be satisfied with the results obtained from the execution of the works enumerated under I. However, no country can claim to have escaped the disastrous results of the economic depression which prevails throughout the world, and although Ethiopia is not an industrial country, she has not been able to protect herself from this universal calamity. Notwithstanding this unprecedented economic depression, the Ethiopian Government is glad to have been able to carry out the greater part of its public works programme and to note the steady improvement in the country's economic activity.

FRANCE.¹

**Legislative and Administrative Provisions of the Plan of
Large-scale Works for combating Unemployment.**

DECREE-LAW OF MAY 15TH, 1934.

[*Translation.*]

REALISATION OF A PLAN OF LARGE-SCALE WORKS FOR COMBATING UNEMPLOYMENT
BY MEANS OF THE LIQUID ASSETS OF SOCIAL INSURANCE OFFICES.

Article 1.

§ 1. Notwithstanding the provisions of Article 31 of the Law on Social Insurance, Old Age Insurance Offices and Old Age and Invalidity Insurance Offices and the General Guarantee Office (Caisse générale de garantie) shall, in respect of the fund for increased benefits and joint responsibility (fonds de majoration et de solidarité), allot, from June 1st, 1934, to December 31st, 1940, 75 % of their liquid assets to the constitution of a Common Fund administered by the Deposit and Consignment Office (Caisse des Dépôts et Consignations) under the control of the National Commission provided for in Article 3 of the present decree.

§ 2. The liquid assets of this Common Fund shall be invested by preference in loans to collectivities taking part in the execution of works with a view to reducing unemployment under the conditions laid down in the following articles.

Article 2.

The collectivities referred to in the above article may be departments, communes, syndicates of communes, large railway systems of general interest, public establishments, colonies, protectorates, concessionnaires of public works specially appointed by a decree which is subject to the counter-signature of the Ministers of Finance, Public Works and Labour, or any other regularly constituted organs which obtain the guarantee of a department or of a commune.

Article 3.

The programme of works to which the provisions of the present decree will apply shall be drawn up by a National Commission the composition of which shall be fixed by a decree issued by the Council of Ministers on the proposal of the Minister of Labour.

Article 4.

§ 1. Loans granted out of the Common Fund instituted by Article 1 above shall be concluded under contracts of a uniform type drawn up by the National Commission and between the collectivities concerned and the Deposit and Consignment Office. The said

¹ Information additional to the reply previously sent by this Government and published in the first volume.

loans shall be redeemed by annual payments within a maximum period of thirty years, which period may, however, be extended to fifty years in the case of the large railway systems of general interest. The annual redemption payments shall be calculated in accordance with a uniform rate of interest, fixed periodically by decree of the Minister of Labour and the Minister of Finance after consulting the National Commission provided for in Article 3 above.

§ 2. The contracts referred to in § 1 shall provide not only for annual redemption payments, but also for the obligation on the part of the borrowing collectivities to pay interest for the period between the conclusion of the contract and the drawing, to the debit of the Common Fund, of the amounts borrowed.

Article 5.

§ 1. At the end of each year from 1934 to 1940, the Deposit and Consignment Office shall transmit to the General Guarantee Office and to the social insurance offices concerned a bond stating the amount to be allotted to them in future years out of the annual payments in respect of the loans granted in the previous year and fixed in accordance with the payments made for their account into the Common Fund during the said year.

§ 2. During the entire period of amortisation of the loans granted, the Deposit and Consignment Office shall credit the account of each office every year with the proportion of the annual payments due to them after such payments have been received.

§ 3. The interest payable by the borrowers before the date taken as the starting-point for the amortisation of the loans shall be paid into the Common Fund. All the revenues of this fund shall be distributed by the Deposit and Consignment Office at the end of each year among the General Guarantee Office and the social insurance offices in proportion to the sums paid into the said fund for account of each organisation after deduction of costs of administration.

§ 4. Should its needs so require after December 31st, 1940, the treasury of a social insurance office may cede the whole or a part of its claims to another office. In the absence of a direct agreement, the Deposit and Consignment Office shall deduct the amounts necessary for this transaction from the portion of the liquid assets which it has to invest under Article 31 of the Law on Social Insurance.

Article 6.

The liquid assets of the Old Age Insurance Offices and the Old Age and Invalidity Insurance Offices and of the General Guarantee Office which have not been invested under the conditions laid down in Articles 1 to 5 above shall be invested in accordance with the rules laid down in Article 31, paragraph 1, of the Law on Social Insurance.

Article 7.

§ 1. Paragraph 1 of Article 31 of the Law on Social Insurance shall be replaced by the following provisions :

“ The liquid assets of the insurance offices shall be invested, with due reference to the nature and extent of the risks insured by the offices :

“(1) In State securities or in securities guaranteed by the State; in securities of the Treasury and of the autonomous Amortisation Office; in land or communal bonds of the Land Credit Institution; in bonds or bills of the National

Credit Institution; in bonds or bills of the large railway companies of general interest; in bonds of the departments, communes or syndicates of communes or in loans to those bodies; in the purchase of buildings constructed and entirely completed and situated in towns of more than 100,000 inhabitants or in the Department of the Seine;

“(2) Up to 50% and on the indication of the Board of Administration of the Office or of a commission chosen and empowered by the Office, not only in the securities mentioned in paragraph (1) above but also, subject only to the prior acceptance of the Board of Administration of the General Guarantee Office or a commission empowered by it;

“In loans to departments, communes, syndicates of communes, colonies, protectorates or public establishments, or in loans or securities guaranteed by such collectivities or establishments; in subscriptions to bills or bonds of the National Office of Agricultural Credit, the purchase of buildings which have been constructed and entirely completed and are situated in towns of more than 100,000 inhabitants or in the Department of the Seine; in first mortgage loans on buildings complying with the same conditions up to a total amount of 50% of the value of the building; lastly, in all securities accepted as a guarantee of advances granted by the Bank of France, other than those already included in paragraph (1) above.

“The whole of the investments in buildings by one and the same Office may not exceed 10% of the total amount of its investments. No further investment in buildings may be effected by offices which have already exceeded the above proportion or for their account, so long as the position of such societies has not been regularised.

“The rate of interest on long- and short-term investments of social insurance offices may not be less than minimum rates to be fixed periodically by a decree adopted on the proposal of the Ministers of Finance and of Labour.”

§ 2. Article 76 of the Law on Social Insurance shall be replaced by the following provision :

“The rules for the deposit and investment of social insurance funds prescribed in Articles 30 and 31 of the present law shall be applicable to the autonomous Old Age Insurance Offices engaged in agricultural social insurance and to Mutual Assistance Societies applying Articles 75 and 80 of the present law.”

§ 3. Article 77 of the Law on Social Insurance shall be replaced by the following provision :

“The autonomous Old Age Insurance Offices, however, which deal specially with insured persons engaged in agricultural occupations and the Mutual Assistance Societies applying Articles 75 and 80 of the present law may, within the limit of the authorised cash balance, make deposits at sight with the National Office of Agricultural Credit.”

Article 8.

The present decree shall be subject to ratification by the Chambers, in accordance with the provisions of Article 36 of the Law of February 28th, 1934.

Article 9.

The President of the Council, the Minister of Finance and the Minister of Labour shall be entrusted, each in so far as he is concerned, with the execution of the present decree, which shall be published in the *Official Journal*.

DECREE-LAW OF JUNE 29TH, 1934.

PROCEDURE IN URGENT CASES AND SAFEGUARDING CLAUSE AGAINST SPECULATIONS.

Article 1.

The public works included in the scheme of large-scale works for combating unemployment provided for in the Decree of May 15th, 1934, may be authorised, whatever their nature or extent or the amount involved :

(1) By a decree countersigned by the Minister of Finance and the Ministers concerned, and issued in the form of public administrative regulations, whenever expropriation is necessary;

(2) By a decree countersigned by the Minister of Finance and the Ministers concerned, in the other cases to which, under the legislation in force, a law or a decree issued by the Council of State applies.

The list of works to which this procedure is to be applied must be communicated by the Ministers concerned to the two Chambers within three months from the date on which the works are undertaken.

Article 2.

The application of Article 76 of the Law of May 3rd, 1841, shall be extended to all public works included in the scheme of large-scale works for combating unemployment provided for in the Decree of May 15th, 1934.

Article 3.

Whenever, by application of Articles 2 and 2(a) of the Law of May 3rd, 1841, as amended by the Law of November 6th, 1918, it is necessary to extend the expropriation to buildings situated outside the area of the proposed works, the authorisation for such purpose may in all cases be given by decree of the Council of State.

Article 4.

In the case of expropriation, for purposes of public utility, of buildings affected by the operations necessitated by the public works included in the scheme of large-scale works for combating unemployment provided for by the Decree of May 15th, 1934, the jury shall take as the basis of its estimates the value of such buildings on January 1st, 1934, as ascertained either from declarations made by the taxpayers or from administrative estimates which have not been contested or have been rendered final under the fiscal laws.

Article 5.

The present decree shall be submitted to the Chambers for ratification in accordance with the provisions of Article 36 of the Law of February 28th, 1934.

Article 6.

The President of the Council, the Minister of Finance and the Minister of Labour shall be entrusted, each in so far as he is concerned, with the execution of the present decree, which shall be published in the *Official Journal*.

LAW OF JULY 7TH, 1934, AUTHORISING THE PARTICIPATION OF THE STATE AND OF THE LARGE RAILWAY SYSTEMS OF GENERAL INTEREST IN THE EXECUTION OF LARGE-SCALE WORKS FOR COMBATING UNEMPLOYMENT.

Article 1.

The Ministers concerned shall be authorised to grant State participation in the payment of works undertaken for combating unemployment and carried out under the conditions provided for in the Decree of May 15th, 1934, amending the law on social insurance.

State participation prescribed by the regulations in force for the various kinds of work shall be furnished in the form of annual payments equal to the interest and amortisation charge of the portion borne by the State of the loan contracted by the collectivity concerned. Such annual payments may be made either to the borrowing collectivity or directly for its account to the Common Fund instituted by the Decree of May 15th, 1934. They shall be chargeable to the credits opened in the budgets of the various Ministries for the purpose of executing or subsidising the works in accordance with the table annexed to the present law.

The State participation referred to in the preceding paragraph may not exceed the aggregate amount of 2,897 million francs, this sum including, up to the amount of 425 millions, the subsidies granted under Budget B of the Law of July 11th, 1933, in favour of agricultural equipment, elementary school buildings and local roads.

The above aggregate grant shall, by a decree countersigned by the Ministers of Finance and Labour and the Ministers concerned, be distributed among the various chapters of the budget in such manner that the annual charge per Ministry, after due allowance for charges arising out of authorisations given under Schedule A annexed to the Law of July 11th, 1933, may in no case exceed the total credits opened in the corresponding chapters of the 1934 budget.

Article 2.

The maximum initial outlay for supplementary works and for purchase of rolling-stock which may be carried out by the large railway systems of general interest under annual authorisations contained in the finance laws shall be increased during the years 1934-1940 inclusive, within the limit of 2,725 millions, by the value of works carried out and purchases made with the assistance of loans granted by the Deposit and Consignment Office out of the Common Fund instituted by the above-mentioned Decree of May 15th, 1934.

The loans granted to the large railway systems under the above conditions shall, in respect of the guarantee provided by the Common Fund instituted under Article 13 of the Convention approved by the Law of October 23rd, 1921, and, subsidiarily, in respect of the State's guarantee, be wholly assimilated to the bonds issued under Article 16 of the said Convention.

The works or material, movable or immovable, paid for by means of such loans, shall be returned in full free of cost to the State at the end of the concession or in the event of redemption.

Moreover, no deduction shall be made for replaced or discarded installations or for material which has been scrapped and written off in connection with such work or deliveries.

The present law, after having been discussed and adopted by the Senate and by the Chamber of Deputies, shall be enforced as a State law.

PROGRAMME OF LARGE-SCALE WORKS.

The programme comprises :

I. Works to be carried out without a State subsidy :

(a) By the large railway systems :

The value of these works amounts to 2,625 million francs, composed as follows :

| | (In millions of francs) |
|---|-------------------------|
| (1) Electrification works | 1,300 |
| (2) Modernisation of signalling | 767 |
| (3) Various safety works (tripling of lines, improvement of railway stations) | 558 |

(b) By other bodies :

The value of these works amounts to 2,995 million francs, composed as follows :

| | (In millions of francs) |
|---|-------------------------|
| (1) Town-planning and municipal administration works in the Paris area (water-supply, general sanitation, demolition of insanitary blocks of buildings, reconstruction of bridges in Paris, by-passing through the military boulevards, etc.) | 1,410 |
| (2) Extension of the Metropolitan Railway in Paris and its immediate suburbs | 1,100 |
| (3) Conservancy work on waterfalls, construction of high-tension transmission lines, electric interconnections of the Paris area and other industrial equipment work | 355 |
| (4) Industrial port of Lyons in connection with the Rhone conservancy works | 80 |
| (5) Tourist traffic (preservation of sites) | 50 |

2. Works to be carried out with State subsidies :

(a) By the large railways :

| | (In millions of francs) |
|------------------------------------|-------------------------|
| Abolition of level crossings | 200 |

(b) By other bodies :

The cost of these works amounts to 4,180 million francs, composed as follows :

| | (In millions of francs) |
|--|-------------------------|
| (1) Cheap dwellings | 400 |
| (2) National education (school-buildings) and fine arts | 1,070 |
| (3) Agriculture (rural equipment works) | 1,160 |
| (4) Interior (department and local roads) | 200 |
| (5) Air (Marseilles-Marignane airport, various works) | 35 |
| (6) Public works (roads, seaports and inland navigation ports) | 1,315 |

Summary.

| | Railway systems | Other bodies | Total |
|-----------------------------------|--------------------|--------------|--------|
| Works without State subsidy | 2,625 | 2,995 | 5,620 |
| Works with State subsidy | 200 | 4,180 | 4,380 |
| Total... | 2,825 | 7,175 | 10,000 |

WORK SUBSIDISED BY THE STATE.

The cost of the work "subsidised by the State" amounts to 4,380 million francs. The total includes 400 millions for cheap dwellings; in this matter, State participation is confined to interest allowances under existing legislation and does not involve any special authorisation.

The following table shows the distribution, among the Ministries, of the other work, amounting to 3,980 millions, the total expenditure and that chargeable to the general budget (Law of July 7th, 1934) being shown separately.

| | Total works | State share |
|-------------------------|-------------|-------------|
| National education..... | 1,070 | 808 |
| Agriculture | 1,160 | 925 |
| Interior | 200 | 140 |
| Public works | 1,515 | 1,001 |
| Air | 35 | 23 |
| Total ... | 3,980 | 2,897 |

REGULATIONS OF THE COMMON LABOUR FUND.

I. Collectivities desiring to carry out large-scale works in order to combat unemployment and to benefit for this purpose from the provisions of the Decree-Law of May 15th, 1934, shall send in their applications to the Ministry of Labour :

- (1) Direct, in the case of works for which they are entirely responsible;
- (2) Through the Ministries called upon to share in the expenditure, in the case of works subsidised by the State.¹

In the latter case, the collectivity's application for a loan may relate solely to its own share; the Ministry concerned, in forwarding it with its opinion, shall state the rate and amount of the subsidy allocated to the collectivity for the work in question. The payment of such subsidy shall, moreover, be subject to special rules.

II. Applications so put forward shall be subject to examination by the Technical Sub-Committee and by the National Commission set up by the Ministry of Labour.

This Commission may request either the collectivities themselves or the Ministry to which they are attached to furnish any supplementary information (drafts, estimates, plans, etc.).

The Commission shall decide whether the works in question may be included in the programme referred to in Article 3 of the Decree-Law of May 15th, 1934. The Commission's

¹ The only Ministries authorised by the Law of July 7th, 1934, to take part in important works combating unemployment are the Ministries of the Interior, Agriculture, Public Works, the Air and National Education. To this list should be added the Ministry of Public Health, in respect only of cheap dwellings.

decisions shall be notified by the Minister of Labour to the collectivities concerned and, if they are favourable, to the Director-General of the Deposit and Consignment Office, who shall immediately request the borrowers to send him the documents necessary for drawing up the loan contract.

III. The draft loan contracts shall be submitted to the Finance Sub-Committee, which shall be convened whenever desirable by the Minister of Labour.

The Director-General of the Deposit and Consignment Office shall, however, be authorised to sign, without previously consulting the Sub-Committee, any contracts for amounts less than 1 million francs, when such contracts are in conformity with the model drawn up by the National Commission and when the financial situation of the borrowing collectivity calls for no reservation on his part. The Finance Sub-Committee shall be informed of loan contracts so concluded at its next meeting.

IV. Special regulations have been provided for the payment of State subsidies.

The Decree of September 11th, 1934, authorised the Minister of Finance to procure funds equivalent to the State contribution by drawing on the liquid assets of the Labour Fund. The widest interpretation must naturally be placed on this text and it should be applied whenever the State has to pay a subsidy or assumes responsibility for the whole of a particular work.

Proposals for the allocation of subsidies and schemes of work devolving exclusively upon the State shall be transmitted by the Ministers concerned to the Minister of Labour, who shall submit them to the Technical Sub-Committee and subsequently to the National Commission. Such proposals shall be examined under the same conditions as applications for loans received from collectivities. The Commission's decisions shall be notified by the Minister of Labour to the Ministers concerned.

In order to enable these subsidies to be paid, the Deposit and Consignment Office shall make payments into the Treasury. The sums so paid in shall be entered in a suspense account, to which the actual payments of subsidies made to the recipient collectivities will subsequently be charged. In return for its payments, the Deposit Office shall receive, on behalf of the Common Labour Fund, certificates representing a number of bonds bearing interest at the rate fixed by the total amount of the loans. The suspense account opened in the Treasury's books shall comprise as many subdivisions as there are budgetary chapters concerned. The sums received from the Deposit Office, which are subdivided by chapters, shall be paid every three months on the due date. Each payment shall be equivalent, in principle, to a quarter of the grants appearing in the Decree of July 26th, 1934, which distributes the State subsidy among the various chapters of the general budget;¹ but the total sums relating to a particular chapter may at no time exceed the total amount of the subsidies which the National Commission is authorised to draw from the Common Labour Fund.

Special circulars shall be issued by the Minister of Finance stating the accountancy rules applicable to transactions effected in respect of the above-mentioned suspense account.

V. The Ministries concerned shall, at the end of each month, transmit to the Ministry of Labour, in duplicate, a statement comprising a detailed list of the following items on that date under each budget chapter and department :

(1) Subsidies granted, with the name of the recipient collectivity, the amount of the subsidy, the date of the decision taken and the probable scale of payments;

¹ As an exception, in 1934, the advances—two in number—shall be equal to half the grants provided for that financial year; the first payment shall be made on September 30th and the second on December 31st.

(2) State works undertaken, with the amount of the total expenditure, the amount of payments made and the rate of subsequent payments.

One copy shall be forwarded by the Ministry of Labour to the Deposit and Consignment Office for its information.

VI. The Deposit and Consignment Office shall inform the Ministry of Labour day by day of :

- (a) Contracts concluded ;
- (b) Sums paid in to the Treasury.

At the end of each month, it shall transmit to the Ministry of Labour a statistical return stating :

(1) The total amounts placed to the credit of the Common Labour Fund (since the beginning) by drafts on the liquid assets of the social insurance offices and the General Guarantee Office ;

(2) The total amount of loans granted and sums paid in respect of subsidies ;

(3) The quarterly distribution of the amounts paid or to be paid to borrowers and to the Treasury in respect of all the transactions which have taken place up to that date.

HUNGARY.

In reply to the Circular Letter of March 7th, 1934, the Hungarian Government stated that information on the public works already carried out in Hungary could be found in the closed accounts of the last budgetary period of the Hungarian State and in the reports of the International Danube Commission and of the Hydraulic Technical System Commission of the Danube.

The Secretariat has accordingly consulted these documentary sources and has prepared the three tables given below.

The data which they contain have been taken :

In the case of Table I, from the closed accounts of the Hungarian State for the budgetary period 1932-33;

In the case of Table II, from the annual returns of current maintenance and improvement works submitted by the Hungarian Government to the International Danube Commission and annexed to the memoranda on the questions submitted to that Commission;

In the case of Table III, from the annual summary statements submitted by the Hungarian Government to the Hydraulic Technical System Commission of the Danube and annexed to the Protocols of the Commission.

Table I.

EXPENDITURE ON PUBLIC WORKS DURING THE BUDGETARY PERIOD 1932-33.

Ministry of Trade :

| | Pengö |
|--|--------------|
| Equipment of aerodromes | 131,909.60 |
| Acquisition of land for aerodromes | 320,000.— |
| Bridges on main roads | 389,829.91 |
| Materials for construction of roads | 12,000.— |
| Repair of roads | 608,756.57 |
| Subsidies to communes for the construction of roads | 436,015.32 |
| Improvement of roads for motor traffic | 4,000,000.— |
| Reconstruction of roads | 7,241,977.— |
| Bridges on local roads | 38,490.28 |
| Loans of towns and districts for road-building | 1,550,000.— |
| Road-building work for the purpose of relieving unemployment | 2,671,750.43 |

Ministry of Agriculture :

| | |
|---------------------------|--------------|
| Hydraulic works | 6,224,880.93 |
|---------------------------|--------------|

Post, Telegraphs, Telephones, Wireless :

| | |
|--|--------------|
| Construction of buildings and installation of power-houses | 5,102,386.83 |
|--|--------------|

Table II.

CURRENT WORKS FOR THE UPKEEP AND IMPROVEMENT OF THE HUNGARIAN SECTOR OF THE DANUBE AND ITS INTERNATIONALISED TRIBUTARIES (TISZA, MAROS, DRAVE), CARRIED OUT DURING THE FISCAL YEARS 1929-30, 1930-31, 1931-32, 1932-33 AND 1933-34.

| Type of works | Expenditure in pengö | | | | |
|---|----------------------|-----------|-----------|-----------|-----------|
| | 1929-30 | 1930-31 | 1931-32 | 1932-33 | 1933-34 |
| 1. Preparation of plans and soundings | 33,051 | 27,278 | 3,861 | 9,532 | 17,519 |
| 2. Buoyage of the channel | 35,724 | 35,911 | 31,906 | 1,011 | 21,046 |
| 3. Removal of obstacles | 5,872 | 29,925 | 5,528 | 64,650 | 13,929 |
| 4. Dredging | 290,629 | 136,984 | 51,841 | 92,428 | 258,465 |
| 5. Protection of embankments . | 1,741,265 | 1,382,521 | 901,044 | 969,677 | 507,805 |
| 6. Narrowing of the bed | 429,468 | 397,238 | 195,614 | 59,338 | 316,702 |
| 7. Closure of secondary arms ... | 66,700 | 86,700 | 39,446 | 155,458 | 69,460 |
| 8. Miscellaneous works | 199,809 | 155,939 | 88,198 | 239,754 | 231,372 |
| Total... | 2,802,518 | 2,252,496 | 1,317,438 | 1,591,848 | 1,436,298 |

Table III.

EXPENDITURE EFFECTED BY THE HUNGARIAN GOVERNMENT ON HYDRAULIC WORKS (REGULARISATION OF WATERWAYS, ANTI-FLOOD DEFENCES, IMPROVEMENT OF INLAND WATERWAYS) IN 1929-30 AND 1931-32.

| Works | Expenditure in pengö | | | |
|---|-------------------------|-------------------------|------------|-----------|
| | 1929 | 1930 | 1931 | 1932 |
| 1. On the Danube and its tributaries (the Drave and the Mura) | 1,427,560 | 1,354,500 | 1,194,936 | 923,809 |
| 2. On the Tisza and its tributaries (the Körös and the Maros) | 1,242,000 | 1,189,500 | 1,028,037 | 1,167,513 |
| 3. On other waterways (including stabilisation work and shoring-up of ravines) | 1,877,000 | 801,500 | 2,235,325 | 1,009,023 |
| 4. State contributions, subsidies and loans to syndicated associations for dyke-building and drainage | 8,759,400 | 602,500 | 572,800 | 1,660,062 |
| Total... | 13,305,960 | 3,948,000 | 5,031,098 | 4,760,407 |
| The syndicated associations for dyke-building and drainage spent the following sums: | | | | |
| (1) In the Danube basin | 3,163,346 | 3,234,732 | 1,147,327 | 1,975,797 |
| (2) In the Tisza basin | 11,206,872 | 9,857,835 | 5,953,851 | 2,302,974 |
| Total... | 14,370,218 ¹ | 13,092,567 ² | 7,101,178 | 4,278,771 |
| Aggregate expenditure... | 18,916,778 | 16,438,067 | 12,132,276 | 9,039,178 |

¹ Including the sum of 8,759,400 pengö advanced by the State; the syndicated associations themselves therefore spent 5,610,818 pengö on these works out of their own funds.

² Including the sum of 602,500 pengö advanced by the State; the syndicated associations themselves therefore spent 12,490,067 pengö on these works out of their own funds.

INDIA.

Two statements have been furnished by the Government of India giving particulars under Heads I to III of the League's questionnaire in respect of public works in India costing Rs. 50 lakhs (i.e., 5 million rupees or £375,000) or more.

Statement I relates to works :

- (a) Undertaken since the beginning of the year 1929 and now completed;
- (b) Now in course of execution; and
- (c) The execution of which is at present under contemplation.

Statement II relates to works undertaken prior to January 1st, 1929, and since completed.

STATEMENT I.

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|---|---------------------------------------|----------------------|--|-----------------------------------|---|---|
| Name of work and category | Estimated cost in crores ¹ | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

(a) Undertaken since the beginning of the year 1929 and now completed.

| | | | | | | |
|---|------|---------|---------|--|--|--|
| <i>Hydro-electric Schemes :</i> | | | | | | |
| 1. Pykara hydro-electric scheme. | 1.36 | 1929-30 | 1932-33 | The project provides for the generation of electric energy from a fall of over 3,000 feet in the Pykara River and its transmission to neighbouring districts in the Madras Presidency. | Executed by the Government of Madras as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds (0.37 crore) and provincial balances (0.99 crore). |
| <i>Railway Lines :</i> | | | | | | |
| 2. Bidar-Purli Railway (Hyderabad State). | 0.96 | 1931 | 1933 | New line intended to open out fertile areas which were not previously served by a railway. | Executed by His Exalted Highness the Nizam's Government as a State work. | Financed by His Exalted Highness the Nizam's Government. |

(b) Now in course of execution.

| | | | | | | |
|-------------------------------------|------|---------|--|---|--|--|
| <i>Irrigation Projects :</i> | | | | | | |
| 1. Hira Valley development project. | 5.20 | 1912-13 | 1939-40 (most of the work will, however, be completed by 1936-37). | The project comprises : (a) The Lloyd dam, at Shatgar, impounding about 24,200 million cubic feet of water in a storage tank formed by a masonry dam which opens the valley of the Yolwandi River in the Bombay Presidency; (b) A right bank canal, 106 miles long, designed to irrigate 132,000 acres of land; and (c) The remodelling of the old Hira left bank canal. | The work is being executed by the Government of Bombay as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT I (continued).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|---|----------------------------|----------------------|--|---|---|---|
| Name of work and category | Estimated cost in crores 1 | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| x | 2 | 3 | 4 | 5 | 6 | 7 |
| (b) Now in course of execution (continued). | | | | | | |
| 2. Sukkur (Lloyd) barrage project. | 20.03 | 1923-24 | 1936-37 | The project consists of a barrage across the River Indus, situated about three miles below the gorge at Sukkur, in the Bombay Presidency, with three canals on the right bank and four on the left bank taking off immediately above the barrage. The scheme is designed to irrigate about 5,453,000 acres of land. | The work is being executed by the Government of Bombay as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 3. Cauvery (Mettur) reservoir project. | 6.79 | 1925-26 | 1934-35 | This project provides for the irrigation of 301,000 acres of land by means of canals from a reservoir on the Cauvery River, at Mettur, in the Madras Presidency. | The work is being executed by the Government of Madras as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds (6.13 crores) and provincial balances (0.66 crore). |
| 4. State tube wells. | 0.72 | 1933 | 1938 | This project provides for irrigation by hydro-electric pumping of the dry tracts in the western districts of the United Provinces. | The work is being executed by the Government of the United Provinces as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 5. Damodar canal project. | 1.11 | 1926-27 | 1935-36 | This project provides for the irrigation of 160,000 acres of land by means of canals from the River Damodar, in the Bengal Presidency. | Executed by the Government of Bengal as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 6. Irwin canal (Mysore State) | 1.98 | 1927 | In course of execution. | The canal, with its branches and sub-branches, is 180 miles long. The discharging capacity of the canal is 2,200 cusecs and it is capable of irrigating 120,000 acres. | The work is being carried out departmentally by the Public Works Department of the Mysore State. | The work is being financed by the Mysore State from loan funds. |

| | | | | | | |
|--|------|---------|--|--|---|---|
| 7. Parbati irrigation project (Gwalior State). | 1.25 | 1917 | 1937 | This project provides for two reservoirs impounding 10,000 million cubic feet and a system of channels to irrigate 70,000 acres of land. | A portion of the work is being carried out by the Gwalior State departmentally, and the rest of the work is being done by contract. | The work is being financed from the ordinary budget of the State. |
| <i>Building Schemes :</i> | | | | | | |
| 1. New capital at Delhi. | 0.90 | 1933-34 | 1935-36 | The project provides for the construction of additional residential accommodation for officers and members of the Indian Legislature and of a hospital at New Delhi. | The work is being executed by the Government of India as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 2. Osmania University Buildings (Hyderabad State). | 1.29 | 1933 | 1938 | Programme for a residential university in the Hyderabad State. | The work is being carried out through contract agency. | Financed from the ordinary budget of the Hyderabad State. |
| 3. Provision of railway staff quarters at Howrah, East Indian Railway. | 0.53 | 1929 | 1934 | To provide housing for the employees of the East Indian Railway, owing to dearth of suitable private accommodation. | The work is being executed by the Government of India through the East Indian Railway. | Financed by the Government of India from loan funds. |
| <i>Roads and Bridges :</i> | | | | | | |
| 1. Rangoon - Prome - Taungdingyi - Yenangyaung - Kyaukpadaung - Meiktila road, inclusive of alternative alignment via Shwebandaw - Meiktila Border - Zayetkon. | 1.41 | 1926 | Cannot be forecast owing to prevailing financial stringency. | The project provides for the construction of a trunk road from Rangoon via Prome to Meiktila. | The work is being executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenue. |
| 2. Rangoon - Moulmein - Mergui road. | 1.71 | 1926 | Cannot be forecast owing to prevailing financial stringency. | The project provides for the construction of a trunk road from Rangoon to Mergui. | The work is being executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenues. |
| 3. Nili Bar communications project. | 1.81 | 1925-26 | In abeyance since 1931-32 for want of funds. | The project was framed to provide communications and other facilities accessory thereto in the Nili Bar Colony Area (Punjab). | The work is being executed by the Government of the Punjab as a Government project under control of Government engineers. | Expenditure charged to capital. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT I (continued).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|---|---------------------------------------|----------------------|--|---|---|--|
| Name of work and category | Estimated cost in crores ¹ | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (b) Now in course of execution (continued). | | | | | | |
| 4. Improvement of road communications in Assam. | 0.97 | 1929-30 | In abeyance since 1933-34 as a result of financial stringency. | The project provides for the improvement of 735.56 miles of roads in Assam. | The work is being executed by the Government of Assam as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| <i>Railway Bridges :</i> | | | | | | |
| 1. Rebuilding Berbudda Bridge. | 1.04 | 1932 | Not known at present. | The project relates to the reconstruction of a railway bridge. | The work is being executed by the Government of India through the Bombay-Baroda and Central India Railway. | Financed by the Government of India from loan funds. |
| 2. Protection works of the Hardinge Bridge at Sara. | 1.16 | 1933 | Not known at present. | The project is intended to meet an attack by the River Ganges, which is showing a tendency to return to an old channel. | The work is being executed by the Government of India through the Eastern Bengal Railway. | Financed by the Government of India from loan funds. |
| <i>Hydro-electric Schemes :</i> | | | | | | |
| 1. Ganges Canal hydro - electric scheme. | 2.32 | 1928-29 | 1937-38 | This project is for generating electric energy from the Ganges Canal and transmitting it to the neighbouring districts in the United Provinces. | The work is being executed by the Government of the United Provinces as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 2. Pallivasal hydro-electric project (electric installation, hydro-electric and heating powercentres, motive power transmission). | 0.71 | 1933 | 1936 | The works comprise a water tunnel 10,000 feet long, 2 penstock lines for discharging 64 cusecs of water, installation of 3 generating sets each of 5,000 KVA. capacity, 106 miles of 66 KV. transmission lines, 60 miles of 11 KV. subsidiary lines, and 45 miles of 1,100-volt distribution lines to complete the distribution of supply throughout the north of the Travancore State. | The scheme is worked by the Travancore Government through their electrical engineer. | The scheme is being financed by the Travancore Government from the State revenues. |

| | | | | | | |
|--|------|------|--------------|---|--|---|
| 3. Hydro - electric installations (Kashmir). | 0.64 | 1905 | In progress. | The scheme is intended for the supply of electric energy in the Kashmir State for lighting and industrial purposes. | The work is being carried out by the Kashmir State departmentally. | The expenditure is being charged to the ordinary budget of the State. |
| <i>Railway Electrification Schemes :</i> | | | | | | |
| 1. Great Indian Peninsula Railway main line electrification, Kalyan to Poona and Igatpuri. | 5.13 | 1925 | 1935 | The project provides for the substitution of electric for steam traction. | The work is being executed by the Government of India through the Great Indian Peninsula Railway and with the advice of Messrs. Merz and Partners, electrical engineers. | Financed by the Government of India from loan funds. |
| 2. Kalyan (Chola) Power House, Great Indian Peninsula Railway. | 1.31 | 1926 | 1935 | To supply power for the above scheme. | Ditto. | Ditto. |
| 3. Great Indian Peninsula Railway suburban electrification scheme, Bombay. | 2.61 | 1923 | 1935 | The scheme provides for the substitution of electric for steam traction. | Ditto. | Ditto. |
| 4. Madras suburban electrification scheme, South Indian Railway. | 0.72 | 1929 | 1935 | Ditto. | The work is being executed by the Government of India through the South Indian Railway and with the advice of Messrs. Merz and Partners. | Ditto. |
| 5. Bombay - Baroda and Central India Railway suburban electrification scheme, Bombay. | 2.02 | 1925 | 1935 | Ditto. | The work is being executed by the Government of India through the Bombay-Baroda and Central India Railway and with the advice of Messrs. Merz and Partners. | Ditto. |
| <i>Railway Lines :</i> | | | | | | |
| 1. Doubling of the Cawnpore-Tundla section, East Indian Railway. | 0.94 | 1930 | 1935 | The scheme is intended to cope with the existing and anticipated traffic. | The work is being executed by the Government of India through the East Indian Railway. | Ditto. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT I (continued).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|--|---------------------------------------|----------------------|---|---|---|--|
| Name of work and category | Estimated cost in crores ¹ | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (b) Now in course of execution (continued). | | | | | | |
| 2. Shoranur - Cochin. Conversion to broad gauge, South Indian Railway. | 0.79 | 1930 | 1934 | The scheme is intended to facilitate traffic to and from the new harbour at Cochin and is in pursuance of the decision to serve the harbour on the broad gauge. | The work is being executed through the agency of the South Indian Railway Administration from funds provided by the Cochin State. | Financed by the Cochin State. |
| 3. Mauli-Phulad Railway (Mewar State, Rajputana). | 0.92 | 1928 | 1936 | 65 miles in hilly and undulating country and 13 miles of mountainous railway. | The work is being carried out by the executive of the Mewar State's open line railway. | The work is being financed from the Mewar State funds. |
| <i>Other Works :</i> | | | | | | |
| 1. Back Bay reclamation scheme, Bombay. | 7.23 | 1920-21 | 1948-49 | The project provides for the reclamation of 440 acres of land in the Back Bay, in Bombay, and for the gradual development of part of this area for leasing as building sites. | The work is being executed by the Government of Bombay as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 2. Combined Poona drainage improvement scheme. | 0.53 | 1925 | The major portion of the work has already been completed. The remaining portion is expected to be completed by about 1946-47. | The project provides for the internal sewerage of the Poona City with an outfall sewer and pumping station common to all the Poona local bodies—viz., the Poona City Municipality, the Poona Suburban Municipality, the Poona Cantonment Authority and the railway authorities. | The work is being executed by the Government of Bombay partly by Government and partly by contribution under the control of Government engineers. | The work has been financed partly from provincial funds and partly by grants-in-aid and loans to the Poona City Municipality and advances to other local bodies mentioned in column 5. |
| 3. Sewerage works and storm-water drainage works, Madras. | 0.68 | 1930 | 1936 | The scheme is for sewer-laying and its appurtenances, including construction of sewage-pumping stations. | The work is being executed partly by contract and partly by direct departmental labour. | Financed by means of loans and grants sanctioned by the Government of Madras. |

| | | | | | | |
|---|------|---------|---|--|---|---|
| Special water supply works, Madras City. | 0.79 | 1911 | 1940 | The work consists of improvements to city water distribution system, waste-water detection scheme, construction of pumping-stations, filter-beds, conduit, elevated tank, etc. | The work is being executed mostly by contract and the rest departmentally. | Financed by means of loans and grants sanctioned by the Government of Madras. |
| 5. Development of Cochin Harbour. | 1.86 | 1920 | Major portion of the work has been carried out, but the execution of the remaining work has been suspended since 1933-34. | The scheme is intended to convert the port of Cochin into a really important port by providing a good inner harbour with all terminal facilities for handling passenger and goods traffic. | The scheme is governed by the " Summary of ports agreed upon by the Government of India, the Government of Madras and the Darbars of Travancore and Cochin for the development of Cochin Harbour ". The scheme is being executed by the Government of Madras as a Government work under the supervision of their Harbour Engineer-in-Chief. | The scheme is being financed by the Government of Madras from the provincial balance and also from contributions made by the Travancore and Cochin Darbars. |
| 6. Development of Bhurkunda colliery. | 0.55 | 1924 | Not known at present. | The work is intended to supply the State Railways with their own coal, instead of relying on the open market. | The work is being executed by the Government of India under the administrative control of the Chief Mining Engineer, Railway Board. | Financed by the Government of India from loan funds. |
| 7. Indore City water supply and drainage project. | 0.73 | 1929 | 1937 | The work consists of a lake for the storage of water for Indore City, including pumping plant and filtration works. Part of the drainage scheme designed for Indore City is also included in the project. | The works are given out mainly by contract and partly are being carried out departmentally by the Indore State. | The work is being financed partly from the Indore State revenues and partly from loan funds. |
| 8. Willingdon water works, Trivandrum. | 0.52 | 1928-29 | 1936-37 | The scheme is a combination of pumping and gravity services for continuous supply of drinking-water, filtered and purified chemically and bacteriologically, for a daily supply of 4½ million gallons for a population of 135,000 in 1961. | The work is being carried out partly by contract and partly by the Travancore Government departmental labour. | Expenditure is being charged to capital not charged to the revenue of the State. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT I (continued).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|---|----------------------------|----------------------|--|---|---|---|
| Name of work and category | Estimated cost in crores 1 | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| (b) Now in course of execution (concluded). | | | | | | |
| 9. Sri Chamarajendra reservoir and water works for water supply to Bangalore. | 0.63 | 1933 | 1935 | The reservoir dam is made of rubble masonry in Surki mortar. It is proposed to be completed in two stages. At the second and final stage, maximum height of dam at deepest portion would be 162 feet, and length 1,400 feet. Length of the rising main to Bangalore is 16 miles 2 furlongs, of which 13½ miles is of cast-iron pipes, balance being of steel of 24 inches diameter. Total head against which water is pumped is 880 feet. There are 6 units of Jewell filters erected. | The entire work has been carried out by the Public Works Department of the Mysore State. | The work is being financed by the Mysore State from loans. |
| 10. Krishnaraja-Sagara (Mysore State). | 2.50 | 1911 | In course of execution. | The reservoir is across the River Cauvery and is made of rubble masonry in Surki mortar. It is 1½ miles long and 130 feet in height above river bed, consists of irrigation sluices (three of 6 by 12 feet), turbine sluices, 4 pipes of 6 feet diameter, scouring sluices (three of 6 by 15 feet and eight of 6 by 12 feet) and 152 sluices for passing of flood discharges. Of these 152 gates, 48 are of automatic type and the rest are operated electrically by lifting machines. Effective capacity : 4,400 million cubic ft. | The work is being carried out departmentally by the Public Works Department of the Mysore State. | The work is being financed by the Mysore State from loan funds. |
| 11. Remodelling Hyderabad water supply (Hyderabad State). | 0.60 | 1931 | 1940 | The existing system of water supply is based on 25 gallons per head. Remodelling allows 45 gallons per head. | The work is being carried out through contract agency. | The work is being financed from the ordinary budget of the Hyderabad State. |

(c) *The execution of which is at present in contemplation or schemes for which are in preparation.*

| | | | | | | |
|--|---------------------|--|---------|--|---|--|
| 1. Reconstruction of Government, etc., buildings in Bihar, consequent on the earthquake of January 1934. | 1.00 (approximate). | The estimates, etc., are at present under preparation. | | The project is for the reconstruction of Government and local bodies buildings damaged during the earthquake of January 15th, 1934. | The work will be carried out by the Government of Bihar and Orissa as a Government work under the supervision of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 2. The Mettur hydro-electric scheme. | 1.30 | 1935-36 | 1937-38 | The scheme is for the generation of electric energy from the Mettur reservoir of a minimum of 5,760 kw. primary or continuous power and development of additional power to meet seasonal requirements during the main irrigation season, when there will be more supply of water. Power will be transmitted to the neighbouring districts in the Presidency. | To be executed by the Government of Madras as a Government work under the control of Government engineers. | Either from loans from the provincial loans fund or from the provincial balances, as may be found convenient from time to time. |
| 3. New Howrah bridge over the River Hooghly. | 2.47 | 1935 | — | The scheme provides a cantilever bridge to replace the existing connecting bridge between Calcutta and Howrah. | The work will be executed through contracts under the supervision of the New Howrah Bridge Commissioners, a local body constituted under the New Howrah Bridge Act, 1926. | The work will be financed mainly from internal loans guaranteed by Government, but also from Government contributions from funds raised by taxation on motor-vehicles. The loans will be repaid from the bridge fund created by direct taxation and from contributions from public revenues. |
| 4. Hydro - electric scheme (Cochin State). | 0.68 | 1940 | 1942 | The scheme is to harness the waterfalls at Poringalkothu, on the Chalakudi River, in the Cochin State. Available head is about 550 feet and capacity of initial installation is to be 4,500 kw. Power will be transmitted to the towns of Trichur, Ernakulam and the Cochin Harbour. | The work will be undertaken by the Cochin Government, and the actual execution will be on contract. | The work will be financed probably by a loan raised for the purpose. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT I (concluded).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|---|----------------------------|----------------------|--|-----------------------------------|---|---|
| Name of work and category | Estimated cost in crores 1 | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |

(c) The execution of which is at present in contemplation or schemes for which are in preparation (concluded).

| | | | | | | |
|---|--|---|---|---|--|---|
| 5. Lakkavalli reservoir project across the Bhadra River (Mysore State). | 6 to 7 | — | — | The project is under investigation for constructing a reservoir with a storage depth of 180 feet to irrigate about 2 lakhs of acres in the parched areas of Shimoga and Chitaldrug districts and also to generate power to an extent of 17,000 h.p. to serve the local needs. | — | — |
| 6. Joint irrigation scheme on the Tungabhadra by the Madras Government and the Hyderabad State. | 2.91 (joint works) and 4.25 for canal on Hyderabad side. | — | — | The project relates to the construction of a storage reservoir with distribution system for irrigating 570,000 acres of land. | Will be carried out by the Hyderabad State Public Works Department departmentally. | The question of financing the scheme will be taken up when it is decided to start the work. |
| 7. Lower Krishna reservoir (Hyderabad State). | 12.15 | — | — | The project relates to the construction of a storage reservoir with distribution system for irrigating 900,000 acres of land. | Will be carried out departmentally by the State Public Works Department. | The question of financing the scheme will be taken up when it is decided to start the work. |
| 8. Upper Krishna reservoir (Hyderabad State). | 8.57 | — | — | The project relates to the construction of a storage reservoir with distribution system for irrigating 595,000 acres of land. | Will be carried out departmentally by the Hyderabad State Public Works Dept. | The question of financing the scheme will be considered when it is decided to take up the work. |
| 9. Bheema reservoir project (Hyderabad State). | 3.00 | — | — | The project relates to the construction of a storage reservoir with distribution system for irrigating 220,000 acres of land. | Will be carried out departmentally by the Hyderabad State Public Works Dept. | The question of financing the scheme will be considered when it is decided to take up the work. |

1 crore = 100,00,000 rupees = ₹750,000.

STATEMENT II.

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|--|---------------------------------------|----------------------|--|--|---|--|
| Name of work and category | Estimated cost in crores ¹ | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| I | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Works undertaken prior to 1929 and since completed.</i> | | | | | | |
| <i>Irrigation Schemes :</i> | | | | | | |
| 1. Sarda Canal project. | 10.02 | 1919-20 | 1932-33 | This project provides for the irrigation of 1,350,000 acres of land by means of canals from the Sarda River in the United Provinces. | Executed by the Government of the United Provinces as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 2. Sutlej Valley project. | 23.86 | 1921-22 | 1932-33 | This project provides for the annual irrigation of 1,867,000 acres of land by means of canals from the Sutlej River in the Punjab. A further large area is irrigated in the Bahawalpur and Bikaner States. | Executed by the Government of the Punjab as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. A portion of the expenditure was contributed by the States of Bikaner and Bahawalpur. |
| 3. Kharung tank project. | 0.65 | 1920-21 | 1930-31 | This project provides for the irrigation of 60,000 acres of land by means of channels from the Kharung tank in the Central Provinces. | Executed by the Government of the Central Provinces as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 4. Maniari tank project. | 0.60 | 1923-24 | 1932-33 | This project provides for the irrigation of 68,600 acres of land by means of channels from the Maniari tank in the Central Provinces. | Executed by the Government of the Central Provinces as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from loan funds. |
| 5. Nizamsagar project (Hyderabad State). | 3.66 | 1924 | 1931 | This project provides for a storage reservoir with distribution system for irrigating 275,000 acres of land. | Carried out departmentally by the Hyderabad State Public Works Department. | Financed from the general balances of the State and from loan funds. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT II (continued).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|--|----------------------------|----------------------|--|--|---|---|
| Name of work and category | Estimated cost in crores † | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Works undertaken prior to 1929 and since completed (continued).</i> | | | | | | |
| <i>Hydro-electric Schemes :</i> | | | | | | |
| 1. The Uhl River hydro-electric scheme. | 7.00 | 1926-27 | 1933-34 | The scheme consists in diverting the Uhl River at an altitude of 6,000 feet through a pressure tunnel of 9½ feet diameter and nearly three miles long, at the end of which the water is dropped through a fall of 1,800 feet to a power station. At this stage, the scheme is capable of developing 36,000 kw. From the power station, the energy is transmitted over 224 miles of 132 kv. and 140 miles of 66 kv. lines covering a large portion of the Punjab. | Executed by the Government of the Punjab as a Government work under the control of Government engineers, important sections of the work having been given out on erection contracts for execution in accordance with prescribed specifications. The construction of the system in British India and the distribution of energy are subject to the provisions of the Indian Electricity Act, 1910. | Expenditure charged to capital and financed from loan funds. |
| <i>Building Schemes :</i> | | | | | | |
| 1. Mingaladon cantonment project. | 0.95 | 1925 | 1930 | The project provides for the construction of accommodation for troops, arsenal and ordnance, supply and transport lines, brigade staff, cantonment department and ancillary services. | Executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenues. |
| 2. University project, Rangoon. | 1.25 | 1926 | 1931 | The project provides for the construction of the buildings required for the University of Rangoon, ancillary services and a training college. | Executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenues. |
| 3. Law Courts project. | 0.50 | 1926 | 1930 | The project provides for the construction of additional office accommodation for magistrates and police, and other Government offices of various departments whose headquarters are in Rangoon. | Executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenues. |

| | | | | | | |
|--|------|------|---------|--|---|--|
| 4. Railway central workshops and town scheme at Golden Rock, Trichinopoly. | 3.15 | 1925 | 1929 | The scheme is intended to provide up-to-date combined broad and metre gauge shops for the South Indian Railway system in place of the old scattered arrangements, with the necessary quarters for staff. | Executed by the Government of India through the South Indian Railway. | Financed by Government of India from loan funds. |
| <i>Roads and Bridges :</i> | | | | | | |
| 1. Rangoon - Toungoo - Mandalay road. | 2.00 | 1926 | 1933-34 | The project provides for the construction of a trunk road from Rangoon to Mandalay. | Executed by the Government of Burma as a Government work under the control of Government engineers. | Expenditure charged to capital and financed from ordinary revenues. |
| 2. Ava Bridge, at Sagaing (Burma). | 1.51 | 1927 | 1934 | The scheme provides for the replacement of ferry arrangements which were unsatisfactory during flood seasons and for connecting up permanently the two large sections of the Burma Railways. | Executed by the Government of India through the Burma Railways. | Financed by the Government of India from loan funds, the roadway being paid for by the Burma Government. |
| <i>Railway Lines :</i> | | | | | | |
| 1. Kangra Valley railway. | 2.96 | 1926 | 1929 | A new railway line. | Executed by the Government of India through the North Western Railway. | Financed by the Government of India from loan funds. |
| 2. Chiniot - Khusal railway. | 1.30 | 1927 | 1932 | Ditto. | Ditto. | Ditto. |
| 3. Sind left bank feeders railway. | 0.84 | 1928 | 1931 | Ditto. | Ditto. | Ditto. |
| 4. Amritsar-Narowal railway. | 0.62 | 1926 | 1929 | Ditto. | Ditto. | Ditto. |
| 5. Kila Saifulla - Fort Sandeman railway. | 0.56 | 1927 | 1929 | Ditto. | Ditto. | Ditto. |
| 6. Calcutta Chord railway. | 3.20 | 1926 | 1932 | The scheme is intended to provide direct access (previously not available) to the docks for mineral trains from the coal-fields. It includes a bridge over the Hoogly. | Executed by the Government of India through the East Indian Railway. | Ditto. |
| 7. Lucknow-Sultanpur - Safarabad railway. | 0.97 | 1928 | 1932 | A new railway line. | Ditto. | Ditto. |

¹ 1 crore = 100,00,000 rupees = £750,000.

STATEMENT II (concluded).

| I. A Brief Description of the Main Public Works | | | | | II. The Principal Administrative Methods followed or contemplated for the Execution of the Work referred to in I and any Legal Provision relating to the Work | III. The Principal Methods employed for financing Such Work |
|--|----------------------------|----------------------|--|--|---|---|
| Name of work and category | Estimated cost in crores 1 | Year of commencement | Year of actual or anticipated completion | Remarks on the nature of the work | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <i>Works undertaken prior to 1929 and since completed (concluded).</i> | | | | | | |
| 8. Abdulpur-Nawabganj railway. | 0.84 | 1927 | 1933 | A new railway line. | Executed by the Government of India through the East Bengal Railway. | Financed by the Government of India from loan funds. |
| 9. Kalukhali - Bhatapara railway. | 0.55 | 1928 | 1932 | Ditto. | Ditto. | Ditto. |
| 10. Taungdwingyi-Kyankpadaung railway. | 0.95 | 1925 | 1933 | Ditto. | Executed by the Government of India through the Burma Railways. | Ditto. |
| 11. Myingyan-Nategyi-Paleik railway. | 0.66 | 1926 | 1933 | Ditto. | Ditto. | Ditto. |
| 12. Pollachi - Palghat railway. | 0.54 | 1928 | 1932 | Ditto. | Executed by the Government of India through the South Indian Railway. | Ditto. |
| 13. Nidadavolu-Narasapur railway. | 0.69 | 1925 | 1929 | Ditto. | Executed by the Government of India through the Madras and Southern Mahratta Railway. | Ditto. |
| 14. Cawnpore remodelling. | 0.78 | 1926 | 1933 | To provide adequate and up-to-date arrangements for the increased traffic. | Executed by the Government of India through the East India Railway. | Ditto. |
| 15. Erode remodelling. | 0.60 | 1928 | 1934 | Ditto. | Executed by the Government of India through the South Indian Railway. | Ditto. |
| 16. Victoria terminus railways (Bombay). | 0.95 | 1925 | 1934 | Ditto. | Executed by the Government of India through the G.I.P. Railway. | Ditto. |

| | | | | | | |
|--|------|------|------|---|---|--|
| 17. Madras improvement schemes. | 1.00 | 1925 | 1933 | The scheme provides for the doubling and trebling of certain suburban sections and consequent remodeling of yards. | Executed by the Government of India through the South Indian Railway. | Financed by the Government of India from loan funds. |
| 18. Bombay central station. | 1.41 | 1925 | 1933 | In replacement of facilities which had to be abandoned at Colaba when the land was surrendered for housing developments in Bombay. | Executed by the Government of India through the Bombay-Baroda and Central India Railway. | Ditto. |
| 19. New locomotive repair shops at Dohad. | 1.40 | 1926 | 1933 | The transfer of the locomotive shops from Parel, Bombay, to Dohad was to do away with the disabilities suffered by the broad-gauge shops at Parel, which were old and gave no room for expansion, and where labour rates were high. | Ditto. | Ditto. |
| 20. Remodelling locomotive shops at Kanchrapara. | 0.51 | 1925 | 1934 | To provide adequate and up-to-date facilities. | Executed by the Government of India through the Eastern Bengal Railway. | Ditto. |
| Harbour Scheme : Vizagapatam Harbour. | 3.99 | 1925 | 1933 | To provide a new, all-the-year-round harbour for ocean-going vessels and to provide a direct outlet for the produce (mineral) of the Central Provinces. | Executed by the Government of India through the agency of the Bengal Nagpur Railway Administration. | Ditto. |

SUPPLEMENTARY STATEMENT.

(c) *Work the execution of which is at present in contemplation or schemes for which are in preparation.*

| | | | | | | |
|---|------|------|------|---|--|---|
| Housing programme of the Nizam's Regular Forces. (Hyderabad State.) | 1.00 | 1935 | 1940 | The scheme is intended to provide accommodation for men and horses in modern buildings. | The work will be carried out by the State Public Works Department. | The State is not yet committed to the liability, but when it is decided to take up the work it will be financed from the State Revenues. (Three 'A' Class units have already been provided for during 1929-1934 at a cost of Rs. 300,00,000 debited to State Revenues.) |
|---|------|------|------|---|--|---|

¹ 1 crore = 100,00,000 rupees = £750,000.

IRISH FREE STATE.

(a) ROADS AND BRIDGES.

I.

(a) Before dealing with the period from 1929, it may be well to refer briefly to the position concerning the roads of the country prior to the establishment of the Irish Free State (Saorstát Eireann).

The roads of the State comprise about 47,000 miles, of which there are :

(1) About 9,800 miles of main roads — *i.e.*, roads of national and provincial importance, subdivided into approximately :

(i) 4,000 miles of through-traffic importance, considering the State as a whole; and

(ii) 5,800 miles of through-traffic value mainly from the county point of view;

(2) 36,500 miles of local or district roads, very many of them carrying merely local traffic.

As to the conditions of the roads themselves prior to 1922, they were frequently stated to be among the worst in Europe. There had been relatively trifling sums expended upon their improvement. The road conditions were particularly difficult from 1914 onwards. Between the years 1922 and 1929, the Government allocated amongst the various local authorities a sum of £5,809,503 for the maintenance and improvement of roads and bridges. Much of this had to be expended, owing to the very seriously run-down condition of the roads, on what might be termed foundation work. The roads in the Irish Free State had not been built to carry heavy motor traffic. Many of them had very poor foundations, so that the first task to be taken in hand was the strengthening of the principal traffic routes. Very many of even those routes were narrow and uneven. Such repairs as had, from time to time, been carried out resulted in the crown of the road being, in the average case, much higher than the sides. Furthermore, the type of work carried out was necessarily of the cheapest form of water-bound macadam, and the result was that even moderately heavy traffic very quickly disintegrated the surface. The Government, therefore, in order to provide roads which would stand up to modern traffic, aimed at strengthening and widening the roads, and having them resurfaced, as far as practicable, with a waterproof surface.

Prior to 1929, upwards of 1,000 miles of roads had been strengthened and resurfaced. The resurfacing, however, was, in many instances, laid down from the point of view of preparing the roads for more enduring surfaces in subsequent years. In the period 1926

to 1930, a special scheme of improvement was carried out, embracing 1,121 miles. The improvement involved the following work :

Resurfacing :

| | Miles |
|--|-------|
| (1) By steamrolling : including the laying of tar or bitumen macadam | 1,048 |
| (2) In concrete and asphalt..... | 62 |
| Alterations, diversions, etc. | 11 |

The following is a summary of the work carried out since 1930, approximately :

- 3,000 miles of water-bound macadam steamrolled and tar-dressed;
- 600 miles laid in tar macadam or bitumen macadam;
- 135 miles laid in concrete or asphalt;
- 2,000 widenings and corners removed;
- 400 bridges improved or replaced, including 100 new bridges where no bridge previously existed;
- 500 miles of new roads made or taken over;
- 2,000 miles of roads annually surfaced by dressing with tar or bitumen.

The mileage of dust-free road surfaces in 1933-34 was approximately 6,400, compared with 3,500 in the year 1929-30.

(b) During the financial year 1933-34, works similar to the foregoing were being carried out at a cost to State (Government) funds of approximately £750,000.

(c) The road and bridge programme for the year 1934-35 embraces an expenditure of approximately £800,000, and will be generally of the nature of the work outlined under (a).

II.

The State does not undertake the actual work of road improvement. It makes grants to the councils of counties, county boroughs and urban districts. These grants are partly a contribution towards the cost of the maintenance of main roads, and, before payment is made, the State, through the Department of Local Government and Public Health, must be satisfied that the work is efficiently and economically carried out. The work to be carried out on roads by way of *maintenance* is selected by the local authority, acting on the advice of their chief engineer or surveyor. In addition to the maintenance of roads, works of improvement are also carried out by the councils referred to. The Department of Local Government and Public Health indicates to the councils the amount of money available from State funds for *improvement*, and also indicates the particular work to be carried out. The council's engineer or surveyor carries out the work, either by employing men directly or through the medium of a contract entered into between his council and a firm of road contractors. The Department's inspectors visit both the maintenance work and improvement work from time to time during progress, and report to the Department as to the value of the work done before the Department makes payments. The councils, at the same time, vote money for the repair and, to some small extent, the improvement of their roads. The work of repair is carried out by the council's engineer or surveyor, who has a technical staff of assistant surveyors under his charge. The work of repair is carried out on approximately half the mileage of roads by the employment of men directly, and, on the other half, by setting out the work in small lengths to contract. The contractors in such cases are either labourers, or landholders with usually very small holdings. These small road contracts involve an annual expenditure of about £250,000, almost 100% of which represents expenditure on labour. They keep the small land-

holders occupied at a period of the year when agricultural work is not possible or necessary. Such contracts are, however, confined to the rural areas of the counties, and are only made, generally, in respect of roads of minor importance. The total amount expended by the councils in the same areas by direct employment of men is about £1,250,000 per annum.

The legal provisions relating to roads and bridges are to be found scattered in many enactments. The main enactments dealing with the subject are the Local Government Act, 1925, the Roads Act, 1920, and the Development and Road Improvement Funds Act, 1909.

III.

The principal methods employed for financing road and bridge work are as follows :

(a) The local authorities—*i.e.*, the councils of the several counties, county boroughs and urban districts—estimate annually the cost of keeping the roads in their areas in proper repair, and then raise the amount required by levying a rate on the occupiers of lands and buildings on the basis of valuation of the premises. For works of improvement, a similar course is followed, but, if the cost of carrying out a particular type of improvement is large and the work of improvement likely to last for many years, the council borrows from its treasurer the amount required. Such borrowing cannot be made except with the consent of the Minister for Local Government and Public Health.

(b) Under the Finance Act, 1920, and subsequent Finance Acts, and the Roads Act, 1920, the owners of mechanically-propelled vehicles pay an annual duty for the use of the public roads. The amount is collected, in the first instance, by the council of each county and county borough, and lodged to the credit of the State in a Government account, known as the Road Fund. Apart from certain administrative charges incidental to the collection of the duty, the Government does not use any portion of the receipts from the annual duty on mechanically-propelled vehicles for general revenue purposes. By virtue of the Roads Act, 1920, no portion of the receipts can be expended otherwise than on the maintenance and improvement of roads and bridges.

The following statement sets out the expenditure each year, from State and local funds, respectively, on the maintenance and improvement of roads and bridges for the financial years 1929-30 to 1933-34 inclusive :

ROADS.

Amount allotted for year ended March 31st :

| | State funds £ | Local funds £ |
|---------------|------------------|---------------------------|
| 1929-30 | 664,188 | 1,319,207 |
| 1930-31 | 683,543 | 1,343,224 |
| 1931-32 | 937,947 | 1,388,953 |
| 1932-33 | 1,697,502 | 1,367,291 |
| 1933-34 | 748,641 | 1,313,518 (approximately) |

In addition to the foregoing, local authorities raised, during the period 1929-1934, loans amounting to £278,561 for road and bridge work. They also raised loans within the same period, amounting to £7,604, for the purchase of road plant.

As indicated in Section II above, the annual outlay by the councils on maintenance work is about £1,500,000. A portion of the amounts in the foregoing total, listed under the

head of State funds, goes in relief of the sum falling on local authorities. The contribution under this head varies from about £320,000 to £350,000 per annum. The revenue from the annual duties was supplemented in the year 1927-28 by an advance of £790,000, made by the Government on the security of the Road Fund, for the carrying-out of more extensive improvements than could be undertaken on the strength of the annual revenue from mechanically-propelled vehicles alone. From August 1932 to December 1933, the Government advanced, on the same security, a sum of £1,000,000 to carry out works on roads and bridges for the relief of unemployment. These advances must be repaid out of the annual duties collected—*i.e.*, the repayment is charged to the Road Fund.

IV.

The labour content of the various public works described above is approximately as follows: Where no bitumen, cement or asphalt is used, the labour content is approximately from 75 to 80%. This would include the preparation of local materials. Where bitumen, cement or asphalt is used, the labour content would scarcely be more than 50%, as all bitumen, cement and asphalt have to be imported. In either case, practically all the machinery required has to be imported.

V.

Had the works of road and bridge improvement described above not been carried out, the economic development of the State would have been very much handicapped. The provision of better facilities for the transport of their produce is considered to have benefited the agricultural community considerably. They have rendered possible the employment, in certain areas, of pneumatic-tyred farm vehicles, bearing double the load which they formerly carried. Moreover, due in large measure to these improvements, passenger road services and goods road services by motor-vehicles have become established since about 1926, with the result that parts of the country remote from railways are now linked up, by both passenger and goods road motor services. An effort made in previous years to establish a motor road service for the benefit of the agricultural community had to be abandoned, owing mainly to the unsuitable condition of the roads. In fact, it was found necessary, in 1925, owing to the fact that the roads were unsuitable and the burden of maintenance too onerous on the local authorities, to issue an order restricting the load carried by motor-vehicles. The work done in subsequent years has rendered heavier traffic possible, and complaint of damage occasioned to the roads thereby is now very rare. The carrying-out of the road works mentioned above secures the employment, on an average, of about 16,000 men per month on the works carried out by direct labour alone.

It is the considered opinion of the authorities that road and bridge improvement is an important element in the economic development of the State, and that, from the point of view of the State, the annual outlay provides an effective and substantial measure of employment, particularly to the rural population.

(b) RAILWAY OPERATING EQUIPMENT.

I.

The reconditioning of a train of passenger vehicles, constructed to test, under actual working conditions, an improved electric storage battery invented by Dr. James Drumm, was undertaken in 1933 and completed before the end of March 1934.

II.

The work was carried out by the Great Southern Railways Company.

III.

The cost of the work, amounting to £1,800, was provided from funds voted by “Dail Eireann” for schemes for the relief of unemployment.

IV.

The allocation of the cost was : labour, £744 ; materials and equipment, £1,056.

V.

It is considered that this comparatively small work contributed usefully to the relief of a class of railway maintenance employee which had suffered from the general depression of preceding years.

(c) LAND RECLAMATION AND IMPROVEMENT.

I. *Estate Improvement under the Land Commission.*

The annual parliamentary vote for the services of the Irish Land Commission includes a sum provided for the improvement of estates coming within the Commission's operations under the Land Purchase Acts. This provision was initiated under the Irish Land Act, 1903, and has been extended under subsequent land Acts.

Expenditure on estate improvements under the vote is incurred (1) on the improvement of existing holdings in matters of drainage, roads of access, supply of turbary, repairs and additions to buildings ; (2) on the equipment of new holdings (created on the division of untenanted land among approved allottees) with buildings (including dwelling-houses and out-offices), fences, drains, roads and turbary ; (3) on embankments, the reclamation of waste land, etc. The greater part of the money so expended is given by way of free grant ; but, where the circumstances of the benefited tenant warrant it, a portion of the expenditure is made recoverable from the tenant purchaser by way of an addition to his land purchase annuity. In this case, the period of repayment and the rate of annuity are similar to those for ordinary advances made for land purchase—in regard to lands purchased under the Land Acts 1923-1933, the rate is $4\frac{3}{4}$ % and the term of repayment approximately $66\frac{1}{2}$ years. The annuities received in respect of improvements are utilised as appropriations-in-aid of the parliamentary vote for the Land Commission.

The actual work is carried out under the supervision of Land Commission Inspectors, after the improvement schemes have been duly approved by the Land Commissioners (and, in the case of lands already vested in purchasers under the Land Purchase Acts, by the Minister for Finance also). Local labour is utilised as far as possible, the labourers working under the control of “gangers” appointed by the Land Commission. In some cases, particularly where the land concerned is of poor quality, the tenants on the lands being improved are themselves employed by the Land Commission. In the case of buildings and repairs of dwelling-houses, it is sometimes necessary to give the work out to contractors. It is difficult to estimate accurately the ratio of expenditure on wages to that on material, as this varies with the nature of the work. In the case of buildings, probably about half the cost would be for materials ; but in the case of general land improvements, the cost of materials is usually less than 10%.

Of the untenanted land acquired by the Land Commission under the Land Acts 1923-1933 for the relief of congestion, roughly about one-half has been distributed to local smallholders as additions sufficient to bring up their farms to an economic size—that is, large enough to support a family in frugal comfort. The remainder has been divided among various classes such as : Herds and labourers who have lost their employment by reason of the lands being acquired by the Land Commission ; suitable local landless men,

usually sons of small farmers; persons (or their descendants) who had previously been evicted from their holdings in the course of the land campaigns prior to enactment of land purchase legislation; and migrants who had given up their lands in other parts of the country for the relief of local congestion. The land acquired by the Land Commission for distribution is usually in the nature of large tracts which have not been worked by the owners to their full potential capacity, but power is given under the Land Acts to acquire any class of agricultural land required for the relief of congestion, subject to the payment of due compensation to the owners and to the right of certain classes of owners to demand in exchange an alternative holding, within certain limits, as part or whole of their compensation.

The policy of redistributing the land of the country so as to afford decent subsistence to the greatest possible number of working farmers has general support, as it is recognised that the best economic and social interests of the nation are served thereby.

The accounts of the Land Commission are made up in financial years ending on March 31st. The total expenditure on estate improvements (including certain miscellaneous items and supplies not strictly in the nature of actual works) during the last five years was as under :

| Year | Buildings | General improvements | Total |
|--------------------------------------|-----------|----------------------|----------|
| In year ended March 31st : | £ | £ | £ |
| 1930..... | 69,487 | 139,647 | 209,134 |
| 1931..... | 61,033 | 122,021 | 183,054 |
| 1932..... | 54,290 | 100,816 | 155,106 |
| 1933..... | 63,910 | 111,106 | 175,016 |
| 1934..... | 74,763 | 153,249 | 228,012 |
| Total for five years 1929 to 1934... | £323,483 | £626,839 | £950,322 |

The expenditure during the current year (1934-35), owing to the increase in land division, is expected to amount to about £320,000.

In addition to the normal expenditure on improvement of estates, the staff of the Land Commission have been entrusted with the disbursement of a considerable share of the various votes for the relief of unemployment and distress passed by the "Oireachtas" of the Irish Free State during the period from 1924 to 1931. Since March 31st, 1929 (but mostly in the years 1930-31 and 1931-32), a sum of approximately £134,000 has been expended by the Land Commission in relief works, mainly in the nature of the construction and repair of roads of access to turbary and to isolated homesteads, the improvement of existing roads and bridges, the execution of minor drainage schemes, and other works of public utility. These works are designed to distribute as much as possible in wages, so that the cost of materials would probably represent less than 5% of the total expenditure.

No further relief works are being allocated to the Land Commission, as relief schemes are now being administered by other Departments of State.

2. Land Reclamation.

The Land Reclamation Scheme, inaugurated in the year 1931-32, is designed to encourage the reclamation, for agricultural purposes, of land hitherto regarded as virtually useless, the property of smallholders in the congested districts.

The actual work of reclamation is carried out by the individual holders, after registration under the scheme and inspection of their lands by the officers of the Department of Agriculture. If the work is completed to the satisfaction of the Department, a grant equal to one-fourth of the total cost of reclamation (but not less than £1, nor more than

£5, per statute acre) is paid to the applicant. The maximum area in respect of which payment will be made to one applicant in any year is—except in very special circumstances—two acres.

The materials required, such as lime, sand and marl, are all available from home sources. The cost of the materials in relation to the total cost of the work varies considerably according to the nature of the land dealt with, but 25% of the total cost might perhaps be taken as representing materials, the remaining 75% representing labour.

The following table gives the total number of approved applicants, the acreage reclaimed, the average cost per acre and the amount paid in grants under the scheme during the years 1931-32, 1932-33, 1933-34 :

| Year | Number of approved applicants | Acreage reclaimed | Total amount of grants paid | Average cost per statute acre | | |
|---------------|-------------------------------|-------------------|-----------------------------|-------------------------------|----|----|
| | | | | £ | s. | d. |
| 1931-32 | 266 | 220 | 950 | 4 | 6 | 0 |
| 1932-33 | 2,402 | 1,875 | 8,032 | 4 | 6 | 0 |
| 1933-34 | 4,078 | 2,824 | 12,116 | 4 | 6 | 0 |

Apart from the value of the scheme in providing additional land in districts where acute scarcity of arable land exists, the work of reclamation has, to some extent, provided alternative employment for those migratory labourers who have, in recent years, failed to find seasonal employment in England or Scotland. As will be seen from the above figures, the acreage reclaimed annually is steadily increasing, and it is hoped that considerable benefits will follow on the extension of the scheme.

3. Improvements to Creameries.

Improvements to creameries have, since 1931, been encouraged by the Department of Agriculture by the granting of loans to co-operative creamery societies to defray part of the cost of extension and erection of chilling stores, poultry-fattening houses, egg stores and the provision of additional plant which lack of capital would otherwise have prevented them from proceeding with. The loans are free of interest and repayable in ten equal annual instalments, with penal interest on overdue instalments.

The work is, in most cases, done by contract, but some societies have had it carried out by direct labour. As the purposes for which the loans are made are various, it is difficult to make an accurate estimate of expenditure as between cost of material and cost of labour, but labour might perhaps be taken as representing from 30 to 40% of the total outlay on the work.

The following table shows the numbers of approved applicants and the amounts of the loans granted under various heads up to the present :

| Purposes | Number of approved applicants | Amount of loans £ |
|--|-------------------------------|-------------------|
| Erection, alteration and/or equipment of chilling stores for butter | 55 | 10,065 |
| Erection, equipment and initial stocking of poultry-fattening houses | 2 | 600 |
| Erection and equipment of egg stores ... | 3 | 750 |
| Sinking of wells | 3 | 650 |
| Sewage disposal | 1 | 600 |
| Manufacture of processed cheese..... | 1 | 6,000 |
| Production of sterilised tinned cream.... | 1 | 3,000 |
| Resurfacing of yards and carways at creameries | 60 | 2,555 |
| | <u>126</u> | <u>£24,220</u> |

The amount expended by the societies out of their own funds, in connection with these works, is estimated at £18,448.

The scheme has, since its inauguration, provided a considerable amount of employment of a temporary nature, inasmuch as the works detailed above—while useful and desirable in themselves—would not have been undertaken without State aid. In addition, continuous employment has been afforded to a large number of hands by the setting-up of the manufacture of processed cheese and by the provision of facilities for the production of sterilised tinned cream, the latter representing a new development in the dairying industry in this country.

(d) CANALS AND INLAND WATERWAYS, ETC.

Under this category come certain schemes controlled by the Office of Public Works, such as improvement works and defensive works against floods on certain rivers.

These operations were carried out under arterial drainage legislation enacted by the “Oireachtas”, and were financed partly by free grants made by the Central Government and partly by free grants made by local authorities, the balance of the cost being raised by means of a charge on the benefited lands.

The expenditure on arterial drainage throughout the State for the five years 1929 to 1934 was approximately £620,000, towards which the State contributed, by way of free grants, £243,000. The State also issues loans to enable the local authorities and riparian owners to provide their respective proportions of the costs.

The largest scheme of arterial drainage under construction during the period dealt with is that of the River Barrow and its tributaries, on which approximately £345,000, out of a total estimate of £550,000, was expended during the five years under review.

The programme of works for 1934-35 and 1935-36 contemplates an expenditure of about £75,000 in each year.

The execution of arterial drainage works is undertaken directly by the Commissioners of Public Works and the expenditure on labour is approximately 60% of the total cost.

(e) STATE AFFORESTATION.

I.

The following table shows the respective areas of land acquired and land planted in connection with State afforestation schemes during the past five years.

| (a) | Season | Area of land acquired (acres) | Area of land planted (acres) |
|-----|---------------|-------------------------------------|------------------------------------|
| | 1929-30 | 6,124 | 3,069 |
| | 1930-31 | 2,030 | 3,565 |
| | 1931-32 | 4,336 | 3,646 |
| | 1932-33 | 3,900 | 3,564 |
| | 1933-34 | 10,707 | 4,179 |

(b) During the current financial year, it is hoped to complete the acquisition of over 20,000 acres of land for afforestation, and, up to the present date, some 18,000 acres have been acquired. The programme of planting for the current season provides for the planting of between 5,000 and 6,000 acres of new plantations.

(c) Up to the season 1932-33, the average rate of planting had been about 3,500 acres per year, but, in that season, a scheme was approved by the Government which provided for the planting of 4,000 acres during the season 1933-34, 5,000 acres during the season

1934-35, and 6,000 acres during the season 1935-36 and each subsequent season. It is now the Government's intention to increase the annual planting programme to 10,000 acres within the next two seasons.

II.

State forestry operations are under the control of the Minister for Lands, and, in the acquisition of land for State afforestation, there are three methods adopted—namely, (a) direct purchase by agreement; (b) a long-term lease, usually for 150 years, so as to allow of two crops being grown on the land, and (c) compulsory acquisition when purchase by agreement is impracticable. Compulsory powers for the acquisition of land for State afforestation are vested in the Minister for Lands by the Forestry Acts, 1919 and 1928. In the large majority of cases, however, acquisition is by direct purchase.

III.

The moneys required for State afforestation are provided by means of an annual vote by the "Oireachtas". Particulars of the amounts voted during the past six years are as follows :

| | £ |
|---------------|---------|
| 1929-30 | 56,803 |
| 1930-31 | 59,969 |
| 1931-32 | 64,588 |
| 1932-33 | 62,015 |
| 1933-34 | 92,226 |
| 1934-35 | 121,804 |

IV.

The approximate allocation of the total amount provided is as follows :

| | % |
|--|----|
| Labour | 60 |
| Materials | 10 |
| Land acquisition and administrative expenses | 30 |

The total area planted in connection with State afforestation up to March 31st, 1934, is as follows :

| | Acres |
|--|--------|
| Total area of woodlands replanted since acquisition | 11,654 |
| Total area of new plantations established | 26,647 |
| | <hr/> |
| Total area of land planted | 38,301 |

The Government attaches considerable importance to the extension of afforestation as a means of using profitably land unsuitable for tillage or pasture and of providing employment. The extended planting operations will give immediate employment to a large number of men and the forests arising in the future will offer a permanent source of employment, particularly in the winter months, when it is most needed. The favourable climatic effects of increasing the wooded area of the country are also held in view, particularly from the point of view of affording shelter for agricultural land.

(f) PROVISION OF GRAVITATION WATER SUPPLIES AND SEWERAGE SCHEMES.

I.

(a) The responsibility for the carrying-out of waterworks and sewerage schemes rests with the local sanitary authorities, who are charged with the duty of administering the statutory enactments relating to public health.

Between 1929 and 1932, 345 such works were undertaken at a total average yearly cost of about £250,000.

(b) During the financial year 1933-34, 77 public health works were in course of execution and the total expenditure thereon is estimated at about £250,000.

(c) A further programme of public health works similar to those indicated under (a) and (b) is in contemplation. The cost is estimated at £350,000 for the present financial year (1934-35).

II.

As stated under head I, local authorities are charged with the duty of providing essential sanitary services within their respective areas, and they are empowered to borrow moneys for the financing of such works, subject to the sanction of the Department of Local Government and Public Health. Before giving sanction, the Department requires to be satisfied as to the general merits of the scheme proposed and the suitability of the plans for its execution.

III.

In the financial years ended March 31st, 1931, 1932, 1933 and 1934, the Government made available sums for the financing of works for the relief of unemployment. A sum of £300,000 was provided in 1930-31, £250,000 in 1931-32, £1,500,000 in 1932-33, and £550,000 in 1933-34. Such sums are normally met out of revenue. Many new public health works were initiated in these years and a proportion of the relief funds were allocated in aid of the execution thereof. The balance of the expenditure on public health works was met by the local authorities by way of loans advanced, in most cases, by the Government out of the Local Loans Fund, repayable over a period of twenty-five years.

IV.

The labour content of contract work on a waterworks scheme is estimated at from 47 to 50% of the cost. If indirect labour benefits resulting from the work are taken into consideration, the labour content would be about 55%. All cast-iron pipes required for such schemes are imported.

The labour content of contract work on a sewerage scheme would be about 50% where sewer-pipes are imported. The manufacture of concrete sewer-pipes in the Free State was begun in 1932, and these pipes are being increasingly utilised for sewerage schemes, with consequent benefits to home labour in the manufacture and transport of pipes, and in the work of quarrying, etc., for concrete aggregate. The calculation of these items would bring the total labour content of sewerage schemes to about 65% of the cost.

V.

The carrying-out of works of sanitary improvement is necessitated primarily by reference to public health requirements. While such works are in progress, they afford useful employment over periods of from six to twelve months. The value of such schemes as an employment factor is handicapped by the fact that they do not fit easily into a

prearranged time-programme of public works. The carrying-out of essential waterworks and sewerage schemes has a high social value. They are an important contribution towards the health of the community, and they encourage building and industrial development with consequent increase of employment.

(g) HARBOURS.

I.

(a) *Works undertaken since 1929 and completed.*

Buncrana Harbour.—Construction of :

- (1) Reinforced concrete pier 320 feet long and 30 feet wide;
- (2) Reinforced concrete wharf 200 feet long, with return berth of 80 feet;
- (3) Quay 203 feet long (retaining an area of reclaimed land about 1 acre in extent, which can be utilised for fish-curing or general harbour purposes);
- (4) Dredging the channel alongside wharf and quay 100 feet wide and 6 feet deep.

Work commenced in 1929 and completed towards end of 1933 at a cost of £30,000.

Burtonport Harbour.—Construction of new ferro-concrete pier, dredging the approach and building slip for landing and packing fish. This work was commenced in 1919 but suspended in 1920. Work was resumed in 1925 and completed in 1930 to a modified scheme at a total cost of £10,253.

Rathmullan Harbour.—Construction of :

- (1) Solid masonry pier 340 feet long and 33 feet surface width;
- (2) A pair of dolphins, each 40 feet long, joined to form a landing-berth 145 feet long;
- (3) A timber viaduct 10 feet wide and 420 feet long, connecting dolphins with masonry quay.

Work completed towards end of 1933, at a total cost of £7,900. Timber viaduct was subsequently replaced by a viaduct of reinforced concrete and the width increased to 13 feet at a cost of £8,000.

Dublin Harbour.—Constructing a new bridge, and other works consisting of re-roofing a generating-station, reclaiming lands, etc. Work completed in 1933 at a cost of £50,000.

(b) *Works undertaken since 1929 and not yet completed.*

Limerick Harbour.—Construction of a new dock and other works. This work consisted of two parts estimated to cost £84,000 and £18,000 respectively. The second part of the work, which consisted of the erection of a "gate chamber" to the western entrance, was commenced in 1934, on the completion of the first part.

Foynes Harbour.—Construction of reinforced concrete extension to west pier in substitution for existing timber extension, open extension in reinforced concrete to east jetty, an open quay or wharf in reinforced concrete connecting east jetty and west pier, and other minor improvements. Total estimated cost, £23,000. Work at present in progress.

(c) *Contemplated New Works.*

Galway Harbour.—A general improvement of the docks and dredging of approach channel to facilitate the calling at the port of transatlantic liners and other heavy draught vessels.

The Galway Harbour Commissioners are promoting a Bill to acquire the necessary powers to undertake the works. The full scheme is estimated to cost about £350,000, but it is intended, at present, only to proceed with a partial scheme estimated to cost about £150,000.

Fenit Harbour.—Construction of a new viaduct in substitution for existing viaduct, widening of east pier and widening of main pier. Total estimated cost, £94,000.

Authority to undertake this work has been sought and certain preliminary investigations completed. It is assumed that the work will commence in 1935.

Wexford Harbour.—Construction of a new approach channel with training walls, and dredging of harbour. Estimated total cost, £170,000.

The Wexford Harbour Commissioners are promoting a Bill to acquire the necessary powers to undertake these works, and it is estimated that the necessary preliminaries will be completed in time to permit of the commencement of the work in 1936.

II.

The principal commercial ports and harbours in the State are controlled by local authorities, and the direct activities of the State in regard to new works and improvements at harbours are limited. The works may be carried out by the local harbour authority at the more important harbours, or by the Commissioners of Public Works in the case of the smaller harbours, and by contract or direct labour, according to the nature and extent of the work involved, and there is no uniformity in the administrative methods by which such works are undertaken.

III.

The works mentioned above are financed partly by free grants from the central Government, by loans raised by the harbour authorities on the security of harbour revenues, or, where a harbour authority is also the local authority, on the security of local rates, or out of surplus harbour revenues. Here, again, there is no uniformity as to the methods adopted, and combination of two or more of the methods mentioned may be employed in any particular case.

In the years 1929-1934, approximately £40,000 was expended out of State funds in connection with harbour works.

IV.

The divergent nature of the works comprised under this head renders unreliable any attempt to segregate the cost into materials and labour.

V.

The works referred to above have only an indirect effect on the resumption of economic and industrial activities and are of more local than national importance. During the construction, they solve to some extent the unemployment problem in the particular area, and it is anticipated that, in course of time, these works will contribute to the general well-being to an extent fully justified by the expenditure on them.

(i) BUILDING WORK.

I. Dwelling-houses.

I.

(a) The following table shows the number of dwelling-houses completed under Government schemes during each of the years under review :

| Year ended | Number completed by private persons and public utility societies | | Number completed by local authorities | | Totals for each year | |
|--------------------------|--|----------------|---------------------------------------|----------------|----------------------|----------------|
| | In towns | In rural areas | In towns | In rural areas | In towns | In rural areas |
| March 31st: | | | | | | |
| 1930..... | 940 | 1,419 | 1,065 | 79 | 2,005 | 1,498 |
| 1931..... | 411 | 1,845 | 759 | 76 | 1,170 | 1,921 |
| 1932..... | 1,071 | 2,418 | 1,732 | 179 | 2,803 | 2,597 |
| 1933..... | 402 | 407 | 1,054 | 124 | 1,456 | 531 |
| 1934..... | 1,608 | 1,830 | 3,092 | 719 | 4,700 | 2,549 |
| Totals for five years... | 4,432 | 7,919 | 7,702 | 1,177 | 12,134 | 9,096 |

Grand total for five years : 21,230 dwellings.

(b) The following table shows the number of dwelling-houses now in course of construction under Government schemes :

| By private persons and public utility societies | | By local authorities | | Totals | |
|---|----------------|----------------------|----------------|----------|----------------|
| In towns | In rural areas | In towns | In rural areas | In towns | In rural areas |
| 1,857 | 6,531 | 2,852 | 2,263 | 4,709 | 8,794 |

Total number of dwelling-houses in course of construction : 13,503.

(c) The following table shows the number of dwelling-houses at present in contemplation under Government schemes :

| By local authorities | Towns | Rural areas |
|--|--------|-------------|
| Number of houses for which tenders have been accepted | 670 | 3,115 |
| Number of houses for which tenders have been invited | 2,246 | 1,280 |
| Number of houses for which sites have been acquired and plans approved . | 4,537 | 1,962 |
| Number of houses in other schemes at present being prepared | 3,506 | 2,337 |
| Total... | 10,959 | 8,694 |

Total number of dwelling-houses at present in contemplation : 19,653.

Summary : Dwelling-houses :

| | |
|-------------------------------------|--------|
| i. (a) Completed | 21,230 |
| (b) In course of construction | 13,503 |
| (c) Contemplated | 19,653 |
| Total.. | 54,386 |

II.

The State does not engage directly in the actual building of houses. This work is undertaken under the control of the State authorities by private persons, public utility societies and local authorities, with the aid of loans and subsidies provided by the State. The houses provided by local authorities in towns and rural areas and the houses provided by private persons and public utility societies in towns are mainly built by contract. In a few instances, direct labour methods have been used, but, generally, the contract method has been found more satisfactory. The houses provided by private persons and public utility societies in rural areas are built mainly by direct labour, as they are largely intended for occupation by small farmers and rural workers who apply their own labour in the building, so as to keep down the capital cost.

A condition attaching to the payment of State subsidies to local authorities is that the houses be let at rents approved of by the State authorities. In settling these rents, the State insists that some annual contribution be made from the local authorities' resources during the period fixed for repayment of the loan raised for the building of the houses. The annual outgoings of the local authority in respect of the houses are made up of loan repayment, insurance, maintenance charges, collection and other minor administration costs. These outgoings are, therefore, met by the tenants' rents, the State subsidy and a contribution from the local authority's funds. The local authority's contribution is raised by rating on their area.

Local authorities in towns provide houses for the working-classes only; and those in rural areas, for rural workers only. Public utility societies, generally bodies registered under the Industrial and Provident Societies Acts, whose profits are limited to 5%, may obtain State subsidies for the provision of houses in towns, irrespective of the class for whom the houses are intended; but in rural areas, such societies are given State subsidies for the provision only of houses for small farmers and rural workers. In all instances, however, the total floor area of the house measured on all floors is restricted to 1,250 square feet.

Any private person building a dwelling-house, either for his own occupation or as a speculation, may obtain a State subsidy, but larger subsidies are paid to small farmers and rural workers building houses for their own occupation. State subsidies are also paid to these classes for the reconstruction of their own dwellings.

Local authorities in towns operate, so far as the erection of dwelling-houses is concerned, under the Housing of the Working-Classes Acts. This code also empowers both town and rural authorities to secure the demolition of unhealthy houses. In rural areas, local authorities are empowered by the Labourers Acts to provide houses and plots of land (usually one acre in extent) for rural workers.

These two codes enable local authorities to acquire land compulsorily for the provision of houses (and plots in rural areas).

The power of the State to pay subsidies is conferred by the Housing Act, 1929, for houses completed up to the year ended March 31st, 1932, and by the Housing (Financial and Miscellaneous Provisions) Act, 1932, for houses since completed, under construction and at present in contemplation.

Power to local authorities to advance loans to private persons for the purchase or erection of houses for their own occupation is contained in the Small Dwellings Acquisition Acts.

III.

In a few cases, local authorities have raised housing loans in the open market and, in many cases, private persons apply their own capital in the building of houses for themselves; but, generally speaking, the capital cost of the national housing programme is

provided by the State out of the Local Loans Fund. State loans are made direct to local authorities for building schemes. Loans to private persons providing houses for their own occupation are made by the State through the intermediary of the local authorities.

State loans for housing are repayable within a period of thirty-five years by an annuity to cover principal and interest.

Under the Housing Act, 1929, State subsidies took the form of cash grants ranging from £45 to £60. Under the Housing (Financial and Miscellaneous Provisions) Act, 1932, which applies to houses completed since April 1st, 1932, State subsidies are subject to the following maxima :

(a) To local authorities providing houses in towns to replace unhealthy houses : 66 $\frac{2}{3}$ % of the annual loan charges.

(b) To local authorities providing houses in towns for persons other than those displaced from unhealthy houses : 33 $\frac{1}{3}$ % of the annual loan charges.

(c) To local authorities providing houses in rural areas : 60% of the annual loan charges.

(d) To public utility societies providing houses in towns for letting at rents approved of by the State authorities : a cash grant of £100 per house provided the local authority concerned agrees to give a supplemental cash grant of £50.

(e) To private persons and public utility societies providing houses in urban areas without restriction as to sale or letting : a cash grant of £50.

(f) To small farmers providing houses in rural areas for their own occupation : a cash grant of £60 or £70, depending on value of farm.

(g) To rural workers providing houses for their own occupation : a cash grant of £70.

(h) To public utility societies providing houses in rural areas for small farmers : a cash grant of £70 or £80, depending on value of farm.

(i) To public utility societies providing houses in rural areas for rural workers : £80.

(j) To private persons in rural areas other than small farmers and agricultural labourers : £45.

(k) To small farmers and rural workers for the reconstruction of their own houses : £40.

In addition, two-thirds of the rates are remitted for a period of seven years on the houses in categories (e) to (j) inclusive, while in the case of reconstructed houses, the valuation on which rates are assessed is not increased, as a result of the reconstruction, for a period of seven years. Rates reliefs are not given in respect of houses in categories (a) to (d), the local authorities being required to contribute to these houses in the form of an annual loss in letting in the case of (a), (b) and (c), and in the form of a supplemental cash grant in the case of (d).

Loans under the Small Dwellings Acquisition Acts to persons purchasing or erecting houses for their own occupation are limited to 90% of the market value of the houses, and the market value must not exceed £1,000 per dwelling.

Loans to local authorities are secured on the local rates; loans to private persons are secured by mortgage on the house in respect of which the loan is issued.

The annual expenditure of the State in subsidies is charged to the ordinary budget of the State.

IV.

The cost of the average working-class house in a town is divided generally about 45% materials and 55% labour. In rural areas, the percentage cost of materials increases, even for contract work (labour being cheaper); but in the case of most of the houses being built or reconstructed by small farmers and rural workers, the bulk of the cost is for materials, as the persons building or reconstructing the houses apply their own labour to the work.

For houses completed up to the year ended March 31st, 1932, national materials represented about 30% of the total value of materials used. Since then, the percentage of national materials has increased to about 45%.

V.

The passage into law of the Housing (Financial and Miscellaneous Provisions) Act, 1932, marked the initiation of a special national housing drive, under which it is hoped to secure the provision of the State's total housing needs within a period of ten years. The full housing need was estimated in 1932 at about 75,000 houses, and from the progress since made (see Section I of this category), it is clear that the programme will be completed within the allotted period.

This housing programme is an important part of the Government's plan for national economic reconstruction. It is hoped, by means of it, to build up a sound national social structure seated in the homes of the people.

The working-classes in towns have been hindered by high rents and unhealthy homes in their efforts to bring up their families in a way that would enable them to become fully self-supporting. The provision of decent homes at low rents (combined with increased facilities for education—including vocational training) will overcome this handicap and produce in the people the healthy civic spirit essential to the fulfilment of the Government's aims to create a wholesome national social system. The rural worker, who depends largely for his livelihood on the casual hire of his labour, will, when provided with a house and plot at a low rent, become an economic unit in the rural community. The provision of these houses and plots in rural areas will also check the migration of rural workers to the towns and hold labour available for the farming community at reasonable cost.

The housing programme has enabled the development of native industry in the production of building materials and appliances. As shown in Section IV of this memorandum, the percentage of national materials used in house-building has increased from 30% of the whole in 1932 to 45% of the whole in 1934. This development is still in its early stages.

It is hoped that the clearance of slums and unhealthy houses and the provision of proper homes for the people will, in time, greatly reduce the national bill for public health services.

The present housing activity has provided considerable employment for both skilled and unskilled labour. It is a requirement attaching to the payment of State subsidies that trade-union wages and conditions of employment be observed. The limit of activity will be reached when all available skilled labour is absorbed. This peak will be reached in the early years of the ten-year programme; and a gradual tapering-off to the end of the period will enable the labour so released to be absorbed into other channels opened by the Government's general plan for industrial development.

2. *Public Buildings.*

During the years 1929-1934, many large administrative buildings, undertaken during the reconstruction period following the establishment of the Irish Free State, were completed.

The expenditure in the period under review on administrative buildings, including Government offices, military and police barracks, post offices (exclusive of the telegraph, telephone and wireless broadcasting installations which are provided by the Post Office authorities), employment exchanges, etc., was about £1,025,000, all of which was provided from State funds. In addition, about £600,000 was expended on the erection and improvement of national (primary) schools, towards which contributions amounting to about £130,000 were made from local sources.

The expenditure on new administrative buildings in 1934-35 will be approximately £150,000, while the expenditure on school buildings will be about £155,000, of which about £35,000 will be provided from local sources.

The programme for 1935-36 contemplates an expenditure of over £300,000 on

administrative buildings and £260,000 on national school buildings, of which latter figure £60,000 will be contributed from local sources.

The major portion of the expenditures mentioned above was incurred on works undertaken by contract under Government supervision. It is estimated that the proportion of labour costs in these building schemes amounts to about 55 % of the total cost.

(j) ELECTRIC STORAGE BATTERY DEVELOPMENT.

I.

A company was formed under Government auspices to develop and exploit an improved electric storage battery, the invention of Dr. James Drumm. Its application to railway locomotion was first proceeded with, and an arrangement was made with the Great Southern Railways Company under which some passenger vehicles were adapted and equipped and put into operation for suburban traffic. Attention has also been devoted to road locomotion and other uses of the battery.

II.

The entire development and exploitation is carried on by the company.

III.

Working capital amounting to £71,913 was furnished by the Government from moneys provided by "Dail Eireann". Of this amount, about £16,000 was furnished since March 1934.

IV.

Information is not available at present on which an allocation of the company's expenditure as between labour and other costs might be made, but it may be taken that the direct labour content of expenditure up to the present was low.

V.

The company's operations have already been responsible for appreciable activity in the opening-up of employment new to the Irish Free State, and it is anticipated that the future advantages to be derived therefrom, and from the promotion of the use of electrical energy produced within the State, will be substantial.

(m) OTHER WORKS.

I.

Mines and Minerals.

The following is a summary of the mineral exploration and development assisted since the beginning of the year 1929 and completed before March 31st, 1934.

| Mineral | Number of cases | |
|-----------------------|--------------------|--------------------|
| | Classification (m) | Classification (a) |
| Clay | 2 | |
| Coal | 1 | |
| Glass sand | 1 | |
| Limestone | 6 | |
| Marble | 1 | |
| Phosphate | 1 | |
| Roads of access | | 3 districts |
| Sandstone | 1 | |
| Silica | 2 | |
| Slate | 7 | |

(b) The following works were in course of execution at March 31st, 1934 :

| Mineral | Number of cases | |
|----------------------|--------------------|--------------------|
| | Classification (m) | Classification (a) |
| Barytes..... | 1 | |
| Brick-clay..... | 2 | |
| Limestone..... | 1 | |
| Phosphates..... | 1 | |
| Roads of access..... | | 1 district |
| Slate..... | 4 | |
| Sulphur..... | 1 | |

(c) The following works are in contemplation (in April 1934) :

| Mineral | Number of cases | |
|----------------------|--------------------|--------------------|
| | Classification (m) | Classification (a) |
| Brick-clay..... | 1 | |
| Granite..... | 1 | |
| Limestone..... | 3 | |
| Marble..... | 1 | |
| Pipe-clay..... | 1 | |
| Roads of access..... | | 2 districts |
| Slate..... | 9 | |

The nature of the work is the removal of overburden, the clearing away of debris, the construction or improvement of means of ingress to and egress from the deposit and, generally, the proving of the deposit and facilitating its working.

II.

In every case, the works are carried out by private persons or firms who are given a grant for the purpose from the State. These parties must satisfy the Department of Industry and Commerce that they possess the necessary title to work the deposits over the areas in question. In addition, they must carry out only the types of work specified by the Department and they must recruit any labour additional to their normal staffs from the local offices of the Department.

III.

These grants are charged against the ordinary budget of the State. Operations are commenced by the authorisation of the Department and, in every case, reimbursement is made fortnightly to the grantees on receipt from them of properly vouched claims. Any expenditure over and above the amounts of the grants is borne by the grantees. The total amount of such grants for the period under review was £25,000.

IV.

On most of the works, the expenditure is wholly in respect of labour, but, in special circumstances, a maximum of 15% is allowed towards the costs of materials and equipment.

V.

The works involved have a direct value in providing for the relief of unemployment in the districts concerned, and this aspect of the matter is one of the factors considered in determining the question of giving these grants. The indirect value is in the possible development of mineral deposits following the exploratory work covered by the grants. The Department is satisfied that, on the whole, there has been substantial development as a result of these operations.

Miscellaneous.

A number of other works for the relief of unemployment, costing about £350,000, were undertaken in the five years 1929-1934. The majority of these works were carried out since 1932. They consisted, principally, of minor works for the benefit of the poorer rural areas of the State, such as accommodation roads, clearance of drains, erection of small bridges, turbary development, fishery slipways, etc.

In 1934-35, the expenditure on works of this character will amount to, approximately, £180,000. Further expenditure the amount of which has not yet been determined is contemplated during 1935-36.

With the exception of some trivial local contributions, the entire cost of these works is borne from State funds.

Labour charges account for about 85% of the expenditure on these works.

* * *

In addition to the schemes of public works which have been described in detail above, a number of schemes involving considerable expenditure and providing a appreciable measure of relief for the prevailing unemployment have been undertaken, in pursuance of the Government's policy, for the development of the peat resources of the country, the production of sugar from sugar beet, and the production of industrial alcohol.

POLAND.

[*Translation from the Polish.*]

SUMMARY.

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INTRODUCTION.

The present report comprises a statement of the activities of the Labour Fund functioning as a public institution for the execution of public works as a remedy for unemployment, together with a list of the works undertaken by the various branches of the State administration, in the order prescribed in the questionnaire.

It has obviously not always been possible to give complete replies, particularly as certain problems, such as the distribution of expenditure between materials and labour, frequently present considerable difficulties. In the main, however, the plan of the questionnaire has been followed in alluding to the various works.

The report refers to certain categories of works (water supply and water mains, electrification, gas supply, etc.), in so far as these have been carried out principally by autonomous territorial bodies. For such works, certain data will be found for the years 1933-34 and 1934-35 in the report, attached hereto, of the Labour Fund, which helps to finance the works carried out by these autonomous territorial bodies. Another source of information is the table of approximate credits for works in the extraordinary budgets of the communal unions (after deducting the sums for the repayment of debts and the

purchase of lands and buildings, and also, from 1933-34, of sums to cover the deficit of previous years).

| | Millions of zloty |
|---------------|-------------------|
| 1929-30 | 357.1 |
| 1930-31 | 259.5 |
| 1931-32 | 125.0 |
| 1932-33 | 86.0 |
| 1933-34 | 75.0 |
| 1934-35 | 70.0 |
| Total... | 972.6 |

As regards the report as a whole, certain sums may appear both in the report on the Labour Fund and in the list of the various categories of works; the Labour Fund, indeed, frequently finances works undertaken by State administrations.

PUBLIC WORKS CARRIED OUT WITH THE ASSISTANCE OF THE LABOUR FUND.

I. Object and Scope of the Labour Fund.

The Labour Fund is a State institution, created in virtue of the Law of March 16th, 1933, which provides that :

“ The purpose of the Labour Fund is to supply work or means of livelihood for persons without work and without other resources, chiefly by the carrying-out of public works or works of public utility. ”

The same law provides also that :

“ The Labour Fund shall achieve its object :

“ (a) By collecting and distributing funds and contributions in kind;

“ (b) By taking the initiative and collaborating in the promotion of schemes for public works or works of public utility, and also of any other works of considerable importance from the standpoint of the reduction of unemployment;

“ (c) By financing works;

“ (d) By taking measures to increase the number of persons having an occupation;

“ (e) By taking measures of all kinds to procure an independent livelihood for the persons mentioned in Article 1, and by collaborating in such measures;

“ (f) By supplying, so far as this is indispensable, either directly or through the social organisations, immediate assistance for the persons mentioned in paragraph 1 who are not in receipt of any other form of assistance.”

Public works are thus the chief but not the sole object of this institution. They absorbed 58% of the total expenditure for the budgetary year 1933-34, and 78% of such expenditure during the first eleven months of 1934-35.

Apart from public works, the Labour Fund has given immediate relief in the form of food and fuel to the most destitute unemployed persons and their families; it has organised the work of intellectual workers, created individual gardens for the unemployed, etc. These activities have, however, been of secondary importance, and are declining.¹

¹ See Table II.

II. *Methods of Financing.*

The financial resources of the Labour Fund were as follows :

- (1) A levy of 2% on the wages of physical and intellectual workers, paid half by the workers and half by the employers (58% of the total revenue in 1933-34);
- (2) Contributions in kind from the urban communes and autonomous district unions (6% of the revenue in 1933-34);
- (3) Various consumption taxes (10% of the revenue);
- (4) Contribution by the State (22% of the revenue).

The other sources of revenue were of lesser importance.¹

With these resources, the Labour Fund financed public works executed by State institutions or autonomous administrations, and also by private undertakings with the participation of public administrations (of the State or of the autonomous bodies).

In 1933-34, State institutions received 32% of the credits paid by the Labour Fund, institutions belonging to 'autonomous bodies 61%, and undertakings with the participation of public administrations 7%. The credits were given in the form of advances or subsidies. During the first year of the Labour Fund's activities, subsidies represented only 12% of the amounts of the contracts concluded; the following year, the proportion increased considerably. Credits for productive works, such as water-supply and gas-supply works, electric power stations, etc., were, as a rule, in the form of advances, whereas works not producing direct revenue—such as roads—were carried out with the help of subsidies.

III. *Methods of executing the Works.*

The Labour Fund does not carry out works directly; it finances them, co-operates in drawing up the programme of State works carried out with its financial assistance, co-ordinates and, to some extent, directs the activities of the institutions attached to the autonomous administrations responsible for their execution; lastly, it exercises supervision over the works, so as to ensure that they are in conformity with the objects of the Labour Fund, those objects being set forth in the contracts concluded between the Labour Fund and the institutions in receipt of credits from the latter. First among such objects is the provision of work for unemployed persons. The Labour Fund sees, first and foremost, that the plan of public works is so framed as to reduce unemployment as far as possible. The works are accordingly carried out, in the main, in centres in which unemployment is most acute.

The works are carried out either directly by the authorities or under individual contract by the parties in receipt of credits—that is to say, by State institutions and autonomous administrations and by undertakings in which the public administrations are represented.

IV. *Nature of the Works.*

The Labour Fund executes works the choice of which is determined by reference to the economic objects pursued by those in receipt of credits, such objects being subject to the scrutiny of the Labour Fund and also to their influence on the labour market (in particular, the proportion represented by labour in the cost of construction) and the possibility of mobilising, for the financing of any given work by the Labour Fund, either the capital of the Fund itself or capital derived from other sources.

To sum up, during the year 1933-34,² roads and bridges absorbed 31% of the sums

¹ See Table I.

² See Tables III, A and B.

expended by the Labour Fund; railways and tramways, 9%; waterways and river ports, 5%; improvement works, 16%; water supply and water mains, electrification, and gas supply, 22%; construction of public buildings and dwellings, 14%.

The sum allocated for metalled roads, streets and bridges is increasing yearly; in 1934-35, it already represented 36% of the total contracts concluded; according to the plan, it will amount to 46% for 1935-36. The sum allocated to waterways is also on the increase (7% in 1934-35, 14% in 1935-36). On the other hand, there is a drop in the amount allocated to railways and tramways (6% in 1934-35 and 2% in 1935-36) and public utility works (19% in 1934-35 and 11% in 1935-36). There has also been a drop in the amount allocated for buildings (15% in 1934-45 and 9% in 1935-36).

*V. Employment of Labour, Distribution of Expenditure.*¹

The works executed with the financial assistance of the Labour Fund in 1933-34 represented 9.8 million working-days; in 1934-35, increased funds permitted of employing more labour, representing during the first eleven months 14.6 million working-days. For the whole year, the labour employed will probably represent 15 million working-days.

In the expenditure on works executed by the Labour Fund, labour represents 48%. The expenditure on labour was heavier in fundamental improvements and the correction of waterways (73%), the construction of dwellings (54%) and railway construction (39%); it was particularly low in electrification works (13%) and in gas-supply works (8%).

The extent to which any given work was financed by the Labour Fund depended chiefly on the proportion of expenditure on labour, as the Fund, in principle, only finances the employment of unemployed persons and covers the expenditure on labour, granting credits for materials in proportion to the expenditure on labour. In principle, its contribution towards expenditure on material must not exceed 30%. Departures from this rule were admitted only in exceptional cases. The bulk of the expenditure on material was covered, by means of other resources, by those in receipt of credits.

The technical results are shown in Tables VI, A and B, and VII.

¹ See Tables IV, A and B, and V.

Table I.
REVENUE OF THE LABOUR FUND.

| Source | Estimated revenue | | Actual revenue | | | | | |
|--|-----------------------|---------|------------------------|--------------------|----------------------------|--------------------|--------------------------|--------------------|
| | 1933-34 | 1934-35 | Budgetary year 1933-34 | | From I.IV.1933 to 28.II.34 | | From I.IV.34 to 28.II.35 | |
| | In thousands of zloty | | In thousands of zloty | % of total revenue | In thousands of zloty | % of total revenue | In thousands of zloty | % of total revenue |
| | | | | | | | | |
| 1. Tax on private incomes: | | | | | | | | |
| (a) Of workers and workshops ¹ | 57,000 | 58,800 | 51,132 | 57.9 | 42,747 | 56.7 | 51,934 | 52.9 |
| (b) Other sources | 1,160 | 1,160 | 656 | 0.7 | 556 | 0.7 | 885 | 0.9 |
| Total | 58,160 | 59,960 | 51,788 | 58.6 | 43,303 | 57.4 | 52,819 | 53.8 |
| 2. Tax on income of autonomous administrations | 8,500 | 8,500 | 5,706 | 6.5 | 5,027 | 6.7 | 4,617 | 4.7 |
| 3. Tax on consumption ² | 4,700 | 5,535 | 8,668 | 9.8 | 7,279 | 9.7 | 9,147 | 9.3 |
| 4. Contribution from the State Treasury | 20,000 | 29,900 | 19,172 | 21.7 | 17,573 | 23.3 | 28,752 | 29.3 |
| 5. Other sources of revenue ³ | 8,640 | 8,215 | 3,004 | 3.4 | 2,197 | 2.9 | 2,790 | 2.9 |
| Total | 100,000 | 112,110 | 88,338 | 100.0 | 75,379 | 100.0 | 98,125 | 100.0 |

¹ 2% of the income of physical and intellectual workers, paid half by the workers and half by the establishments employing them.

² Sugar, beer, electric-light bulbs, gas, rent, foodshops and places of amusement, "pari mutuel".

³ Refund of credits, interest on advances, extraordinary revenue.

Table II.
EXPENDITURE OF THE LABOUR FUND.

| Object | Estimated expenditure | | Actual expenditure | | | | | |
|---|-----------------------|---------|------------------------|------------------------|----------------------------|------------------------|--------------------------|------------------------|
| | 1933-34 | 1934-35 | Budgetary year 1933-34 | | From I.IV.1933 to 28.II.34 | | From I.IV.34 to 28.II.35 | |
| | In thousands of zloty | | In thousands of zloty | % of total expenditure | In thousands of zloty | % of total expenditure | In thousands of zloty | % of total expenditure |
| | | | | | | | | |
| Administration | 88 | 450 | 279 | 0.3 | 224 | 0.3 | 378 | 0.4 |
| Public works | 50,000 | 75,865 | 49,891 | 58.3 | 43,194 | 58.6 | 71,697 | 78.3 |
| Special measures ¹ | 2,000 | 7,735 | 1,413 | 1.6 | 634 | 0.8 | 3,555 | 3.9 |
| Urgent relief (food and fuel) | 35,000 | 25,860 | 32,088 | 37.5 | 28,778 | 39.1 | 14,900 | 16.3 |
| Financial outlay | 100 | 2,180 | 1,461 | 1.7 | 863 | 1.2 | 933 | 1.0 |
| Other expenditure | — | 20 | 522 | 0.6 | 5 | — | 43 | 0.1 |
| Reserve | 12,712 | — | — | — | — | — | — | — |
| Total | 100,000 | 112,110 | 85,654 | 100.0 | 73,698 | 100.0 | 91,506 | 100.0 |

¹ Employment of intellectual workers, organisation of gardens for unemployed persons, professional re-adaptation of unemployed persons, etc.

Table III.
FINANCING OF PUBLIC WORKS.

Allocation of Credits.

A. TOTAL WORKS.

| Nature of works | Contracts concluded | | Paid to recipients of credits | | Paid by recipients for works | | Contracts concluded | | Estimates for | | | | | | | |
|---|--|-------|-------------------------------|-------|------------------------------|-------|--|-------|-----------------------|-------|------------|-----|---------|-----|-----|-----|
| | In 1933-34 | | | | | | | | | | In 1934-35 | | 1935-36 | | | |
| | For an amount of (in thousands of zloty) | % | In thousands of zloty | % | In thousands of zloty | % | For an amount of (in thousands of zloty) | % | In thousands of zloty | % | | | | | | |
| 1. Roads and bridges : | | | | | | | | | | | | | | | | |
| (a) Paved roads and bridges | 11,555 | 22.6 | 11,469 | 23.0 | 9,993 | 24.3 | 22,651 | 28.8 | 28,775 | 42.4 | | | | | | |
| (b) Road surfaces..... | 3,948 | 7.7 | 3,937 | 7.9 | 3,379 | 8.2 | 5,467 | 7.0 | 2,408 | 3.5 | | | | | | |
| Total... | 15,503 | 30.3 | 15,406 | 30.9 | 13,372 | 32.5 | 28,118 | 35.8 | 31,183 | 45.9 | | | | | | |
| 2. Railways and tramways : | | | | | | | | | | | | | | | | |
| (a) Railways | 3,685 | 7.2 | 3,632 | 7.3 | 3,099 | 7.5 | 4,505 | 5.7 | 1,170 | 1.7 | | | | | | |
| (b) Tramways..... | 1,190 | 2.3 | 989 | 2.0 | 976 | 2.4 | 175 | 0.2 | — | — | | | | | | |
| Total... | 4,875 | 9.5 | 4,621 | 9.3 | 4,075 | 9.9 | 4,680 | 5.9 | 1,170 | 1.7 | | | | | | |
| 3. Waterways and ports..... | 2,354 | 4.6 | 2,355 | 4.7 | 2,138 | 5.2 | 5,823 | 7.4 | 9,607 | 14.2 | | | | | | |
| 4. Fundamental improvements | 8,047 | 15.7 | 8,047 | 16.1 | 8,501 | 20.6 | 8,212 | 10.4 | 9,944 | 14.7 | | | | | | |
| 5. Water-supply work and water mains..... | 9,462 | 18.6 | 10,931 | 21.8 | 6,259 | 15.2 | 10,613 | 13.5 | 7,368 | 10.9 | | | | | | |
| 6. Electrification | 726 | 1.4 | | | | | | | | | 589 | 1.4 | 1,207 | 1.5 | 365 | 0.5 |
| 7. Gas supplies..... | 923 | 1.8 | | | | | | | | | 854 | 2.1 | 3,061 | 3.9 | — | — |
| 8. Construction : | | | | | | | | | | | | | | | | |
| (a) Public buildings..... | 4,803 | 9.4 | 4,486 | 9.0 | 2,217 | 5.4 | 5,351 | 6.9 | 875 | 1.3 | | | | | | |
| (b) Dwelling-houses ¹ | 2,906 | 5.7 | 2,636 | 5.3 | 2,096 | 5.1 | 6,504 | 8.3 | 5,602 | 8.2 | | | | | | |
| Total... | 7,709 | 15.1 | 7,122 | 14.3 | 4,313 | 10.5 | 11,855 | 15.2 | 6,477 | 9.5 | | | | | | |
| 9. Other works..... | 1,514 | 3.0 | 1,409 | 2.9 | 1,070 | 2.6 | 5,108 | 6.4 | 1,746 | 2.6 | | | | | | |
| General total... | 51,113 | 100.0 | 49,891 | 100.0 | 41,171 | 100.0 | 78,677 | 100.0 | 67,860 | 100.0 | | | | | | |

B. WORKS EXECUTED BY BODIES OTHER THAN THE STATE (AUTONOMOUS ADMINISTRATIONS; PRIVATE UNDERTAKINGS WITH PARTICIPATION OF PUBLIC ADMINISTRATIONS).

| | | | | | | | | | | | | | |
|---|--------|-------|--------|-------|--------|-------|--------|-------|--------|-------|--|--|--|
| 1. Roads and bridges : | | | | | | | | | | | | | |
| (a) Paved roads and bridges | 6,528 | 18.5 | 6,443 | 18.7 | 5,426 | 21.0 | 5,818 | 11.8 | 10,025 | 41.6 | | | |
| (b) Road surfaces..... | 3,949 | 11.1 | 3,936 | 11.5 | 3,379 | 13.1 | 4,551 | 9.2 | | | | | |
| Total... | 10,477 | 29.6 | 10,379 | 30.2 | 8,805 | 34.1 | 10,369 | 21.0 | 10,025 | 41.6 | | | |
| 2. Railways and tramways : | | | | | | | | | | | | | |
| (a) Railways | 383 | 1.1 | 330 | 0.9 | 250 | 1.0 | 1,860 | 3.8 | 1,170 | 4.9 | | | |
| (b) Tramways..... | 1,190 | 3.4 | 989 | 2.9 | 587 | 2.3 | 160 | 0.3 | — | — | | | |
| Total... | 1,573 | 4.5 | 1,319 | 3.8 | 837 | 3.3 | 2,020 | 4.1 | 1,170 | 4.9 | | | |
| 3. Waterways and ports..... | — | — | — | — | — | — | 1,875 | 3.8 | — | — | | | |
| 4. Fundamental improvements | 4,186 | 11.8 | 4,186 | 12.2 | 4,008 | 15.5 | 2,505 | 5.1 | 2,321 | 9.6 | | | |
| 5. Water-supply work and water mains..... | 9,462 | 26.7 | 9,283 | 27.0 | 6,260 | 24.3 | 10,540 | 21.4 | 7,368 | 30.6 | | | |
| 6. Electrification | 726 | 2.1 | 726 | 2.1 | 589 | 2.3 | 2,940 | 6.0 | 365 | 1.5 | | | |
| 7. Gas supplies..... | 323 | 0.9 | 323 | 0.9 | 254 | 1.0 | 513 | 1.0 | — | — | | | |
| 8. Construction : | | | | | | | | | | | | | |
| (a) Public buildings..... | 4,803 | 13.6 | 4,677 | 13.6 | 2,217 | 8.6 | 5,220 | 10.6 | 475 | 2.0 | | | |
| (b) Dwelling-houses ¹ | 2,905 | 8.2 | 2,636 | 8.0 | 2,095 | 8.1 | 6,268 | 12.7 | 603 | 2.5 | | | |
| Total... | 7,708 | 21.8 | 7,313 | 21.6 | 4,312 | 16.7 | 11,488 | 23.3 | 1,078 | 4.5 | | | |
| 9. Other works..... | 917 | 2.6 | 867 | 2.2 | 720 | 2.8 | 7,102 | 14.3 | 1,746 | 7.3 | | | |
| General total... | 35,372 | 100.0 | 34,396 | 100.0 | 25,785 | 100.0 | 49,352 | 100.0 | 24,073 | 100.0 | | | |

¹ Including the adaptation of building lands.

Table IV.

EXECUTION OF WORKS CARRIED OUT WITH THE ASSISTANCE OF THE LABOUR FUND
IN 1933-34.

A. TOTAL WORKS.

| Nature of works | Cost of works | | | | | Employment of labour | |
|--|-----------------------|----------------------------------|-----------------------|-----------------|-----------------------------|----------------------|---|
| | Total cost | Participation of the Labour Fund | | Labour | | | % of cost of labour with relation to participation of the Labour Fund |
| | In thousands of zloty | % of total cost | In thousands of zloty | % of total cost | Working-days (in thousands) | | |
| 1. Roads and bridges : | | | | | | | |
| (a) Paved roads and bridges..... | 19,250 | 9,993 | 51.9 | 10,317 | 53.6 | 103.2 | 3,004 |
| (b) Road surfaces | 4,727 | 3,379 | 71.5 | 2,715 | 57.4 | 80.3 | 735 |
| Total... | 23,977 | 13,372 | 55.8 | 13,032 | 54.4 | 97.5 | 3,739 |
| 2. Railways and tramways : | | | | | | | |
| (a) Railways | 10,228 | 3,099 | 30.3 | 3,953 | 38.6 | 127.6 | 948 |
| (b) Tramways | 1,693 | 976 | 57.6 | 481 | 28.4 | 49.3 | 79 |
| Total... | 11,921 | 4,075 | 34.2 | 4,434 | 37.2 | 108.8 | 1,027 |
| 3. Waterways and ports..... | 2,731 | 2,138 | 78.3 | 1,990 | 72.8 | 93.1 | 584 |
| 4. Fundamental improvements..... | 11,869 | 8,501 | 71.6 | 8,682 | 73.1 | 102.1 | 2,537 |
| 5. Water-supply work and water mains | 9,155 | 6,259 | 68.4 | 2,903 | 31.7 | 46.4 | 760 |
| 6. Electrification | 1,038 | 589 | 56.7 | 132 | 12.7 | 22.4 | 29 |
| 7. Gas supplies..... | 3,475 | 854 | 24.5 | 284 | 8.2 | 33.3 | 56 |
| 8. Construction : | | | | | | | |
| (a) Public buildings | 5,703 | 2,217 | 38.9 | 1,899 | 33.3 | 85.7 | 411 |
| (b) Dwelling-houses ¹ | 2,926 | 2,096 | 71.6 | 1,589 | 54.3 | 75.8 | 374 |
| Total... | 8,629 | 4,313 | 50.0 | 3,488 | 40.4 | 80.9 | 785 |
| 9. Other works..... | 1,987 | 1,070 | 53.9 | 965 | 48.6 | 90.2 | 259 |
| General total... | 74,782 | 41,171 | 55.0 | 35,910 | 48.0 | 87.2 | 9,776 |

B. WORKS EXECUTED BY BODIES OTHER THAN THE STATE (AUTONOMOUS ADMINISTRATIONS;
PRIVATE UNDERTAKINGS WITH PARTICIPATION OF PUBLIC ADMINISTRATIONS).

| | | | | | | | |
|--|--------|--------|------|--------|------|-------|-------|
| 1. Roads and bridges : | | | | | | | |
| (a) Paved roads and bridges..... | 10,811 | 5,426 | 50.2 | 5,309 | 49.1 | 97.8 | 1,483 |
| (b) Road surfaces | 4,727 | 3,379 | 71.4 | 2,715 | 57.4 | 80.3 | 734 |
| Total... | 15,538 | 8,805 | 56.7 | 8,024 | 51.6 | 91.1 | 2,217 |
| 2. Railways and tramways : | | | | | | | |
| (a) Railways | 619 | 250 | 40.4 | 282 | 45.6 | 112.8 | 80 |
| (b) Tramways | 2,693 | 587 | 21.8 | 480 | 17.8 | 81.8 | 80 |
| Total... | 2,312 | 837 | 36.2 | 762 | 33.0 | 91.0 | 160 |
| 3. Waterways and ports..... | — | — | — | — | — | — | — |
| 4. Fundamental improvements..... | 5,799 | 4,008 | 69.1 | 3,951 | 68.1 | 98.6 | 1,104 |
| 5. Water-supply work and water mains | 9,155 | 6,260 | 68.4 | 2,902 | 31.7 | 46.4 | 760 |
| 6. Electrification | 1,038 | 589 | 56.7 | 131 | 12.6 | 22.2 | 29 |
| 7. Gas supplies..... | 271 | 254 | 93.7 | 63 | 23.2 | 24.8 | 10 |
| 8. Construction : | | | | | | | |
| (a) Public buildings | 5,703 | 2,217 | 38.9 | 1,900 | 33.3 | 85.7 | 410 |
| (b) Dwelling-houses ¹ | 2,926 | 2,095 | 71.6 | 1,590 | 54.3 | 75.9 | 374 |
| Total... | 8,629 | 4,312 | 50.0 | 3,490 | 40.4 | 80.9 | 784 |
| 9. Other works..... | 1,501 | 720 | 48.0 | 738 | 49.2 | 102.5 | 203 |
| General total... | 44,243 | 25,785 | 58.3 | 20,061 | 45.3 | 77.8 | 5,267 |

¹ Including the adaptation of building lands.

Table V.
EXECUTION OF WORKS CARRIED OUT WITH THE ASSISTANCE OF THE LABOUR FUND
IN 1934-35.¹

WORKS EXECUTED BY BODIES OTHER THAN THE STATE (AUTONOMOUS ADMINISTRATIONS;
 PRIVATE UNDERTAKINGS WITH PARTICIPATION OF PUBLIC ADMINISTRATIONS).

| Nature of works | Cost of works | | | | | | Employment of labour |
|--|-----------------------|----------------------------------|-----------------------|-----------------|------|---|-----------------------------|
| | Total cost | Participation of the Labour Fund | | Labour | | % of cost of labour with relation to participation of the Labour Fund | Working-days (in thousands) |
| | In thousands of zloty | % of total cost | In thousands of zloty | % of total cost | | | |
| 1. Roads and bridges : | | | | | | | |
| (a) Paved roads and bridges | 8,485 | 4,866 | 57.3 | 4,100 | 48.3 | 84.3 | 1,335 |
| (b) Road surfaces | 5,128 | 3,959 | 77.2 | 2,908 | 56.7 | 73.5 | 738 |
| Total | 13,613 | 8,825 | 64.8 | 7,008 | 51.5 | 79.4 | 2,073 |
| 2. Railways and tramways : | | | | | | | |
| (a) Railways | 3,175 | 2,041 | 64.3 | 1,564 | 49.3 | 76.6 | 403 |
| (b) Tramways | 454 | 235 | 51.8 | 136 | 30.0 | 57.9 | 25 |
| Total | 3,629 | 2,276 | 62.7 | 1,700 | 46.8 | 74.7 | 428 |
| 3. Waterways and ports | 2,618 | 1,818 | 69.4 | 1,629 | 62.2 | 89.6 | 500 |
| 4. Fundamental improvements | 2,192 | 1,913 | 87.3 | 1,639 | 74.8 | 85.7 | 421 |
| 5. Water-supply work and water mains | 11,956 | 8,392 | 70.2 | 5,182 | 43.3 | 61.7 | 1,307 |
| 6. Electrification | 3,288 | 2,284 | 69.5 | 686 | 20.9 | 30.0 | 152 |
| 7. Gas supplies | 920 | 411 | 44.7 | 289 | 31.4 | 70.3 | 41 |
| 8. Construction : | | | | | | | |
| (a) Public buildings | 8,952 | 5,539 | 61.9 | 3,309 | 37.0 | 59.7 | 712 |
| (b) Dwelling-houses ² | 4,482 | 3,137 | 82.6 | 2,355 | 52.5 | 75.1 | 528 |
| Total | 13,434 | 8,676 | 64.6 | 5,664 | 42.2 | 65.3 | 1,240 |
| 9. Other works | 2,691 | 1,750 | 65.0 | 1,487 | 55.3 | 85.0 | 387 |
| General total | 54,341 | 36,345 | 66.9 | 25,284 | 46.5 | 69.6 | 6,549 |

¹ Period April 1st to December 31st, 1934.

² Including the adaptation of building lands.

Table VI.

TECHNICAL RESULTS OF THE WORKS FINANCED BY THE LABOUR FUND IN 1933-34.

A. TOTAL WORKS.

| Nature of work | Technical results | Share of the Labour Fund in the costs of construction (%) |
|---|--|---|
| 1. Roads and bridges : | | |
| (a) Paved roads and bridges | New roads : 195 kilometres. Roads rebuilt : 2,059 kilometres. 88 new bridges and culverts : length, 1,976 metres. 154 bridges and culverts rebuilt : length, 3,279 metres. | 51.9 |
| (b) Road surfaces..... | New roads : 74.4 kilometres. Roads remade : 15.1 kilometres. 1 bridge built : 18 metres. | 71.5 |
| 2. Railways and tramways : | | |
| (a) Railways..... | Railway lines : 151 kilometres. | 30.3 |
| (b) Tramways..... | Tramway lines : 17.3 kilometres. | 57.6 |
| 3. Waterways and ports..... | Regulation of rivers : 34.6 kilometres. Port works (in four ports) : 273,500 cubic metres. | 78.3 |
| 4. Fundamental improvements. | Regulation of rivers : 297.4 kilometres. Works of upkeep : over 30.1 kilometres. New dykes : 119.6 kilometres. Works of upkeep : over 241.9 kilometres. Drainage and irrigation channels and out-flow ditches : 21.4 kilometres. | 71.6 |
| 5. Water-supply work and water mains..... | Canals : 39.2 kilometres. Connections with the canal system : 42 kilometres. Piping : 28.8 kilometres. 1 filter. 1 pumping-station. 5 reservoirs. Buildings : 10,100 cubic metres. | 68.4 |
| 6. Electrification..... | Inter-urban systems : 145 kilometres. Low-tension lines : 6.8 kilometres. | 56.7 |
| 7. Gas supplies..... | Inter-urban gas supply systems : 75.8 kilometres. Urban gas-supply systems : 8.6 kilometres. Internal installations : 88. | 24.5 |
| 8. Construction : | | |
| (a) Public buildings..... | 9 schools built, 46 completed. 1 hospital built, 6 completed. Other buildings : cubic contents, 69,800 cubic metres. | 38.9 |
| (b) Dwelling-houses ¹ | Construction of houses : cubic contents, 40,900 cubic metres. Adaptation and consolidation of building lands of an area of 575.3 square metres. | 71.6 |

¹ Including the adaptation of building lands.

B. WORKS EXECUTED BY ORGANS OTHER THAN THE STATE (AUTONOMOUS ADMINISTRATIONS;
PRIVATE UNDERTAKINGS WITH THE PARTICIPATION OF PUBLIC ADMINISTRATIONS).

| Nature of work | Technical results | Share of the Labour Fund in the costs of construction (%) |
|--|--|---|
| 1. Roads and bridges : | | |
| (a) Paved roads and bridges | New roads : 159 kilometres. | |
| (b) Road surfaces..... | Roads rebuilt : 1,309 kilometres. | 50.2 |
| | New roads : 74.4 kilometres. | |
| | Roads rebuilt : 15.1 kilometres. | 71.4 |
| 2. Railways and tramways : | | |
| (a) Railways..... | Railway lines : 8 kilometres. | 40.4 |
| (b) Tramways..... | Tramway lines : 17.3 kilometres. | 21.8 |
| 3. Waterways and ports..... | — | — |
| 4. Fundamental improvements. | Regulation of rivers : 297.4 kilometres. | |
| | Dykes : 119.6 kilometres. | 69.1 |
| 5. Water-supply work and water mains..... | Canals : 39.2 kilometres. | |
| | Piping : 28.8 kilometres. | |
| | Connections with canals : 42 kilometres. | 68.4 |
| 6. Electrification..... | Inter-urban systems : 125 kilometres. | |
| | Low-tension lines : 26.8 kilometres. | 56.7 |
| 7. Gas supplies..... | Gas supply systems : 8.6 kilometres. | 93.7 |
| 8. Construction : | | |
| (a) Public buildings..... | Construction : 230,000 cubic metres. | 38.9 |
| (b) Dwelling-houses ¹ | Construction : 41,000 cubic metres. | |
| | Adaptation and consolidation of building lands of an area of 575,000 square metres. | 71.6 |
| 9. Other works..... | Various constructions. | 48.0 |

¹ Including the adaptation of building lands.

Table VII.

TECHNICAL RESULTS OF THE WORKS FINANCED BY THE LABOUR FUND
IN 1934-35.¹

WORKS EXECUTED BY ORGANS OTHER THAN THE STATE (AUTONOMOUS ADMINISTRATIONS;
PRIVATE UNDERTAKINGS WITH THE PARTICIPATION OF PUBLIC ADMINISTRATIONS).

| Nature of work | Technical results | Share of the Labour Fund in the costs of construction (%) |
|---|--|---|
| 1. Roads and bridges : | | |
| (a) Paved roads and bridges | New roads : 249 kilometres. Roads rebuilt : 20 kilometres. | 57.3 |
| (b) Road surfaces | New roads : 78.7 kilometres. | 77.2 |
| 2. Railways and tramways : | | |
| (a) Railways | Railway lines : 20 kilometres. | 64.3 |
| (b) Tramways | Tramway lines : 1.1 kilometres. | 51.8 |
| 3. Waterways and ports..... | Regulation of navigable rivers : 28 kilometres. | 69.4 |
| 4. Fundamental improvements. | Regulation of rivers : 25.8 kilometres. Drainage : 27.6 kilometres. | |
| 5. Water-supply work and water mains | Special improvements : 5,708 hectares. | 87.3 |
| 6. Electrification..... | Canals : 74 kilometres. Piping : 74 kilometres. | 70.2 |
| 7. Gas supplies | Inter-urban systems : 333.8 kilometres. Low-tension lines : 28 kilometres. | 69.5 |
| 8. Construction : | Gas-supply systems : 41.6 kilometres. | 44.7 |
| (a) Public buildings | Construction : 841,000 cubic metres. | 61.9 |
| (b) Dwelling-houses ² | Construction : 71,000 cubic metres. | |
| 9. Other works | Adaptation and consolidation of building lands of an area of 394,000 square metres. | 82.6 |
| | — | 65.0 |

¹ From April 1st to December 31st, 1934.

² Including the adaptation of building lands.

(a) ROADS AND BRIDGES.

ROADS.

I. Summary.

| Stage | Construction of new paved roads ¹ | Laying of modern ² surfaces on existing roads | Remarks |
|---|--|--|--|
| (a) Undertaken since the beginning of 1929 and now completed. | 5,000 kilometres | 1,000 kilometres | <p>¹ Including a roadway of gravel and compressed fine gravel on a foundation of ashlar, or, alternatively, of half-dressed stones laid by hand on a foundation of sand.</p> <p>² This category includes paving with setts, bituminous and asphalt surfaces and dressings, brick surfaces, concrete, cemented macadam, etc.</p> |
| (b) Now in course of execution ³ . | 800 kilometres | 300 kilometres | <p>³ The works year corresponds to the budgetary year, which begins, not on January 1st, but on April 1st.</p> |
| (c) The execution of which is at present in contemplation, or schemes for which are in preparation ⁴ . | 5,200 kilometres | 4,800 kilometres | <p>⁴ These figures correspond to the programme just drawn up for a six-year period. Its execution will be begun early in the next works year.</p> <p>In connection with this somewhat extensive programme, several of the country's chief quarries will be fitted with up-to-date plant for the manufacture of tar, asphalt and bituminous compositions, together with large-scale breaking and sizing plant.</p> |

The above figures include all categories of roads. A special effort was made on the departmental roads in Upper Silesia, where 70 % of the roads have been given an up-to-date surface.

The breadth of the roads in Poland varies from 7 to 14 metres (that is, the all-over width).

Under the new standards, a national, departmental or cantonal road in the open country will have a roadway proper of from 5 to 6 metres broad and two pathways not less than 1 metre broad and, in some cases, as much as 3.50 metres.

Local (communal) roads may be reduced to a width of 3 metres for the actual road surface and 7 metres for the all-over width, including pathways.

II.

The works in question are carried out on behalf of the central authority (Ministry) in the case of national roads, or on behalf of the regional authorities in the case of roads of general importance, or it may be even by the communes, which have recourse, at least in part, to contributions in kind.

The central authority remains in charge of the work as a whole.

A recent law provides for the granting of exclusive concessions for public road transport to companies or individuals, in return for participation in the cost of maintaining and improving the roads used.

The regional and communal authorities frequently receive subsidies from special funds (Labour Fund and Road Fund), when they carry out road works on behalf of such funds.

In the case of paved roads (for definition see above), and roads covered with a modern surface of the light type (light surface dressings, coatings, tarring, etc.), the work is, as a general rule, directly carried out by public authorities, sometimes with the assistance of piece-workers.

As regards modern surfacing of the medium or heavy type, the works are generally placed in the hands of specialised undertakings, contracts being awarded on the basis of public tenders, restricted or otherwise, and sometimes, in special cases, by private treaty. In future, the administrative authorities propose to have certain of these works carried out under their own direct control, either to train technical staff, or for experimental purposes, or in certain cases to check costs of production.

III.

Expenditure on road works is met :

1. Out of a special fund : State Road Fund, which is simply a subsidiary budget annexed to the State budget;
2. Out of the budgets of the regional and local authorities, sometimes with the voluntary contributions from public bodies.

Payments are made either in cash or by means of debt certificates, issued by the Road Fund under State guarantee.

These debt certificates bear interest at 6 %, and are redeemable at par within a period which, at present, is between five and ten years.

They represent amounts in gold zloty, which vary according to requirements.

The system of paying for works by means of debt certificates is also applied to foreign undertakings.

Hitherto no loans, internal or external, have been floated for the special purpose of financing road works.

IV.

It may be estimated that the expenditure on road works may, on an average, be allocated between materials and equipment and labour as follows :

| | |
|---|----|
| In the case of paved roads : | % |
| Materials and equipment | 60 |
| Labour directly employed | 40 |
| In the case of roads with modern surfaces : | |
| Materials and equipment | 70 |
| Labour directly employed | 30 |

The only materials of foreign origin employed for these works (with very rare exceptions) are the special American and Mexican asphalts, which, in any case, are being increasingly supplanted by national products.

Part of the equipment for the laying of modern surfaces also comes from abroad.

V.

As soon as the first symptoms of the economic depression began to make themselves felt, the execution of road works was closely linked to the problem of finding work for the unemployed.

In the six-year programme which is now on foot, special attention is given to this aspect of the matter.

The execution of this programme is expected to produce two other equally important results :

1. Economic development of the eastern part of the country, which has hitherto lacked means of communication. The greater part of the road system which it is proposed to build will be situated in vast territories which, as compared with the economic and industrial development of the rest of the country, are in a somewhat backward state.

2. The development of motor traffic, which is of vital importance to the country. Insufficiency of roads and the state of existing roads are holding up the development of motor transport and of the related industries.

The development of motor traffic, which is of such importance in the modern transport system, is dependent in Poland on the construction of new roads and the improvement of the existing roads.

ROAD BRIDGES.

I. Summary.

| Stage | Bridges on State roads | | | Bridges on roads under regional authorities | | | Total | Remarks |
|--|------------------------|---------------------|-----------------|---|---------------------|-----------------|------------------|---|
| | Iron | Reinforced concrete | Wood | Iron | Reinforced concrete | Wood | | |
| (a) Undertaken since the beginning of the year 1929 and now completed. | Metres 5,960 | Metres 2,220 | Metres 3,350 | Metres 930 | Metres 618 | Metres 3,219 | Metres 13,297 | |
| (b) Now in course of execution. | 850 | 300 | 1,400 | — | — | — | 2,550 | Both on State roads and roads under regional authorities. |
| (c) The execution of which is at present in contemplation or schemes for which are in preparation. | 7,100 | 7,350 | 10,700 | 2,580 | 2,230 | 16,300 | 46,260 | Six-year programme. Estimated expenditure approximately 90 million zloty. |

II.

In general, the administrative methods followed in regard to the execution of the road bridges are the same as those employed in regard to the roads themselves.

The works are executed :

(1) On behalf of the public authorities, under the supervision of their own specially appointed engineers, or else, in the case of ordinary bridges, under the supervision of the district heads of the Road Administration;

(2) By commercial undertakings, the contracts being awarded on the basis of public tenders.

III.

The financial methods employed are the same as in the case of the roads.

IV.

The material and equipment (almost all of national origin) represent 62 %, and labour directly employed 38 %, of the total expenditure.

V.

As regards the effects of this work on economic and industrial activity and on unemployment, what has already been said in regard to road works also applies in the case of bridges.

(b) RAILWAY LINES.

I.

Railway works represent one of the most important categories of public works.

The scheme of capital investment on the railways comprises works on the construction of a certain number of new lines and connections, the improvement of already existing lines, and the repair of damage done during the war.

As regards the execution of this programme :

(a) During the last five-year period—viz., from the beginning of 1929 to the end of 1933—the more important railway works were completed—viz. :

At a total cost of approximately 229 million zloty, 600 kilometres of new lines have been built. The most important of the new lines is that connecting the Upper Silesian coalfield with the port of Gdynia; it is 458 kilometres long and is intended more particularly for the transport of coal.

A great deal of money has been laid out on the existing railways with a view to increasing their traffic capacity and safety—viz., the construction of second tracks, the rebuilding of stations and junctions, the construction of shunting tracks, haulage installations, railway tanks, and appliances for ensuring safety of operation, etc.—representing in all an outlay of 246 million zloty. One of the most important of these works was the reconstruction of the Warsaw Junction, which was completed in 1933, at a cost of approximately 80 million zloty; in its first phase, this undertaking included the opening of a double-track line, 7 kilometres long, connecting the railway system on the right bank of the Vistula with that on the left.

The following railway equipment, which was devastated during the war, has been reconstructed : 173 railway bridges, representing a total length of 4,326 metres ; 36 stations ; 52 other buildings ; 14 tanks, etc. : total cost : 21.9 million zloty.

A considerable quantity of rolling-stock was purchased exclusively in local factories, and old engines and worn-out trucks were withdrawn from use. During the past five years, 475 new engines, 576 coaches and 17,890 goods trucks have been purchased at a total cost of 350 million zloty ; 347 engines, 245 coaches and 3,155 goods trucks have been withdrawn from service.

(b) Among the works in course of execution but not yet terminated, mention may be made of the following : works in connection with the construction of 273 kilometres, approximately, of new railway lines ; works necessitated by the reconstruction of railway junctions, more especially that at Warsaw, where the electrification of the connecting line opened to traffic in 1933 and of the suburban sections of the railway are being continued.

Work is also in progress on certain existing railway lines for the doubling of certain tracks, installation of haulage apparatus and safety appliances, etc. The rebuilding of 10 bridges destroyed during the war is proceeding.

(c) During the next few years, apart from the completion of the above-mentioned works already in progress, it is proposed to build a series of new railway lines of a total length of 1,400 kilometres, at a cost of 500 million zloty. The necessity for this further considerable extension of the railways is due to the fact that the Polish railway system is very undeveloped, particularly in the east and centre of the country. In Poland, the railway system represents a density of 4.6 kilometres per 100 square kilometres of territory, which is much lower than that of Western Europe.

It is also necessary to take in hand the rebuilding and strengthening of a considerable number of bridges on existing lines, as these bridges were built to carry trains much lighter than those at present in operation ; as a result, they are subject to undue strain, which means that the traffic has to be restricted.

The estimates for these works amount to 50 million zloty.

In view of the increase in train speeds, one of the most important needs of the Polish railways is the modernisation and improvement of the present safety appliances, which are for the most part out of date and inadequate to their purpose. This remark also applies to conditions of safety at level-crossings, which must be brought up to the standards required under the regulations in force. The cost of these works is estimated at several tens of million zloty. Apart from the rebuilding of stations and buildings destroyed during the war, new stations, housing accommodation and other railway buildings will have to be constructed. The cost is estimated at 80 million zloty.

It is proposed to purchase new rolling-stock as worn-out stock is withdrawn from service ; it is also proposed to improve the rolling-stock at present in use by fitting it with Westinghouse coupled brakes.

The execution of the full programme of necessary works within a period of ten years would entail an average annual expenditure of approximately 150 million zloty.

II. *Administrative Methods followed or contemplated for the Execution of the Above-mentioned Works.*

Almost the whole of the Polish railway system (more than 95 %) is State property ; only an insignificant number of railways belong to private companies. All lines, both State and private, are managed by the State undertaking known as the " Polish State Railways " (P.K.P.), which is incorporated as an independent body. Such being the case, the railway works are carried out under the control of the P.K.P., with the exception of works connected with the construction of railways for which concessions have been granted, which are carried out by private companies, and those on local railways in the Voivodeship of Silesia, which are carried out directly by the Voivodeship authorities.

All works connected with the reconstruction of installations destroyed during the war on the existing railway lines are carried out by the Polish State Railways under the general supervision of the central authorities (Ministry of Communications).

Contracts in respect of the more important works and supplies are awarded on the basis of public tenders, in the majority of cases to local undertakings.

III. *Method of financing the Above-mentioned Works.*

Expenditure on works executed is covered in the following ways :

(1) Out of grants from the P.K.P. Investment Funds, which are included in the ordinary general budget of the Polish State Railways—an undertaking which is managed on commercial lines;

(2) By means of grants from the labour funds, the purpose of which is to provide work for the unemployed and which are included in the general ordinary State budget;

(3) Out of the budgets of the district offices (Voivode of Silesia);

(4) By means of international loans.

In 1934, two international loans were contracted, more particularly for electrification of the Warsaw junction—that is to say, of the connecting line and suburban sections; for this purpose, an agreement was concluded between the P.K.P. and the English Electric Company, Limited, and Metropolitan Vickers Electrical Export Company, Limited, under which the English company undertook to carry out the works in question at a cost of £1,450,000, to be paid in quarterly instalments during a period of six years as from 1936.

The second contract, that with the Westinghouse Company for fitting coupled brakes to the rolling-stock, was for a total of 132,400,000 zloty. According to the contract, the brakes are to be supplied within six years, while payments are spread out over a period of ten years, the sums due to bear interest at 6 %.

IV. *Allocation of Expenditure as between Labour and Material.*

As the works executed are not all of the same kind, it is impossible to make a detailed accurate allocation of the expenditure between labour and material respectively.

The percentage of the total expenditure spent on labour during the construction of the new lines was in the neighbourhood of 35 %. The material used on the works was almost exclusively of local origin.

V. *Benefits of an Economic Nature, with Particular Reference to Unemployment, of the Works carried out or proposed.*

As stated in the introduction, all works carried out or proposed are designed to raise the national railway system to a level in keeping with the economic requirements of the country and are regarded as the most urgent and indispensable works in the national programme. Furthermore, the undertaking of extensive works makes it possible to find employment for a considerable number of persons who would otherwise be idle, and thus helps to mitigate the rigours of unemployment. In the current year, more than 8,000 unemployed have been engaged on railway works.

(c) and (e) REDISTRIBUTION OF PROPERTIES, IMPROVEMENTS
AND CONSTRUCTION IN RURAL AREAS.

A. DIVISION INTO LOTS.

I.

Up to January 1st, 1935, redistribution had been carried out over 2,662,000 hectares and 390,000 farms, at an expenditure of 59,200,000 zloty; the redistribution by years was as follows :

| | Hectares | Farms |
|------------|----------|--------|
| 1929 | 430,000 | 58,650 |
| 1930 | 510,000 | 70,750 |
| 1931 | 558,000 | 75,800 |
| 1932 | 403,000 | 60,750 |
| 1933 | 402,000 | 63,900 |
| 1934 | 359,000 | 60,150 |

During the present year, operations have been carried out in 2,403 villages with 247,094 farms, over an area of 1,583,293 hectares.

Plans for the immediate future concern the redistribution of about 500,000 hectares of land per annum.

II. *Administrative Methods.*

Redistribution is carried out by order of the State, within its jurisdiction and on its behalf, by State officials or specially appointed sworn surveyors.

III. *Method of Financing.*

The cost of general supervision over operations is paid out of the State budget and is not repayable by the parties concerned.

The financing of the technical execution of the redistribution scheme is borne by the working capital fund for agrarian reform. The sums expended must be repaid, but not in their entirety, by those benefiting by the redistribution. The latter are sometimes granted partial or total exemption from this obligation.

IV. *Distribution of Expenditure.*

Surveyors' fees represent 89 % of the expenditure, the remaining costs of execution (technical survey, travelling and allowances of personnel and other minor expenditure) representing about 11 %.

The population provides—by way of contributions in kind—lodging, heating and light for surveyors, cartage, workers for surveys, material for delimitation marks, etc. The value of these contributions is approximately 5 % of the expenditure mentioned above.

B. IMPROVEMENTS.

Since 1929, fundamental improvements, as well as improvements of detail, have been carried out.

The former concern, chiefly, the regulation of non-navigable waterways and the construction of dykes for the protection of lands against floods. For this category of works, public improvement undertakings have been created, with the assistance of the landowners concerned, organised into water syndicates or groups for the building of dykes,

and with the assistance of the autonomous regional administration. The State Treasury also contributes towards the payment of the costs by granting subsidies for the execution of the works. The subsidy is fixed, according to the nature of the work, at a certain percentage of the estimate. To provide for the participation of the Treasury in the expenditure on works carried out by the public improvements undertakings, a fund, known as the State Improvement Fund, was created under the law for promoting public improvement undertakings. This fund is supplied by budgetary credits. Works relating to the regulation of waterways are executed on account of the public improvement undertakings. Supervision and control over their execution are carried out chiefly by Government services.

Works relating to the regulation of waterways by years may be seen from the following table :

| Budgetary year | Dyking of rivers | | | | Regulation of rivers and mountain streams | | | |
|----------------|------------------------|------------------------------|---------------------------|---------------------|---|---------------------|-------------------------|---------------------|
| | Number of undertakings | Length of dykes (kilometres) | Area protected (hectares) | Expenditure (zloty) | Number of undertakings | Length (kilometres) | Area drained (hectares) | Expenditure (zloty) |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1929-30 | 15 | 77 | 22,900 | 2,570,000 | 66 | 361 | 28,000 | 6,085,000 |
| 1930-31 | 14 | 38 | 18,300 | 1,719,000 | 68 | 285 | 24,000 | 4,826,000 |
| 1931-32 | 16 | 20 | 19,400 | 1,286,000 | 65 | 183 | 15,900 | 3,071,000 |
| 1932-33 | 14 | 19 | 18,500 | 506,000 | 57 | 64 | 13,600 | 1,232,000 |
| 1933-34 | 21 | 79 | 83,700 | 2,545,000 | 82 | 368 | 42,600 | 3,961,000 |

The expenditure also includes disbursements by the autonomous regional administrations and the individuals concerned. For the dyking of rivers, Treasury credits amounted to about 5,444,200 zloty; the autonomous administrations paid close upon 2,324,200 zloty, and the individuals concerned about 857,200 zloty. For the regulation of rivers and mountain streams, the State Treasury contributed approximately 11,009,000 zloty. Payments made by the autonomous administrations amounted to 5,166,000 zloty and those made by individuals to about 3,000,000 zloty.

During the financial year 1934-35, improvement works on waterways were carried out in 99 cases, at an expenditure of 6,800,000 zloty, in addition to the sums expended on those works out of payments made by the autonomous administrations and individuals.

Since 1934, the Labour Fund, created in 1933 by a special law, has played an important part in financing the hydraulic improvement works. During the financial year 1933-34, a sum of 4,461,000 zloty was expended out of this fund for such improvement works; the following year, the expenditure was close upon 6 million zloty.

For 1935-36, provision has been made for the execution of hydraulic improvement works in 149 cases, at an approximate expenditure of 9,400,000 zloty, the Labour Fund contribution being about 8,300,000 zloty, in addition to payments by autonomous administrations and individuals. The fact that a great deal has to be done in the matter of the regulation and dyking of rivers and that it is important to employ as many unemployed workers as possible on these works will ensure the development of the latter.

In hydraulic improvement works, labour represented about 70 % of the total expenditure, material about 20 %, and inspection and control about 10 %. These works are well suited to unemployed persons, especially non-specialised workers.

Improvements in regard to detail consist chiefly of the draining of marshlands under the programme for the reorganisation of the agrarian regime (redistribution of properties, abolition of servitudes, breaking up of State properties). Drainage work takes the form of the regulation of small watercourses (apart from more fundamental regulation works) and the construction of canals and cutting of open ditches.

Up to 1932-33, these works were financed by the provincial budgets and by the working capital fund for agrarian reform; since 1932-33, they have been financed entirely by the latter.

These improvement works are carried out by State organs on behalf of owners interested in the reorganisation of the agrarian regime and with assistance in kind supplied by the latter, chiefly in the form of labour (for the redistribution of properties).

The development of such works depends largely on the extent of the contributions in kind, which it is possible to obtain in the form of labour. The more the population realises the advantages of these improvement works, the more readily contributions are found to be forthcoming, a fact which is important in increasing the extent and reducing the cost of drainage.

Improvements in the matter of detail and the credits expended may be seen, by years, in the following table :

| Budgetary year | Works executed | | | Expenditure (zloty) |
|----------------|--|---|-----------------|---------------------|
| | Regulation of rivers and canals (kilometres) | Drainage by means of ditches (kilometres) | Area (hectares) | |
| 1 | 2 | 3 | 4 | 5 |
| 1929-30 | 58 | 1,107 | 29,400 | 4,600,000 |
| 1930-31 | 54 | 1,134 | 29,500 | 6,200,000 |
| 1931-32 | 143 | 1,124 | 43,400 | 2,800,000 |
| 1932-33 | 253 | 2,438 | 91,400 | 3,100,000 |
| 1933-34 | 140 | 1,815 | 66,100 | 1,900,000 |

The above expenditure includes expenditure on the improvement and sowing of lands employed for agriculture after the draining of part of the marshes in the State domain of Staniewicze, in Polesia.

In 1934-35, the regulation of rivers and mountain streams was carried out over 228 kilometres, and outflow ditches were dug over close upon 1,974 kilometres, at a cost of about 1,800,000 zloty. The expenditure for next year on improvement works in the matter of detail, in connection with the reorganisation of the agrarian regime, is estimated at about 2 million zloty, with a considerable increase in the expenditure on preparatory works (experts' opinions, survey of the ground and plans).

In view of the interest taken by the rural population, there is likely in the near future to be an increase in the labour available for such works carried out in connection with the reorganisation of the agrarian regime, and this will mean an increase in the extent of the works and a reduction in the costs of execution.

C. CONSTRUCTION OF FARM BUILDINGS.

The construction of farm buildings in connection with the reorganisation of the agrarian regime was begun by the former Ministry for Agrarian Reform towards the end of 1928. The work proceeded simultaneously with the breaking-up of State properties and redistribution operations.

1. On the breaking-up of State properties, two systems were employed for the construction of farm buildings :

(a) Under the first, the settlers are given building credits, and it is they who are responsible for construction, under the supervision of the Voivodeship; this occurs principally when, in any given locality, there is a need for farm buildings only in isolated cases;

(b) Under the second, the Voivodeship administration arranges for the building works to be carried out, either directly by the authorities or by contract, or again by a method consisting of the purchase of materials by the Voivodeship which entrusts the various works to artisans. When the Voivodeship carries out the construction direct, the settlers take over the farms complete, with the farm buildings already erected.

The costs of construction are borne by the working capital fund for agrarian reform and are added to the sale price of the land, which the settlers pay by instalments over a large number of years (about forty years).

Since the institution of this scheme—that is to say, since 1928—farm buildings have been erected in conjunction with the breaking-up of State properties for about 3,300 farms.

2. In connection with redistribution operations, the persons concerned have received from the working capital fund for agrarian reform credits either in cash or in building timber derived principally from the State forests. They have, in addition, received from the Voivodeship technical assistance in the form of building plans or technical suggestions and advice. At present, however, the attention of the Voivodeships is being concentrated chiefly on the following points :

(a) The improvement of the plan of villages from the point of view of future economic possibilities and building methods (building plans are drawn up, as far as possible, at the same time as the plans for the redistribution of property);

(b) The situation of the buildings in the various farm lands.

Building works and the sums expended on farm buildings in connection with the reorganisation of the agrarian regime, the breaking-up of State properties, and the redistribution operations may be seen, by years, from the following table :

| Year | Number of schemes supplied | | Plans drawn up | | Built with the assistance of the Voivodeship architects | | Expenditure on construction (zloty) |
|---------|---|----------------|----------------------------|-------------------------------|---|----------------|-------------------------------------|
| | Main buildings | Farm buildings | Improvement of settlements | Arrangement of farm buildings | Main buildings | Farm buildings | |
| 1928 .. | 211 | 191 | — | — | — | — | 9,794,650 |
| 1929-30 | 1,863 | 4,115 | — | — | 179 | 765 | 12,186,000 |
| 1930-31 | 3,749 | 6,753 | — | — | 707 | 2,542 | 15,392,990 |
| 1931-32 | 1,208 | 2,192 | — | 3,252 | 2,469 | 5,745 | 8,463,330 |
| 1932-33 | 749 | 1,299 | 23 | 4,980 | 6,523 | 12,246 | 2,800,430 |
| 1933-34 | These figures have not been received. | | 105 | 7,020 | 6,481 | 13,436 | 2,019,090 |
| 1934-35 | The new forms had not been sent out when the present report was drawn up. | | | | | | 2,800,000 (approximately) |

(d) NAVIGABLE WATERWAYS.

I. GENERAL CONDITIONS.

Poland is particularly suited by nature for the development of inland navigation.

The most important watercourse—the Vistula—flows through the heart of the country, linking the capital with the sea. In the neighbourhood of the capital, it is also joined by two of its chief tributaries, the Narew and the Bug.

Poland is the flattest country in Europe. Its streams flow gently. The watersheds dividing the waters of the Vistula from those of such other great streams as the Dnieper, the Oder and the Niemen lie in marshy plains where there is an abundance of water.

Such conditions are highly favourable to the operation of the natural navigable waterways and to the construction of canals.

The rather unusual position of the chief centres of exploitation of Poland's natural wealth, and more particularly the proximity to the frontiers of her coal-mines, her most valuable forests, and, almost diametrically opposite them, of her sea-ports, necessitate the transport of raw materials over distances of 600 to 800 kilometres (coal, 630 kilometres from Silesia to the sea; timber, 800 kilometres from Polesia to Danzig; granite, 500 kilometres from Volhynia to Warsaw, etc.). These distances are sufficiently great for the cost of transport by water to be very appreciably lower than the cost of transport by rail.

It may therefore be concluded that, in Poland, both the economic conditions and physical conformation of the country are suitable for the use of navigable waterways.

2. PRESENT POSITION OF THE NATURAL NAVIGABLE WATERWAYS.

The greater part of Poland's vast network of waterways is still in a very primitive state. Conservancy works have only been carried out over a distance of 213 kilometres in the lower reaches of the Vistula (former Prussian Vistula) and to some extent over a distance of 260 kilometres of the Upper Vistula (former Russo-Austrian frontier).

Similarly, the Warta has been improved for a distance of 236 kilometres in the territory which formerly belonged to Germany and now offers a navigable channel with a depth of from 1.4 to 1.8 metres.

From the mouth of the San to the former Russo-German frontier, the Vistula is in an absolutely primitive state for a distance of 426 kilometres.

The hydrological characteristics of the Vistula make it certain that conservancy works intelligently carried out would make it possible to obtain a depth of not less than 1.5 metres—which is quite sufficient for 600-ton barges—below the confluence of the San, and a depth of 2 metres—which would permit of the navigation of 1,000-ton barges—below the confluence of the Bug.

The Bug and the Narew, which are the chief tributaries of the Vistula, might also, if properly improved, become first-class navigable waterways. As their fall is less than that of the Vistula (on an average 0.16 ‰, and in the upper reaches as little as 0.1 ‰), these rivers, after the necessary works, would no doubt be even more suitable for navigation than the improved Warta, which is their equal in the matter of basin and flow but—on account of its greater fall—their inferior in the matter of navigability. With a fall not exceeding 0.06 metre per kilometre, the Prypeć is even more suitable for navigation.

3. SCHEMES FOR THE FUTURE.

Appreciating the importance, from the point of view of communications and agriculture, of the improvement of the country's watercourses—a task which has hitherto been neglected—the Polish Government has given the closest attention to the study of this question. Detailed surveys have been made of the most important watercourses, plans drawn up, preparatory works carried out and certain of the major works actually begun and partially completed (the river port at Warsaw and Plock, the Porombka reservoir, various conservancy works, etc.). These works have demonstrated that the cost of improving the course of the Vistula is not less than 600,000 zloty per kilometre, the corresponding figures for the Bug, the Prypeć, the Narew, etc., being approximately 100,000 zloty per kilometre.

The scheme for the rebuilding of the Royal Prypeć-Bug Canal for 600-ton vessels and its use for drainage purposes has been worked out in detail. The estimate amounts to 35 million zloty for a distance of 170 kilometres. With the scheme for the improvement of the Bug by means of the regulation of the flow and to some extent by means of canalisation is combined an interesting scheme for a vast reservoir embracing a group of lakes

in the neighbourhood of Wlodawa and containing 500 million cubic metres of water, a lateral canal from Malkinia to Warsaw making 30,000 h.p. of power constantly available on a 20-metre fall, and a fixed-level industrial river port on the outskirts of Warsaw.

The question of the transport of coal by water has attracted the attention of the Polish Government ever since the earliest days of the country's independence.

The following are the only two solutions possible :

(a) Exportation down the Vistula. This would require, in addition to the regulation of the waterway, the construction of a lateral canal above Cracow—Cracow-Spytkowice and Spytkowice-Myslowice—as far as the coal-field. As the construction of part of this canal was begun by the Austrian Government before the war, this would appear to be the less costly solution, and the completion of this part of the canal has been decided by the Polish Government;

(b) Construction of a canal from Silesia to the Lower Vistula, making use of part of the Warta (approximately 150 kilometres), Lakes Goslawice and Goplo (45 kilometres) and the Upper Noteć Canal.

The construction of this navigable waterway for 600-ton vessels would necessitate the outlay of a considerable sum, perhaps as much as 300 million zloty.

The lower section of this waterway—the canal between Lake Goplo and the Warta river—would not, however, cause any great difficulties, and the scheme worked out in detail shows an estimated cost of not more than 13 million zloty for 600-ton vessels and 6 million zloty for 300-ton vessels. In 1929, more than 8 million tons of coal were sent from Silesia to the sea. The construction of a navigable waterway which might be used for this very heavy traffic—which is probably destined to still further development in the future—over a distance of 600 kilometres represents one of the most important tasks in Poland's economic life.

The country's most important navigable waterways follow two main lines which intersect in the heart of the country, near the capital :

1. *South-North : the Vistula.*

This system links the coal-fields and heavy industrial area to the Polish ports at the mouth of the Vistula.

The Vistula is a natural trade route 940 kilometres long. From the point of view of transport requirements, its natural characteristics from end to end vary considerably and call for different technical treatment.

2. *West-East.*

This system is made up by the Noteć and the Brda, which have been canalised, the Vistula, the Bug, the Royal Canal, and the Prypéc, as far as the frontier.

This waterway maintains commercial communications and acts as a link between Western and Eastern Europe. Apart from coal and the products of the metallurgical industry, which use the North-South route for purposes of transit, this system is used for transporting timber, granite and foodstuffs.

The two main systems would have to be completed by the opening-up of a navigable waterway between the coal-basin and Spytkowice (on the Upper Vistula).

Another important branch would be the Warta-Golpo Canal, which, after the improvement of the Warta between Konin and the mouth of the Prosna and the additional conservancy works above Poznan, would form the Warta-Vistula waterway, linking up the rich Polish provinces of Poznan and Lodz to the system of navigable waterways.

The traffic on Poland's navigable waterways (including timber floating) exceeds 1 million tons annually.

| Group | Type of construction | No. | Name of the navigable waterway or new works | A. The scheme has been approved B. The scheme has not been approved or no scheme has been drawn up | Ad 1 | Ad 2 | Ad 3 | Ad 4 |
|-------|----------------------|-----|---|---|------|---|--|-------------------------------|
| | | | | | | Technical plans and designs | General estimate of cost and extent to which the expenditure is to be covered by the State and communes and internal or foreign loans | Duration of the works (years) |
| | | 1 | Conservancy works on the Vistula, 438 kilometres between the San and Otloczyn (former German frontier). | A | | The general scheme is in the possession of the Ministry of Communications. It was examined in 1926 by the League Committee of Experts. The various sections of the detailed schemes are at the Department of Navigable Waterways, Warsaw. | The estimated cost is 200 million zloty. Funds may be obtained either from the State budget or by means of an internal or foreign loan. | |
| | | 2 | Additional improvements on the Vistula between the Dunajec and the San, 119 kilometres. | A | | The general scheme, together with the detailed schemes drawn up as the work is put in hand, is in the possession of the Department of Navigable Waterways, Cracow. | Estimated cost, approximately 30 million zloty. Finance : see No.1 above. | |
| | | 3 | Improvement of the Royal Canal (Vistula - Dnieper) between Brześć and Pińsk, 190 kilometres. | A | | The detailed scheme is in the possession of the Ministry of Communications. | The execution of this work has been divided into two stages : 1. Adaptation of the canal to take boats of 400 tons : cost price, 15 million zloty. 2. Subsequent adaptation so as to take 1,000-ton vessels : cost price, 20 million zloty. Finance : see No. 1 above. | |
| | | 4 | Improvement of the Bug below Brześć, 360 kilometres with a feed reservoir containing 500 million cubic metres to be formed out of Lakes Switez and Pulma, near Wlodawa. | B | | A detailed survey has been made and is now in the possession of the Ministry of Communications. The scheme is now in course of preparation. | Estimated cost : (a) Of the river improvements, approximately 10 million zloty. (b) Of the reservoir, approximately 25 million zloty. Finance : see No. 1 above. | |

| Ad 5 | Ad 6 | | Ad 7 | Ad 8 | Ad 9 and 10 of the questionnaire and points 1 and 2 of the general indications |
|---|----------------------|---------------------------|--|--|--|
| Number of man-days to be worked (millions) | Materials to be used | | Cost of maintenance and operation of completed works | Anticipated productivity of the works and plan of amortisation | |
| | Type | Value in million zloty | | | |
| 50 | | | 3,000 zloty per kilo- metre per annum. | <p>(a) Present traffic, approximately 500,000 tons; traffic expected, approximately 4 million tons. Estimated tolls, approximately 2 million zloty.</p> <p>(b) The decrease in the losses hitherto caused by periodic floods on this section of the stream is estimated at 5 million zloty per annum.</p> <p>(c) The productivity of this work is based upon the beneficial indirect influence of the river improvements on the economic development of the country.</p> | |
| 7.5 | | | 2,000 zloty per kilo- metre per annum. | <p>(a) Traffic expected, approximately 3 million tons. Estimated tolls, approximately 500,000 zloty.</p> <p>(b) and (c): See No. 1 above.</p> | |
| 3 | | | 1,000 zloty per kilo- metre per annum. | The canal forms part of the West-East system (Vistula-Dnieper), the future traffic to be carried by which is estimated at 4 million tons. Tolls, approximately 1,500,000 zloty. The canal is of importance from the point of view of the drainage of the country (Polesia) (more than 400,000 hectares). | |
| 4 | | | | | |
| 2.5 | | | 500 zloty per kilo- metre per annum. | The river forms part of the West-East system, the future traffic to be carried by which is estimated at 4 million tons. Tolls, approximately 1 million zloty. The reservoir and its operation are closely bound up with the use of the water-power of the Malkinia-Warsaw Canal (see No. 5). | |
| 5 | | | | | |

| Group | Type of construction | No. | Name of the navigable waterway or new works | A. The scheme has been approved B. The scheme has not been approved or no scheme has been drawn up | Ad 1 | Ad 2 | Ad 3 | Ad 4 |
|-------|----------------------|-----|---|---|------|--|---|-------------------------------|
| | | | | | | Technical plans and designs | General estimate of cost and extent to which the expenditure is to be covered by the State and communes and internal or foreign loans | Duration of the works (years) |
| | | 5 | Canal from Warsaw to Malkinia, 90 kilometres. | B | | A detailed survey to the scale of 1 : 2,500 has been made and is now in the possession of the Ministry of Communications. The detailed scheme is in course of preparation. | Estimated cost : approximately 100 million zloty, including the plant of 4 hydro-electric power stations of 30,000 h.p. generating 200 million kw.h. per annum. Finance : State or private enterprise. | |
| | | 6 | Myslowice-Spytkowice Canal (Coalfield, Vistula), 55 kilometres. | B | | The scheme is in course of preparation. | Estimated cost : approximately 20 million zloty. Finance : see No. 1. | |
| | | 7 | Navigable waterway from Spytkowice to Cracow, 36 kilometres. | A | | 40 % of the work has been completed. The scheme is in the possession of the Navigable Waterways Department, at Cracow. | Estimated cost : approximately 30 million zloty. Finance : see No. 1. | |
| | | 8 | Canal from Lake Goplo to Warta, 40 kilometres, 18 kilometres through lakes. | A | | The draft is in the possession of the Ministry of Communications. | Estimated cost : 6 million zloty. State. | |
| | | 9 | Port of Cracow (Vistula). | A | | The scheme is in the possession of the Navigable Waterways Department, Cracow. | Estimated cost : 4 million zloty. 25 % of the work completed. State. | |
| | | 10 | Port of Pulawy (Vistula). | B | | The scheme is in the possession of the Ministry of Communications. | Estimated cost : 4 million zloty. State. | |
| | | 11 | Commercial river port of Warsaw at Saska Kempa (Vistula). | A | | 75 % completed. | Estimated cost : Total, 8 million zloty. Remaining to be done, 2 million zloty. State. | |

| Ad 5 | Ad 6 | | Ad 7 | Ad 8 | Ad 9 and 10 of the questionnaire and points 1 and 2 of the general indications |
|---|----------------------|---------------------------|---|---|--|
| Number of man-days to be worked (millions) | Materials to be used | | Cost of maintenance and operation of completed works | Anticipated productivity of the works and plan of amortisation | |
| | Type | Value in million zloty | | | |
| 20 | | | 3 million zloty. The canal, 5,000 zloty per kilometre per annum. Hydro-electric power stations, etc.: 2,500,000 zloty. | The canal forms part of the West-East system (Vistula-Dnieper), the future traffic of which is estimated at 4 million tons. Tolls: 1 million zloty. Power generated: 2 million kwh. at 0.08 zloty per kwh. = 16 million zloty. Consumption at Warsaw ensured. | |
| 4 | | | 3,000 zloty per kilometre per annum. | The canal forms part of the navigable waterway between the coalfield and the sea, via the Vistula. The traffic is estimated at 3 million tons. Tolls: 500,000 zloty. | |
| 6 | | | 2,000 zloty per kilometre per annum. | See No. 6. | |
| 1.2 | | | 1,000 zloty per kilometre per annum. = 40,000 zloty. | The canal is an extension of the Upper Noteć Canal, the present traffic borne by which is 80,000 tons (250-ton vessels). Expected traffic: 300,000 tons: after extension as far as Lenczyca (near Lodz) and canalisation of the Warta, the traffic may be increased to 3 million tons (coal). | |
| 0.6 | | | 30,000 zloty per annum. | The goods handled are expected to amount to 500,000 tons. Charge, 0.5 zloty per ton. | |
| 0.8 | | | See 8. | See 8. | |
| 0.4 | | | 30,000 zloty per annum. | Goods handled: At present, approximately 100,000 tons; estimated, 2 million tons. Charge, 0.5 zloty per ton. | |

| Group | Type of construction | No. | Name of the navigable waterway or new works | A. The scheme has been approved B. The scheme has not been approved or no scheme has been drawn up | Ad 1 | Ad 2 | Ad 3 | Ad 4 |
|-------|----------------------|-----|---|---|------|---|---|-------------------------------|
| | | | | | | Technical plans and designs | General estimate of cost and extent to which the expenditure is to be covered by the State and communes and internal or foreign loans | Duration of the works (years) |
| | | 12 | Industrial port of Warsaw, at Zezan; fixed level with a canal 20 kilometres long, Zezan-Zegrze (Bug). | A B | | The scheme is in the possession of the Ministry of Communications. | Value of land acquired and work already carried out, approximately 10 million zloty. Cost price of work remaining to be done, 12 million zloty. State or joint-stock company. | |
| | | 13 | River port of Plock (Vistula). | A | | The scheme is in the possession of the Navigable Waterways Department, at Warsaw. | Estimated cost : 5 million zloty. 60 % having already been laid out, leaving 2 million zloty still to be spent. State. | |
| | | 14 | Porabka reservoir on the River Sola, 32 million cubic metres. | A | | The scheme is in the possession of the Navigable Waterways Department, Cracow. | Estimated cost : 15 million zloty, 60 % having already been laid out, leaving 6 million zloty still to be spent. State. | |
| | | 15 | Rojnow reservoir on the River Dunajetz, 228 million cubic metres. | B | | The scheme is in the possession of the Ministry of Communications. | Estimated cost : 30 million zloty. State. | |
| | | 16 | Kosewo Wkra reservoir, 80 million cubic metres. | B | | The scheme is in course of being drawn up at the Ministry of Communications. | Estimated cost : 12 million zloty. State. | |

| <i>Ad 5</i> | <i>Ad 6</i> | | <i>Ad 7</i> | <i>Ad 8</i> | <i>Ad 9 and 10</i> of the questionnaire and points 1 and 2 of the general indications |
|---|----------------------|---|--|---|---|
| Number of man-days to be worked (millions) | Materials to be used | | Cost of maintenance and operation of completed works | Anticipated productivity of the works and plan of amortisation | |
| | Type | Value in million zloty | | | |
| 2.0 | | | 50,000 zloty per annum. | It is expected that approximately 3 million tons of freight will be handled. The productivity is based on the increase in the value of the port sites and of those along the canal, which is closely connected with the drainage of the marshes in the vicinity of the capital. | |
| 0.5 | | | 30,000 zloty per annum. | Freight expected to be handled : 500,000 tons. | |
| 1.0 | | Concrete, 80,000 cubic metres; cement, 16,000 tons. | 500,000 zloty per annum. | Hydro-electric power station, 20,000 kw. Output, 27 million kw.h. | |
| 4.0 | | Concrete, 270,000 cubic metres; Cement, 54,000 tons. | | 1. Hydro-electric power station, 50,000 kw. Output, 147 million kw.h. 2. Works for the prevention of dangerous floods. | |
| 1.2 | | | | Hydro-electric power station, 10,000 kw. Output, 15 million kw.h. | |

The traffic on the Vistula amounts to 500,000 tons and represents a total of 150 million ton-kilometres.

An analysis of the present railway traffic, which in 1929 amounted to 85,862,000 tons, shows that the Vistula and the other navigable waterways might take over at least 10 million tons of goods, or 12 % of the total traffic from the railway system (30 % in the direction of Germany, 40 % in the direction of Russia).

In order to complete the South-North route over its entire extent between the coal-field and the mouth of the Vistula, the following works would have to be carried out :

1. Canal between the coal-field and Spytkowice.
2. Canal between Spytkowice and Cracow.
3. Additional conservancy works on the Vistula between Cracow and the mouth of the San.
4. Conservancy works on the Vistula between the mouth of the San and Otloczyn.
5. Construction, on its tributaries rising in the Carpathians, of a number of reservoirs with a total capacity of more than 300 million cubic metres in order to protect the inhabitants of the districts threatened by dangerous floods.
These reservoirs, together with the feed reservoir at Wlodawa, on the Bug (see below), with a capacity of 500 million cubic metres, would ensure a minimum flow of 500 cubic metres per second on the Vistula below the Bug.
6. The Warsaw-Malkinia Canal with hydro-electric power stations generating 30,000 h.p. and an annual output of 200 million kw. h.
7. Conservancy of the Bug, below Brzesc, with a feed reservoir of 500 million cubic metres capacity, built round the lakes near Wlodawa.
8. Reconstruction of the Royal Canal between Brzesc, on the Bug, and Pinsk.

The above brief account of the state of the navigable waterways in Poland, their conditions of operation and the highly important part that they are probably destined to play in the life of the country, justify the conclusion that, being extremely backward in this respect, Poland has now every reason to take a keener interest in inland navigation questions.

(g) MARITIME PORTS.

I.

| | Zloty |
|--|------------|
| From January 1st, 1929, up to date, maritime hydraulic works, such as the construction of docks, breakwaters, wharves, landing-stages for passengers in the ports of Gdynia and Hel and along the Polish littoral were undertaken to a total value of..... | 65,700,000 |
| Port warehouses, service buildings for the maritime prefecture, dwelling-houses, administrative and industrial premises, such as workshops, garages, luggage depots, waiting-rooms for workers, public conveniences, etc., were constructed to the value of..... | 16,200,000 |
| For the construction of roads, railways, viaducts, water-supply works and water mains and for digging and levelling, expenditure amounted to.... | 9,000,000 |
| For 38 harbour cranes, the expenditure was | 8,200,000 |
| | 99,100,000 |
| This brings the total value of the works carried out to..... | |

The plan of works for the immediate future—that is to say, for the budgetary year 1935-36—includes the following items :

| | Zloty |
|---|-----------|
| Hydraulic works..... | 2,900,000 |
| Construction..... | 275,000 |
| Roads..... | 1,100,000 |
| Transshipment equipment (8 cranes)..... | 1,100,000 |
| Total... | 5,375,000 |

II.

The above works have been and are at present being carried out by private undertakings under tender on account of the State.

III.

The bulk of the works is carried out by means of long-term credits, which are reimbursed by monthly payments under the budget of the State.

The transshipment works for the current year are being carried out under two-year credits.

IV.

It is difficult to allocate the expenditure as between costs of material and costs of labour. Approximately, 60 % represents labour and 40 % materials.

(h) AIRPORTS.

I.

Between 1929 and 1934, the Ministry of Communications completed the following works, which were listed among the most urgent of those included in the general scheme drawn up in 1929 for the five following years :

1. The landing-grounds of the chief airports at Warsaw, Lwów, Poznan, Cracow, and Gdynia have been purchased, evened out and made ready for use.

2. At the above-mentioned airports (with the exception of Gdynia), 6 hangars have been constructed.

3. Plant has been installed at the above-mentioned airports for the storage of petrol and oil.

4. The buildings and plant required for ordinary air traffic have been constructed; boiler-rooms for central heating, housing accommodation, stores, workshops, stations, barriers, approach roads and connecting roads, and electrical, telephonic and heating installations.

5. Including housing accommodation for the staff, 5 transmitting air stations (wireless telegraphy) have been constructed together with 7 wireless direction-finding stations, which are essential for the purpose of guiding aeroplanes.

6. The lighting of the lines has been begun, 4 air beacons having been already constructed, while in 4 airports lights have been placed in position marking the boundaries of the landing-field and various obstacles.

7. During the current year, it is proposed to construct two airports (each of which will be provided with a hangar, a station, and an office building, together with approach roads and the necessary installations).

Plans are at present under consideration for the extension of an airport in the vicinity of Warsaw, the construction of which is to be set on foot in 1935.

II.

The expenditure necessitated by the various works enumerated above has been borne, as from April 1st, 1931, by the budget of the Polish State Railways, and previously by the State budget.

Altogether, the expenditure borne by the Ministry of Communications in respect of the laying-out of landing-grounds and the construction of buildings and various installations during the last five years amounts to approximately 15 million zloty, including 5.6 million zloty for the expropriation of land and 3.8 million zloty for labour. All material used in the construction of the airports was of Polish origin, with the exception of the air-beacons, which were purchased in France.

III.

All the works have been carried out by the Ministry of Communications and its subordinate authorities.

(i) CONSTRUCTION OF DWELLING-HOUSES.¹

Economic and social considerations have prompted the public authorities in many countries to take measures for the construction of dwelling-houses, either by granting long-term public credits at low interest or by granting subsidies, or, lastly, by giving indirect assistance in the form of fiscal privileges for new dwelling-houses. In Poland, the first and last of these types of assistance are employed. Public credits are furnished by the State Building Fund, which is administered by the National Economy Bank. Up to 1932, credits to the amount of 90 % of the cost of construction were granted, the chief recipients being co-operative societies constructing large blocks of dwellings. The public funds employed for this purpose amounted to upwards of 60 % of the cost of construction. From 1932 onwards, credits were granted mainly for small dwellings, to which particular attention was paid in view of the requirements of the labour market and the demand for housing accommodation. The financing of this form of building activity is very advantageous from the point of view of the economic utilisation of public funds, since in 1932 and 1933 public credits represented about 20 % of the total cost of construction.

The following table shows the credits granted by the National Economy Bank by years and the number of dwelling-houses built with the help of these credits (supplementing the builder's own capital).

| Year | Credits granted Zloty | Number of houses |
|-----------|--------------------------|---------------------|
| 1929..... | 55,500,000 | 6,352 |
| 1930..... | 136,300,000 | 35,176 |
| 1931..... | 55,800,000 | 7,860 |
| 1932..... | 29,500,000 | 12,091 |
| 1933..... | 29,100,000 | 28,819 |
| 1934..... | 46,800,000 | 53,374 |
| 1935..... | 36,000,000 | — |

¹ In the present report, no account has been taken of the construction of premises for the various services of the public administration or State undertakings.

No credits are granted from the State Building Fund in the Voivodeship of Silesia, where the Silesian Economic Fund serves a similar purpose. The fund's activities in the construction of dwellings may be seen from the following figures :

| Year | Credits granted Zloty | Number of houses |
|---------------|--------------------------|---------------------|
| 1928-29 | 6,363,000 | 4,294 |
| 1929-30 | 6,217,000 | 3,778 |
| 1930-31 | 7,483,000 | 4,594 |
| 1931-32 | 5,013,000 | 3,458 |
| 1932-33 | 5,102,000 | 3,259 |
| 1933-34 | 2,935,000 | 2,216 |

During the period covered by the present report (exclusive of 1935), the total loans from the two funds amounted approximately to 386 million zloty, with the help of which 165,271 houses were built.

The measures taken for the construction of dwelling-houses concern only to a minor extent the construction of workers' dwellings. To supply this deficiency, a special institution, the Workers' Dwelling Company, was founded in February 1934; last year, it obtained credits from the Labour Fund to the amount of approximately 4 million zloty and, during the current year, it will receive for constructions, from the Labour Fund and from the State Fund, credits amounting to 7 million zloty.

(1) TELEGRAPHS, TELEPHONES, POSTS.

I. Works begun since January 1st, 1929, and now completed or in Process of Execution. *Plan of Work for the Near Future.*

A. CONVERSION OF THE STATE TELEPHONE SYSTEMS INTO AUTOMATIC SYSTEMS.

Very little was done between January 1st, 1929, and the end of 1930 as regards the conversion of the telephone systems into automatic systems. During that period, a new automatic exchange was constructed at Radom with 3,000 numbers, and the capacity of the exchange already existing at Cracow was increased to 4,000 numbers.

It was only in 1931 that the Ministry of Posts, Telephones and Telegraphs undertook the systematic conversion of the telephone systems in Poland under a scheme for the six years following. Up to 1935, 20,400 automatic instruments have been installed—namely :

(1) The regional systems of Upper Silesia (11 exchanges) and Gdynia (3 exchanges);

(2) The urban exchanges at Czestochowa, Cieszyn, Rabka, Krynica, Tczew, Piotrków, Plock, Kielce, Grudziadz, Torun and Przemysl; subsidiary exchanges for subscribers.

The total cost of these works was 19,934,800 zloty, divided as follows :

| | Zloty |
|--|------------|
| 1. Automatic exchanges and urban system..... | 14,766,100 |
| 2. Inter-urban exchanges..... | 1,668,700 |
| 3. Regional cable systems..... | 3,500,000 |

The automatic equipment was supplied by the Automatic Electric Company, Ltd., an English firm, under a contract concluded in 1931 with the Telephone and General

Trust, Ltd. The contract includes credits in goods to the amount of £300,000 and a cash loan to the amount of £250,000.

The telephone systems covered by these works comprised a total of 10,900 subscribers.

After the modernisation of the telephone installations, there was a rapid increase—up to 16,400 or, 53 %—in the number of subscribers in those exchanges which had been made automatic.

At present, automatic exchanges are being installed with a total capacity of 8,800 numbers and inter-urban exchanges. The works in question comprise :

- (1) The regional system of the Dabrowa Basin and the suburban system of Warsaw-Otwock;
- (2) The extension of the exchanges at Katowice, Gdynia, Torun and Rabka;
- (3) The inter-urban exchange at Warsaw and various other exchanges.

The total cost of these works was as follows :

| | Zloty |
|--|------------------|
| 1. Automatic exchange and urban systems..... | 4,756,000 |
| 2. Regional cable systems..... | 2,200,000 |
| 3. Inter-urban exchanges..... | <u>3,762,000</u> |
| Total... | 10,718,000 |

Provision has been made for the construction in the near future of new automatic exchanges (15,000 instruments)—namely :

- (1) The suburban system of Grodzisk-Milanówek, Skolimów and others;
- (2) Urban exchanges at Poznan and Wilno, and the further extension of the exchanges at Katowice and Gdynia.

The estimated expenditure on these works is as follows :

| | Zloty |
|---|------------------|
| 1. Automatic exchanges and urban systems..... | 6,960,000 |
| 2. Regional cable systems..... | <u>1,700,000</u> |
| Total... | 8,660,000 |

Among the works enumerated above, those connected with the regional system and the coal-basin are deserving of special attention.

The Upper Silesian system will constitute, with that of Dabrowa, now under construction, a single regional system for the whole of the coal-basin, with its 670,000 inhabitants.

The system will comprise land cables totalling 92 kilometres. It will include 14 automatic exchanges, 3 of which—at Katowice, Chorzow and Sosnowiec—are junction exchanges; the other 9 auxiliary exchanges connect directly with their respective junction exchanges. The total capacity of the system actually installed is 16,400 numbers. There are at present, in the coal-basin system, about 10,800 subscribers.

During the six-year period envisaged for the modernisation of the telephone systems, the following works are to be carried out :

| | Zloty |
|---|------------------|
| 1. Automatic exchanges and urban systems with a total capacity of about 44,300 numbers, at an expenditure of..... | 39,313,000 |
| 2. Inter-urban exchanges, comprising a total of 885 circuits and 203 posts, at an expenditure of..... | 4,028,500 |
| 3. Regional systems, comprising a total of 150 kilometres of cables, at an expenditure of..... | <u>7,400,000</u> |
| Total... | 50,741,500 |

B. LAYING OF UNDERGROUND CABLES FOR TELEPHONIC AND TELEGRAPHIC COMMUNICATIONS.

Since January 1st, 1929, the laying of the Warsaw-Cieszyn cable has been completed, with branches to Ruda Śląska and Cracow, over a distance of about 560 kilometres at a cost of 54 million zloty.

The cable extends, by way of Łowicz, Łódź, Piotrków, Częstochowa, Mysłowice k/Katowice, Bielsko, Cieszyn, as far as the Czechoslovak frontier; at Mysłowice, it branches to Cracow, on the one hand, and through Katowice and Ruda Śląska in the direction of the German frontier, on the other.

The cable thus connects Warsaw with the principal industrial centres—namely, the region of Łódź, where the textile industry is concentrated—and the heavy industry centres of Dąbrowa, Upper Silesia, and Cracow, and also ensures communications, through the Czech and German systems, with the States to the west and south of Poland.

At present, the Warsaw-Towicz-Gdynia-Danzig cable is under construction, with a branch Toruń-Bydgoszcz, totalling about 450 kilometres. The estimated cost is 22½ million zloty. It is expected that the works will be completed in 1938.

The cable will pass by way of Towicz, Kutno, Kroszowice, Włocławek, Toruń, Grudziądz, Starogard, Gdynia, Danzig. At Toruń, there will be a branch to Bydgoszcz.

The cable will connect Warsaw and the principal industrial centres with the ports of Gdynia and Danzig, and, by linking up with the German system at Danzig, it will carry part of the communications with the States to the north of Poland.

It is also proposed, in the east, to lay cables connecting up Warsaw-Białystok-Baranowicze-U.S.S.R. frontier and Białystok-Grodno-Wilno-Lithuanian frontier. The total length of these cables will be about 850 kilometres. The cost of laying them is estimated provisionally at 40 million zloty.

This cable system will connect Warsaw with the agricultural region of Wilno, and will carry transit communications between Western and Southern Europe on the one hand, and the U.S.S.R. and the Baltic States on the other.

C. CONSTRUCTION OF BUILDINGS.

Since 1929, buildings have been constructed of the approximate cubic content of 409,000 cubic metres, to the total value of about 33 million zloty (see Table 1).

Buildings are under construction of roughly 82,000 cubic metres, to the approximate value of 4,500,000 zloty (see Table 2).

The construction is also contemplated of new buildings of 269,000 cubic metres, to the value of 14,500,000 zloty (see Table 3).

The total value of the construction work carried out since 1929 and that in process of execution, or in contemplation in the near future, amounts, in round figures, to 52 million zloty, with a total cubic content of 760,000 cubic metres.

II. *Administrative Methods followed for the Execution of the Works.*

The works relating to the underground cable system and the construction of buildings have been handed over under tender to private undertakings, which are executing them on account of the Polish Posts, Telegraphs and Telephones, a State undertaking under the permanent supervision of the Ministry of Posts and Telegraphs and of its organs.

III. *Methods employed for financing the Various Works.*

The construction of the Warsaw-Cieszyn cable has been financed partly out of ordinary budgetary credits and partly by means of foreign loans.

The financing of the construction of the Warsaw-Gdynia cable is by means of ordinary

budgetary credits; for the construction of the Eastern cable, the method has not yet been decided.

The expenditure on the construction of buildings is covered by budgetary credits; for the construction of automatic exchanges, however, the expenditure is met partly by foreign loans.

Table 1.
WORKS COMPLETED SINCE 1929

| No. | Locality | Description of buildings | Contents in cubic metres |
|-----|--|--|--------------------------|
| 1 | Bedzin..... | Posts and Telegraphs Office | 13,610 |
| 2 | Boryslaw..... | " " | 10,230 |
| 3 | Brzesc n/B. | " " | 8,890 |
| 4 | Czestochowa..... | " " | 23,770 |
| 5 | Dabrowa Górnicza .. | " " | 7,310 |
| 6 | Gdynia 5..... | " " | 1,130 |
| 7 | Gdynia 1..... | " " | 27,840 |
| 8 | Gdynia 4..... | " " | 4,200 |
| 9 | Katowice..... | " " | 14,280 |
| 10 | Kalisz..... | " " | 5,860 |
| 11 | Cracow..... | Premises for packing parcels | 3,400 |
| 12 | Cracow..... | Raising of the Posts and Telegraphs Office | 13,420 |
| 13 | Lublin..... | Station offices | 17,810 |
| 14 | Lwów..... | " " | 34,070 |
| 15 | Towicz..... | Amplification station | 3,490 |
| 16 | Mikolów..... | Posts and Telegraphs Office | 5,890 |
| 17 | Orlowo Morskie..... | " " | 3,030 |
| 18 | Poznan..... | Exhibition pavilion | 2,200 |
| 19 | Radom..... | Telegraphs Office | 7,230 |
| 20 | Radom-Wacyn..... | Wireless telegraphy office | 6,180 |
| 21 | " " | Dwelling-house | 3,340 |
| 22 | Stolpce..... | Station offices | 12,580 |
| 23 | Sandomierz..... | Posts and Telegraphs Office | 4,860 |
| 24 | Szopienice..... | " " | 6,050 |
| 25 | Trzebinia..... | " " | 4,430 |
| 26 | Warsaw-Praga..... | Garage | 19,360 |
| 27 | Wilno..... | Exhibition pavilion | 310 |
| 28 | Warsaw..... | Telegraphic and telephonic communications office | 112,560 |
| 29 | Zebrzydowice..... | Dwelling-house | 4,420 |
| 30 | Zakopane..... | Posts and Telegraphs office : raising and transformation | 6,370 |
| 31 | Warsaw..... | Laboratory attached to the telephonic apparatus factory | 6,800 |
| 32 | Falenica, Józefów Anin, Otwock..... | Automatic exchange | 1,000 |
| 33 | Grudziadz, Torun, Plock i Kielce..... | " " | 5,400 |
| 34 | Szarlej..... | Posts and Telegraphs Office | 5,100 |
| 35 | Bernerowo..... | Dwelling-house | 4,000 |

Table 2.
WORKS IN PROCESS OF EXECUTION.

| No. | Locality | Description of buildings | Contents in cubic metres |
|-----|-----------------|-----------------------------|--------------------------|
| 1 | Otwock | Posts and Telegraphs Office | 5,000 |
| 2 | Sokółka | " " | 2,300 |
| 3 | Równe | " " | 12,600 |
| 4 | Poryck | " " | 760 |
| 5 | Pinsk | " " | 7,000 |
| 6 | Iwonicz | " " | 1,300 |
| 7 | Przemysl | " " | 8,000 |
| 8 | Krynica | " " | 10,800 |
| 9 | Sosnowiec | " " | 8,500 |
| 10 | Wloclawek | " " | 11,900 |
| 11 | Warsaw I | Construction of a pavilion | 12,000 |
| 12 | Bernerowo | Dwelling-house | 1,500 |

Table 3.
WORKS CONTEMPLATED.

| No. | Locality | Description of buildings | Contents in cubic metres |
|-----|----------------------------|--|--------------------------|
| 1 | Warsaw 2 | Station offices | 150,000 |
| 2 | Warsaw-Praga | Posts and Telegraphs Office | 15,000 |
| 3 | Warsaw | Dwelling-house and depots | 10,800 |
| 4 | Ciechocinek | Posts and Telegraphs Office | 5,200 |
| 5 | Bydgoszcz | Station offices | 9,000 |
| 6 | Dziedzice | " " | 3,600 |
| 7 | Krosniewice | Posts and Telegraphs Office and amplification station | 2,000 |
| 8 | Tódz 3 | Station offices | 11,300 |
| 9 | Kowel | Posts and Telegraphs Office | 8,000 |
| 10 | Lida | " " | 8,000 |
| 11 | Baranowicze | " " | 9,000 |
| 12 | Nowy Targ | " " | 3,600 |
| 13 | Luck | " " | 10,000 |
| 14 | Wlodzimierz Wolynski | " " | 4,000 |
| 15 | Gdynia nadbudowa | " " | 10,000 |
| 16 | Gdynia-Oksywia | " " | 1,500 |
| 17 | Kazimierz Dolny | " " | 1,500 |
| 18 | Tarnopol | Construction of an annex | 2,000 |
| 19 | Puck | Posts and Telegraphs Office | 4,000 |

SWEDEN.

[*Translation.*]

PUBLIC WORKS CARRIED OUT IN THE PERIOD 1929 TO 1934 WITH A VIEW TO COMBATING UNEMPLOYMENT.

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I. GENERAL SURVEY.

The origin and development of the unemployment crisis, the beginning of which in 1914 coincided with the outbreak of the great war, were such that the State felt bound to take special and immediate steps to assist in combating the evil. Accordingly, a Government organ known as the Central Unemployment Commission (*Statens Arbetslöshets-kommission*) was set up to organise and direct *action for the relief of the unemployed*. Communal unemployment committees were also set up to encourage or initiate local measures designed to prevent unemployment or attenuate its effects. This organisation has since been maintained.

In accordance with principles adopted for this relief action, the primary aim of the steps to be taken by the public authorities was to provide work. Only where no work could be provided was pecuniary relief to be granted out of public funds. The intention was that the unemployed should, as far as possible, earn their own livelihood by participating in the execution of public works. These works—known as reserve works—were divided into two main groups : State reserve works and communal reserve works subsidised by the State.

State reserve works.—The Central Unemployment Commission, which initiated and directed the execution of *State reserve works*, was required, in *selecting such works*, to follow certain principles—namely :

(1) The work must be of utility to the State, the commune or some other public institution, and must be justifiable on economic or cultural grounds, without, however,

being of such urgency that it would, in any case, have had to be carried out in the near future;

(2) The amount of wages paid must constitute a relatively large proportion of the total cost of the work;

(3) The work must be such that any worker of normal capacity could be employed thereon;

(4) The work must be such as could be continued during the winter;

(5) There must be a possibility of undertaking, abandoning, extending or reducing the work, according to the extent of unemployment.

Generally speaking, reserve works best fulfil these conditions, and so they were usually selected. They include the construction of roads, railways, canals, harbours, hydro-electric installations and log-floating channels, together with land reclamation and forest improvement. In addition to these undertakings, which could be justified on economic grounds, other work was also undertaken that appeared to be of cultural utility, such as the laying-out of sports grounds and the preservation of historical monuments.

Whenever the Central Unemployment Commission concluded that a request for the *employment of out-of-work persons* on State reserve works was justified, it decided how many unemployed persons from each commune could be engaged for the work (basing its decision on a computation of the definite requirements in the light of local labour market conditions), and also arranged their allocation. It then reported to the Communal Unemployment Committee, stating the time-limit within which its offers of employment must be accepted and the obligations and conditions of labour involved.

As regards *the wages payable for reserve works*, the public authorities decided, in principle, that these should be less than the *minimum wage which an unskilled labourer* could currently obtain under open market conditions, but should be such as to enable the persons concerned to live on the sums thus fixed.¹

Communal reserve works subsidised by the State.—In order to encourage communes to undertake and carry out public works which, though not of immediate necessity, would ultimately have to be undertaken in the interest of the commune's subsequent development, the State made grants towards the execution of these works, known as *State-subsidised communal reserve works*. The object of these State subsidies was to compensate the communes for the burden imposed on them through payment of interest on account of the execution of the work in anticipation. For its part, the State was spared the expense it must have incurred had it been obliged to pay relief to the unemployed or to employ the latter on work carried out on its own account.

State-subsidised communal reserve works were subject to the same rules as State reserve works. Before they could be undertaken, the commune had to apply to the Central Unemployment Commission for permission to carry them out with the aid of a State subsidy. In the request, the nature and extent of the work had to be explained (by submission of plans and estimates), together with the programme of execution, the method of financing it, its importance to the commune and its value as regards provision of work for the unemployed, the time it would be estimated to require as ordinary work, the financial situation of the commune, etc. In granting authorisation, the Central Unemployment Commission fixed the amount of the subsidy to be granted by the State and the rate of wages which could be paid to the workmen. Until June 1928, the subsidy was paid for the number of working-days during which work was provided for the unemployed, and did not exceed, per day per worker, the sum which the State would

¹ For the rules at present in force, see pages 210, 211 and 216.

have had to pay the commune as a subsidy if unemployment relief had been granted to the same workers. After that date, the subsidy was fixed at a certain percentage of the wage to be paid, as decided by the Commission, in each commune authorised to undertake such work with the financial aid of the State. For reserve works of this category, the guiding principle was that wages should be fixed in accordance with the same rules as those applicable to State reserve works.

The Commission determined the maximum number of unemployed who could, in each particular case, be occupied on work of this kind executed in the commune.

“Anticipatory” works (Beredskapsarbeten).—The defects of the above system, to which we shall refer later, led the public authorities to decide in 1931 to make a few slight changes. For each of the budgetary years 1931-32 and 1932-33, the Chambers placed at the Government’s disposal a special credit for the execution of public works intended to relieve unemployment, the money to be spent on works which in any case would sooner or later have had to be executed at public expense and through some central authority, and for which, owing to their nature, the Riksdag would, in normal times, have voted the credits demanded by the Government. These “anticipatory” works were not subject to any special rules, but the authorities concerned were allowed to carry them out in accordance with the methods followed for other works. Only works that would ordinarily have been executed by or through the State authorities were allowed to be undertaken as “anticipatory” work. The credits for the purpose had, moreover, to be used exclusively for work which could be completed without the Riksdag being obliged to vote new credits in a subsequent financial year.

Defects of the system.—In the autumn of 1930, as the effects of the latest crisis became more noticeable, it also became clearer that there were certain inherent defects in the system of unemployment relief previously followed.

As stated above, the reserve works to be carried out through the Central Unemployment Commission or by means of State subsidies had to be such as would not, as far as could be foreseen, have to be carried out under open-market conditions in the next few years. This principle obviously limited the choice of works to be undertaken. It was also thought that there was no call to devote—and that by way of preference—both labour and capital to work the execution of which did not seem likely to become imperative in the near future. The objections to the system then in force also increased proportionately to the number of unemployed in need of relief, and the sums which consequently had to be devoted to that end. As a result of increased unemployment, the system tended to place a disproportionate burden on the communes in which unemployed were domiciled. The measures taken by the State to combat unemployment proved, in fact, to be quite inadequate, so that the communes were forced to bear a very large part of the cost of unemployment relief without receiving any subsidy from the Government.

Another and a serious criticism levelled against the policy previously followed related to the form of the relief accorded to the unemployed. In spite of the rule which had been laid down, the unemployed, in far too many cases, had been given pecuniary aid instead of work. From the point of view of the unemployed also, the above-mentioned defects—namely, the insufficiency of the subsidies and the totally inadequate extent to which it was possible to afford relief in the form of work—were very appreciable.

With the accentuation of the depression, all these defects became more noticeable. It therefore seemed indispensable to effect a radical revision of the policy hitherto pursued by the State in the matter of unemployment relief. After the necessary enquiries had been conducted in the autumn of 1932, the Government submitted to the Riksdag, at its 1933 session, a vast and comprehensive plan of campaign against the economic crisis, based on new principles.

The 1933 programme.—This programme provided that, in the place of reserve works, the State should arrange to have large-scale public works set in hand immediately. The object was to provide an effective remedy for the lack of employment and, at the same time, to stimulate initiative and also trade and industry in general.

The 1933 programme laid down the principle that more important works should be undertaken in preference to less important ones, and that no category of works should be excluded in principle. It was hoped that, by these means, work for which ruling market prices were paid would be provided for a large number of the genuine unemployed. The aim was also to combat unemployment indirectly by positive measures calculated to stimulate economic life. An important part of the programme consists in a series of projects by which the State accords financial aid to industry, handicrafts, agriculture and forestry.

It was believed that these measures would increase the purchasing-power of various categories of the population and thus help tradesmen and producers to increase their sales. This would, in turn, effectively help to remedy the economic stagnation and open up the way to a resumption of business.

Further, the programme made provision for affording pecuniary relief to unemployed persons unable to find work and so earn their living. It was still necessary, therefore, to vote credits for unemployment relief.

Decision of the Riksdag in 1933.—At its 1933 session, the Riksdag, though maintaining the system of reserve works in addition to public works executed under open-market conditions, approved the main lines of the above programme. Nevertheless, it amended the rates of wages payable for reserve works in such a way as to bring them more closely into line with the wages earned by manual labourers in the open market. The Chambers also adopted the provision in the Government proposal to the effect that State measures for the relief of unemployment should be better adapted to the actual needs experienced in the individual localities.

1934 programme and decision of the Riksdag.—The general trend of unemployment policy given by the Riksdag's vote in 1933 was maintained in the Government programme for 1934. This programme, too, accords a large place to public works to be carried out under open-market conditions. It also maintains reserve works and still further limits the granting of pecuniary aid.

II. SURVEY OF THE BUDGET.

Financing.—As already stated, the unemployment policy adopted since the financial year 1933-34 differs in several respects from that previously followed. Moreover, since the financial year 1933-34, new principles have been applied for the financing of unemployment credits.

In accordance with a fundamental and long-established rule of Swedish budgetary policy, recourse to loans is permissible only for the purpose of financing credits voted for remunerative objects. In the 1933-34 budget—and also in the budget for the current year—the application of this rule is extended so as to cover the raising of loans for works on which no immediate return could be expected. A special fund, of which the non-remunerative capital must be written off in a short period under special conditions, has been allocated to these credits, which are financed by means of loans. For the financial year 1933-34, the sums which were raised by loan and were paid into that fund amounted in round figures to 168 million crowns. For purposes of comparison, it should be noted that, for the current year, they will amount to 130 million crowns. Certain special sources of revenue have been earmarked for the amortisation of the non-remunerative

capital of this fund—namely, for the financial year 1933-34, the yield of the estate duty and the duty on donations, estimated at 25 million crowns, and, for the current year, in addition to the yield of these same duties, an extraordinary tax on income and property which is estimated to produce 8 million crowns. As a sum of 3 million crowns has been added to the above amounts, the total sum available for amortisation purposes during the current year will be 36 million crowns. If the proceeds of the above-named sources of revenue are allocated to the same purpose in future years, it is anticipated that the amortisation of the credits financed by loan for the financial years 1933-34 and 1934-35 will be completed in 1940.

Unemployment budget.—The class of credits allocated for the financial year 1933-34 to the relief of unemployment, and financed as stated above, has been grouped in the present survey under the head “unemployment budget”. The other credits in the State budget come under the head “ordinary budget”. Consequently, the unemployment budget, in the sense in which it is used here, appears for the first time in the State budget for 1933-34. It is also found in the State budget for 1934-35. It should be noted, however, that credits corresponding to those contained in the unemployment budget, but for inconsiderable amounts, already figure in the ordinary budget for one or more of the financial years 1929-30 to 1932-33. This applies, for instance, to the credits—mentioned in the previous section—which were voted for each of the financial years 1931-32 and 1932-33 for the execution of “anticipatory” works for the relief of unemployment, and to the credit provided in the budget for the year 1931-32 for occasional works for the upkeep of private forests.

Table of credits.—Table I relates to credits available, during the period covered by the present survey, for the execution of public works. It also includes credits earmarked for the relief of unemployment which could not be described as credits for public works. The sums have been entered in round figures, so that they may be shown in hundreds.

The following observations are also called for with regard to this table.

During the financial years 1929-30 to 1932-33, sums allocated to “reserve” works and to unemployment pay or allowances in respect of rent, the organisation of courses, the voluntary labour service, etc., were charged to a credit in the ordinary budget known as the “unemployment relief” credit. It was not until the financial year 1933-34 that a special credit for such works was voted for the first time, while expenditure for the other purposes mentioned above continued to be charged to the unemployment relief credit. The latter was still included in the ordinary budget, whereas the special credit was inserted in the unemployment budget. Consequently, columns 5 and 9 added together show the sums available for each of the financial years 1929-30 to 1932-33 under the unemployment relief credit.

Table 1.

CREDITS FOR PUBLIC WORKS AND OTHER CREDITS RELATING TO UNEMPLOYMENT (1929-30 TO 1933-34).

| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------------------|--|---------------------|-------------------------|-------------------|---------------------|-------------------------|
| Budgetary year | Credits for public works | | | | | |
| | Carried out under open-market conditions | | | " Reserve " works | | |
| | Ordinary budget | Unemployment budget | Total (columns 2 and 3) | Ordinary budget | Unemployment budget | Total (columns 5 and 6) |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 1929-30... | 88,137,900 | — | 88,137,900 | 4,096,700 | — | 4,096,700 |
| 1930-31... | 102,545,500 | — | 102,545,500 | 7,997,600 | — | 7,997,600 |
| 1931-32... | 141,820,500 | — | 141,820,500 | 22,097,400 | — | 22,097,400 |
| 1932-33... | 142,923,600 | — | 142,923,600 | 38,410,300 | — | 38,410,300 |
| 1933-34... | 142,726,400 | 79,821,400 | 222,547,800 | — | 60,000,000 | 60,000,000 |
| Total ... | 618,153,900 | 79,821,400 | 697,975,300 | 72,602,000 | 60,000,000 | 132,602,000 |

| 1 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|------------------|--------------------------------|--|---------------------|---|---|--|---------------------------------|
| Budgetary year | Total credits for public works | Other credits relating to unemployment | | | Total of ordinary budget (columns 2, 5 and 9) | Total of unemployment budget (columns 3, 6 and 10) | Grand total (columns 12 and 13) |
| | | Ordinary budget | Unemployment budget | Total of other credits (columns 9 and 10) | | | |
| | | | | | | | |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 1929-30 | 92,234,600 | 1,903,300 | — | 1,903,300 | 94,137,900 | — | 94,137,900 |
| 1930-31 | 110,543,100 | 802,400 | — | 802,400 | 111,345,500 | — | 111,345,500 |
| 1931-32 | 163,917,900 | 6,002,600 | — | 6,002,600 | 169,920,500 | — | 169,920,500 |
| 1932-33 | 181,333,900 | 30,389,700 | — | 30,389,700 | 211,723,600 | — | 211,723,600 |
| 1933-34 | 282,547,800 | 29,800,000 | 28,281,000 | 58,081,000 | 172,526,400 | 168,102,400 | 340,628,800 |
| Total ... | 830,577,300 | 68,898,000 | 28,281,000 | 97,179,000 | 759,653,900 | 168,102,400 | 927,756,300 |

The sum of 28,281,000 crowns shown in column 10 of the table is distributed among the following credits :

| | |
|---|-------------------|
| | Crowns |
| State orders | 10,700,000 |
| Loans for the encouragement of private initiative..... | 10,000,000 |
| Subsidies for the encouragement of private initiative..... | 3,500,000 |
| Advances for the assistance of private railways..... | 1,500,000 |
| Ice-breaking vessel to carry out research and surveillance work on behalf of the fishing industry..... | 650,000 |
| Various measures connected with forestry, etc..... | 475,000 |
| Construction of a new lightship..... | 367,000 |
| Purchase of material for the pilotage service..... | 75,000 |
| Research and preliminary work with a view to mining operations, etc., in the province of Västerbotten..... | 364,000 |
| Construction of roads connecting the metalliferous region of Adak-Kuorbeavare with Slagnäs, and Bjurträsk with Orträsk and Högkulla, in the province of Västerbotten..... | 650,000 |
| Total... | 28,281,000 |

In view of the purpose to which they are allocated, certain of the foregoing credits can barely be regarded as intended for "reserve" works. Such are, for instance, the credits for State orders and loans or subsidies for the encouragement of private initiative. Nevertheless, they possess one common feature, inasmuch as they all aim at preventing the suspension or undue restriction of industrial undertakings in progress by providing employment or ensuring the financial assistance of the State. It is to be presumed that the Riksdag would not have voted credits for these purposes unless the position of the labour market had appeared to justify such credits. As, however, they are not intended for the execution of public works, it was considered necessary to include them under the head "other credits relating to unemployment". For the financial year 1934-35, they amount to a total of 18,710,000 crowns.

Credits for public works have been divided in the table into two main groups—credits for public works carried out under open-market conditions and credits for "reserve" works. No comment on this division appears necessary.

Column 2 relates to credits in the ordinary budget available for the execution of public works carried out under open-market conditions. The latter are dealt with in Section III below. We need only add that, in principle, these credits were not voted on account of unemployment, though in some cases the amount of the credit was fixed with the idea that it would enable more of the unemployed to obtain work. This applies, for example, to credits voted for the construction, improvement and upkeep of roads, land settlement and the reclamation of pastureland on farms not fully developed, drainage works in forests, electrification of State railways, etc. As regards the amount of the credits shown for the financial years 1931-32 and 1932-33, the credit of 3 million crowns for "anticipatory" works provided for each of those years and the credit of 2 million crowns for certain occasional works for the upkeep of private forests voted for the year 1932-33 are included in column 2. In view of the method by which they are financed, the corresponding credits for the year 1933-34 come under the unemployment budget.

Column 3 shows the amount allocated under the unemployment budget to the execution of public works carried out under open-market conditions. Full particulars of these works are given in Section III, A. It need only be noted, for purposes of comparison, that, for the financial year 1934-35, the credits in the unemployment budget provided for this purpose amount to 64,687,250 crowns. As the table shows, they amounted for the financial year 1933-34 to 79,821,400 crowns.

As regards the credits for "reserve" works shown in columns 5 to 7 of the table, full particulars are given in Section IV of the present survey. Column 6 relates to the credits voted for these works in the 1933-34 budget. For the years 1929-30 to 1932-33, column 5 shows the amount of the expenditure, whereas the other columns of the table show the amount of the credits voted. This irregularity, which is of little consequence, is due to the fact that a special credit for "reserve" works was only voted for the first time in 1933-34. It therefore appeared necessary to deal with the financial years 1929-30 to 1932-33 in the manner stated above, in order to furnish, from the point of view of credits, data relating to "reserve" works carried out during that period. Lastly, for the financial year 1934-35, the credit of 46 million crowns voted for the execution of those works will, according to the present estimates, be insufficient.

III. PUBLIC WORKS EXECUTED UNDER OPEN-MARKET CONDITIONS.

This section deals with public works executed under open-market conditions for which credits have been provided in the unemployment budget and works financed out of credits in the ordinary budget.

A. *Public Works borne on the Unemployment Budget.*

Table I shows that the total credits included in the unemployment budget for the execution of public works under open-market conditions amount to 79,821,400 crowns (column 3). This total is divided among the various credits as follows :

| | Crowns |
|---|------------|
| " Anticipatory " State works..... | 3,000,000 |
| " Anticipatory " communal works..... | 8,500,000 |
| Grants in aid of dwelling-house construction..... | 23,000,000 |
| Road and railway crossings at different levels (overhead- and subways)..... | 7,000,000 |
| Bridges and harbours..... | 6,000,000 |
| Malung-Vansbro line of the State Railways..... | 800,000 |
| Casual work for the upkeep of private forests..... | 5,000,000 |
| Subsidies for plant for storing fertilisers..... | 700,000 |
| Loans for plant for storing fertilisers..... | 500,000 |
| Land reclamation work to combat unemployment..... | 4,000,000 |
| Subsidies for land-drainage works..... | 1,000,000 |
| Construction of roads and log-floating channels in private forests... | 500,000 |
| Loan Fund for workers' small-holdings..... | 7,500,000 |
| State buildings..... | 12,321,400 |
| Total... | 79,821,400 |

Rules governing the allocation of credits.—Briefly, the following are the rules governing the use of the above credits.

In the case of "*anticipatory*" *Government works*, the rules are the same as those applied in the financial years 1931-32 and 1932-33 to the "*anticipatory*" works for combating unemployment described in Section I.

The credit for "*anticipatory*" *communal works* refers, as its name suggests, to works executed for strictly communal purposes. They must be of such a kind that they cannot be executed as State-subsidised communal reserve works, or, as a rule, with the help of a State subsidy. The contribution to "*anticipatory*" communal works is given either in the form of a non-interest-bearing loan that is not written off for the first five years, or a non-redeemable grant. Applications must be sent to the Government.

The credit for *grants in aid of dwelling-house construction* refers to the erection of dwelling-houses both in towns and similar centres and in the country.

The provisions governing the former are laid down in the Decree of September 16th, 1933 (Svensk författningssamling No. 558). The State grants loans for the construction of buildings chiefly intended for dwelling purposes. No grants can be made for buildings which would probably be erected in the near future without Government aid, nor for those built directly by the commune concerned. The amount of the loan must not exceed one-fifth of the advance obtained on the open market and forming a first charge on the property. It must also not exceed 15% of the value of the property, as determined in certain specific circumstances, or of its taxable value after the building is completed. Matters connected with these loans are dealt with by an office specially set up for the purpose—the State Building Loan Department.

The provisions governing buildings for dwelling purposes to be erected in rural districts are laid down in the Decree of June 30th, 1933, concerning the improvement grants and loans for new buildings designed to encourage the building industry in rural districts (Svensk författningssamling No. 473) and in the Decree of September 16th, 1933, extending the application of the said decree (Svensk författningssamling No. 545). Other provisions will be found in the Decrees of June 30th and September 28th, 1934 (Svensk författningssamling Nos. 411 and 486).

Improvement loans are granted for carrying out the necessary sanitary repairs and other housing improvements, and also, in certain circumstances, for building dwelling-

houses to replace others which are in bad condition. These grants must, as a rule, be less than 50% of the estimated cost of the works and not exceed 1,000 crowns per unit of accommodation.

Loans for new constructions are granted for the same class of buildings as the grants above referred to. They must not exceed 70%, or, if the improvement grant is included, 80% of the cost of construction. The maximum figure has been fixed at 3,000 crowns, or, where a grant is also made, 2,000 crowns per unit of accommodation.

This kind of action is carried out through the communal committees of public health, the small holdings committees of agricultural associations and the State Small-holdings Department.

The credits above mentioned for "anticipatory" works for combating unemployment voted for the 1931-32 and 1932-33 financial years have been partly used to finance the construction of *overhead and underground crossings* (road and railway). A special credit for this purpose has been arranged for the 1933-34 financial year. To this credit is charged the whole cost of these works, except a quarter of any necessary land transfer charges, which amount is payable by the proprietors responsible for the upkeep of the road. The railway concerned (State or private) also pays a certain amount, usually about 10% of the cost of the work.

The use of the *credit for bridges and harbours* is subject to the usual rules governing the grant of State subsidies for the construction of bridges and harbours as laid down in the Decree of May 31st, 1934, on State subsidies for construction of public roads, etc. (Svensk författningssamling No. 207), and the Decree of August 10th, 1928, concerning State subsidies for the construction, improvement and upkeep of public harbours and navigable waterways (Svensk författningssamling No. 328). This credit is therefore supplementary to those provided in the ordinary budget for this purpose.

The credit for the *Malung-Vansbro line of the State Railways* is a continuation of the ordinary budget credits voted for the financial years 1931-32 and 1932-33. Amounts have also been drawn for the same purpose on the credits for "anticipatory" works to combat unemployment, voted for the same financial periods.

The provisions governing the employment of the credit for *certain casual works for the upkeep of private forests* are given in the Decree of June 30th, 1933, as amended by the Decrees of September 16th, 1933, and May 24th, 1934 (Svensk författningssamling Nos. 437, 548 and 198). Further provisions were enacted in a Circular of June 30th, 1934 (Svensk författningssamling No. 438). This credit has a double purpose: to create more openings for employment in forestry and to encourage the upkeep of forests. The credit is drawn upon chiefly for subsidies for forest reclamation and silviculture. The subsidies are granted by the competent forestry departments after the Government has, at their request, supplied them with necessary funds. In the case of reclamation works, the subsidies amount to a maximum of 60% of the approved estimated cost; in the case of silviculture, to a maximum of 50%.

The credit earmarked for *loans for plant for storing fertilisers* is used under the same conditions as the loan fund for storage of fertilisers. From this fund, created in 1918, agricultural associations can obtain from the State loans which enable them, in turn, to make advances for building suitable tanks for the storing of fertilisers and making the necessary arrangements for the same purpose in stables and cowsheds. The provisions on the subject are contained in the Decree of July 11th, 1918, concerning the terms for loans from the loan fund for storage of fertilisers (Svensk författningssamling No. 576), as amended by the Decrees of June 6th, 1925, June 18th, 1927, and May 29th, 1931 (Svensk författningssamling Nos. 186, 241 and 132).

Loans can be granted to the owners or tenants of fields or other cultivated land, irrespective of the area of the property on which the work is to be carried out, or, in the case of tenants, the length of the lease. These loans may not exceed 2,000 crowns, or 75% of the estimated cost of the plant.

The credit for *subsidies for plant for the storage of fertilisers* relates, as its name shows, to non-refundable contributions. These may not exceed 25% of the estimated cost of the plant. If a loan has also been made, the total of the loan and the subsidy may not exceed 2,000 crowns, or 75% of the cost of the plant. The provisions on the subject, which are substantially similar to those governing loans, are contained in the Decree of June 30th, 1933, on State subsidies for plant for the storage of fertilisers, as amended by the Decree of May 24th, 1934 (Svensk författningssamling Nos. 435 and 189).

Provisions governing the use of the credit for *reclamation works to combat unemployment* were laid down in the Decree of June 30th, 1933 (Svensk författningssamling No. 436). The subsidies are granted by the Government. They must not exceed 50% of the approved cost of the works, and are further subject to the conditions laid down for the grant by the State of subsidies for land-drainage works.

The credit for *subsidies for land-drainage works* relates to the grant by the State of non-repayable subsidies to the owners or tenants of fields or other cultivated land, irrespective of the size of the property on which the work is to be done or, in the case of tenants, of the length of the lease. The subsidies are allocated by agricultural associations, to which applications have to be sent. They amount to a maximum of 25% of the total cost of the work to be done. There are also special regulations for cases in which the party concerned has also been given a loan for land-drainage works. The relevant provisions on the subject are contained in the Decree of June 30th, 1933, concerning State subsidies for land-drainage works (Svensk författningssamling No. 434).

The use of the credit for *construction of roads and log-floating channels in private forests* is governed by the provisions of the Decree of September 16th, 1933 (Svensk författningssamling No. 549) and a circular of the same date (Svensk författningssamling No. 550). On the application of the Forests Administration, the Government decides the amount to be allocated to that Administration for distribution as State subsidies. Subsidies may be granted only for undertakings involving either the construction of new roads or log-floating channels or such correction or improvement of existing roads or log-floating channels as may be necessary to enable them to fulfil their purposes. The subsidies amount to not more than 25% of the approved cost of the undertaking.

The *Loan Fund for workers' small-holdings* was created in 1933. It provides for the grant, to forest labourers or other persons on a similar footing, of loans enabling them to acquire a small piece of land the cultivation of which outside their ordinary working-hours will yield them a return. It is governed by the Decree of June 14th, 1933, on workers' small-holdings subsidised by the State, as amended by a Decree of June 7th, 1934 (Svensk författningssamling Nos. 331 and 234). The Government grants the loans in question on the application of the communes concerned. The maximum amount of such loans is 6,000 crowns. For repayment purposes, loans are subdivided into redeemable and permanent portions. No interest is payable on the former. When the time-limit for redemption expires, interest is payable on the permanent portion at a rate fixed by the Government. Transactions in connection with these loans are carried out under the supervision of the Small-holdings Department.

As regards *State buildings*, various credits have been included in the different fields covered by the various Ministries. For the sake of clearness, they are brought together here. There are, of course, no legislative regulations regarding their use.

Allocation of credits.—Table 2 shows the allocation of the public works credits in the unemployment budget. The headings used in this table—as in the others—call for certain remarks concerning buildings. The credits for building or improving dwelling-houses in the country are shown in a special column, as are those for the construction of dwelling-houses in towns and similar built-up areas. The heading “Buildings in rural districts, other than dwelling-houses” refers to agricultural buildings. The expression “Buildings for public authorities” refers to buildings intended for administrative services (central or provincial administrations, for instance). Lastly, the heading “Other

Table 2.

TABLE SHOWING THE EMPLOYMENT OF THE CREDITS PROVIDED FOR THE FINANCIAL PERIOD 1933-34 IN

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|-----------------|-----------------|------------|------------------------------|------------|
| Credit and object | Number of works | Comprising | | | |
| | | Works completed | Total cost | Works in course of execution | Total cost |
| | | | Crowns | | Crowns |
| <i>Credit for "anticipatory" State works :</i> | | | | | |
| Public roads (including streets) | 4 | 2 | 11,600 | 2 | 81,500 |
| Basin for ferry | 1 | — | — | — | — |
| Railways..... | 1 | — | — | 1 | 43,000 |
| Canals and other inland waterways (including log-floating channels) | 6 | — | — | — | — |
| Forest improvements | 1 | 1 | 4,000 | — | — |
| Drinking-water-supply or sewerage systems | 3 | — | — | 3 | 146,500 |
| Sea and river ports and fishing harbours..... | 17 | 2 | 32,000 | 14 | 1,208,800 |
| Airports | 2 | 1 | 110,000 | 1 | 135,000 |
| Aerodromes | 4 | 3 | 49,500 | 1 | 29,500 |
| State buildings other than those for public authorities | 9 | — | — | 8 | 446,500 |
| Other works | 20 | 4 | 127,374 | 13 | 463,900 |
| Total... | 68 | 13 | 334,474 | 43 | 2,554,700 |
| <i>Credit for "anticipatory" communal works :</i> | | | | | |
| Public roads (including streets) | 3 | — | — | 1 | 86,500 |
| Water-supply and sewerage systems | 8 | — | — | 7 | 1,106,900 |
| Sea and river ports, fishing harbours | 2 | — | — | 2 | 290,900 |
| Buildings for public authorities | 10 | — | — | 7 | 1,027,550 |
| Other buildings | 114 | 1 | 27,000 | 76 | 6,594,327 |
| Gasworks | 1 | — | — | 1 | 165,000 |
| Total... | 138 | 1 | 27,000 | 94 | 9,271,177 |
| <i>Credit for the encouragement of dwelling-house construction :</i> | | | | | |
| Building and improvement of dwelling-houses in rural districts..... | 15,067 | 1,475 | 1,556,880 | 7,308 | 12,740,604 |
| Building of dwelling-houses in towns and similar built-up areas | 205 | — | — | 131 | 20,236,367 |
| Total... | 15,272 | 1,475 | 1,556,880 | 7,439 | 32,976,971 |
| <i>Credit for crossings at different levels :</i> | | | | | |
| Crossings at different levels..... | 66 | — | — | 53 | 6,340,675 |
| <i>Credit for bridges and harbours :</i> | | | | | |
| Bridges | 13 | — | — | 13 | 4,353,200 |
| Sea and river harbours, fishing harbours..... | 21 | 3 | 344,900 | 18 | 3,874,000 |
| Total... | 34 | 3 | 344,900 | 31 | 8,227,200 |

Table 2.

THE UNEMPLOYMENT BUDGET FOR THE EXECUTION OF PUBLIC WORKS UNDER OPEN-MARKET CONDITIONS.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------|------------|-------------|--------------------|--------------------|--|------------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works planned but not begun | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| — | — | 93,100 | 93,100 | — | 15,299 | 77,801 |
| I | 34,000 | 34,000 | 34,000 | — | 19,200 | 14,800 |
| — | — | 43,000 | 43,000 | — | 13,000 | 30,000 |
| 6 | 85,500 | 85,500 | 85,000 | — | 28,500 | 57,000 |
| — | — | 4,000 | 4,000 | — | — | 4,000 |
| — | — | 146,500 | 146,500 | — | 79,500 | 67,000 |
| I | 12,600 | 1,253,400 | 1,159,715 | 93,685 | 417,800 | 835,600 |
| — | — | 245,000 | 245,000 | — | 144,550 | 100,450 |
| — | — | 79,000 | 79,000 | — | 30,670 | 48,330 |
| I | 24,000 | 470,500 | 470,500 | — | 235,742 | 234,758 |
| 3 | 47,201 | 638,475 | 638,475 | — | 187,531 | 450,944 |
| 12 | 203,301 | 3,092,475 | 2,998,790 | 93,685 | 1,171,792 | 1,920,683 |
| 2 | 266,500 | 353,000 | 279,720 | 73,280 | 238,480 | 114,520 |
| I | 41,650 | 1,148,550 | 831,750 | 316,800 | 815,490 | 333,060 |
| — | — | 290,900 | 280,000 | 10,900 | 125,100 | 165,800 |
| 3 | 172,641 | 1,200,191 | 560,805 | 639,386 | 690,337 | 509,854 |
| 37 | 2,273,098 | 8,894,425 | 5,756,440 | 3,137,985 | 5,252,999 | 3,641,426 |
| — | — | 165,000 | 33,000 | 132,000 | 115,000 | 50,000 |
| 43 | 2,753,889 | 12,052,066 | 7,741,715 | 4,310,351 | 7,237,406 | 4,814,660 |
| 6,284 | 9,626,231 | 23,923,715 | 11,109,416 | 12,814,299 | 14,365,899 | 9,557,816 |
| 74 | 11,041,828 | 31,278,195 | 4,640,639 | 26,637,556 | 18,766,917 | 12,511,278 |
| 6,358 | 20,668,059 | 55,201,910 | 15,750,055 | 39,451,855 | 33,132,816 | 22,069,094 |
| 13 | 1,741,500 | 8,082,175 | 7,082,675 | 999,500 | 3,232,870 | 4,849,305 |
| — | — | 4,353,200 | 3,059,600 | 1,293,600 | 2,100,000 | 2,253,200 |
| — | — | 4,218,900 | 2,923,040 | 1,295,860 | 1,626,100 | 2,592,800 |
| — | — | 8,572,100 | 5,982,640 | 2,589,460 | 3,726,100 | 4,846,000 |

Table 2 (continued).

TABLE SHOWING THE EMPLOYMENT OF THE CREDITS PROVIDED FOR THE FINANCIAL PERIOD 1933-34 IN

| 1 | 2 | 3 | 4 | 5 | 6 |
|--|-----------------|-----------------|--------------|------------------------------|-----------------------|
| Credit and object | Number of works | Comprising | | | |
| | | Works completed | Total cost | Works in course of execution | Total cost |
| <i>Credit for the Malung-Vansbro Line of the State Railways :</i> Railways..... | 1 | — | Crowns — | 1 | Crowns 800,000 |
| <i>Credit for casual works for the upkeep of private forests :</i> Forest improvements..... | 8,851 | 4,165 | 2,596,271 | 4,523 | 4,694,466 |
| <i>Credit for subsidies for fertiliser-storage plant :</i> Fertiliser-storage plant..... | 4,170 | 982 | 692,372 | 1,844 | 1,191,523 |
| <i>Credit for loans for fertiliser-storage plant :</i> Fertiliser storage-plant..... | 248 | — | — | 237 | 235,074 |
| <i>Credit for land reclamation works to combat unemployment :</i> Reclamation..... | 885 | 112 | 843,540 | 528 | 5,972,960 |
| <i>Credit for subsidies for land-drainage works :</i> Subsoil drainage..... | 3,753 | 1,657 | 1,500,370 | 1,354 | 1,759,020 |
| <i>Credit for construction of roads and log-floating channels in private forests :</i> Forestry improvements..... | 57 | 2 | 2,855 | 47 | 317,082 |
| <i>Credit for Loan Fund for workers' small-holdings :</i> Land settlement..... | 820 | 5 | 15,000 | 545 | 2,550,000 |
| <i>Credit for Government buildings :</i> Buildings for public authorities..... Other buildings..... | 8 16 | — 3 | — 120,600 | 6 10 | 730,000 10,288,800 |
| Total... | 24 | 3 | 120,600 | 16 | 11,018,800 |
| GRAND TOTAL... | 34,387 | 8,418 | 8,034,262 | 16,755 | 87,909,648 |

Table 2 (continued).

THE UNEMPLOYMENT BUDGET FOR THE EXECUTION OF PUBLIC WORKS UNDER OPEN-MARKET CONDITIONS.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------|------------|-------------|--------------------|--------------------|--|------------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works planned but not begun | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| — | — | 800,000 | 800,000 | — | 336,800 | 463,200 |
| 163 | 142,087 | 7,432,824 | 3,267,005 | 4,165,819 | 148,724 | 7,284,100 |
| 1,344 | 854,489 | 2,738,384 | 684,596 | 2,053,788 | 1,369,192 | 1,369,192 |
| 11 | 13,133 | 248,207 | 109,975 | 138,232 | 124,103 | 124,104 |
| 245 | 1,749,160 | 8,565,660 | 3,979,650 | 4,586,010 | — | 8,565,660 |
| 742 | 597,600 | 3,856,990 | 950,000 | 2,906,990 | 1,542,796 | 2,314,194 |
| 8 | 39,276 | 359,213 | 90,140 | 269,073 | 32,396 | 326,817 |
| 270 | 1,350,000 | 3,915,000 | 3,865,000 | 50,000 | 2,515,000 | 1,400,000 |
| 2 | 334,000 | 1,064,000 | 1,064,000 | — | 638,400 | 425,600 |
| 3 | 848,000 | 11,257,400 | 11,257,400 | — | 6,754,440 | 4,502,960 |
| 5 | 1,182,000 | 12,321,400 | 12,321,400 | — | 7,392,840 | 4,928,560 |
| 9,214 | 31,294,494 | 127,238,404 | 65,623,641 | 61,614,763 | 61,962,835 | 65,275,569 |

Table 3.

RECAPITULATORY TABLE, OBJECT OF THE WORKS,

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|-----------------|-----------------|------------------|------------------------------|-------------------|
| Object | Number of works | Comprising | | | |
| | | Works completed | Total cost | Works in course of execution | Total cost |
| | | | Crowns | | Crowns |
| Public roads (including streets) | 7 | 2 | 11,600 | 3 | 168,000 |
| Basin for ferry | 1 | — | — | — | — |
| Bridges | 13 | — | — | 13 | 4,353,200 |
| Railways | 2 | — | — | 2 | 843,000 |
| Crossings at different levels | 66 | — | — | 53 | 6,340,675 |
| Land reclamation | 4,638 | 1,769 | 2,343,910 | 1,882 | 7,731,980 |
| Building and improvement of dwelling-houses in rural districts | 15,067 | 1,475 | 1,556,880 | 7,308 | 12,740,604 |
| Fertiliser-storage plant | 4,418 | 982 | 692,372 | 2,081 | 1,426,597 |
| Land settlement | 820 | 5 | 15,000 | 545 | 2,550,000 |
| Canals and other inland waterways (including log-floating channels) | 6 | — | — | — | — |
| Forest improvements | 8,909 | 4,168 | 2,603,126 | 4,570 | 5,011,548 |
| Drinking-water supply and sewage disposal | 11 | — | — | 10 | 1,253,400 |
| Sea and river ports and fishing harbours | 40 | 5 | 376,900 | 34 | 5,373,700 |
| Airports | 2 | 1 | 110,000 | 1 | 135,000 |
| Aerodromes | 4 | 3 | 49,500 | 1 | 29,500 |
| Buildings for public authorities | 18 | — | — | 13 | 1,757,550 |
| Building of dwelling-houses in towns and similar built-up areas | 205 | — | — | 131 | 20,236,367 |
| Other buildings | 139 | 4 | 147,600 | 94 | 17,329,627 |
| Gasworks | 1 | — | — | 1 | 165,000 |
| Other works | 20 | 4 | 127,374 | 13 | 463,900 |
| Total... | 34,387 | 8,418 | 8,034,262 | 16,755 | 87,909,648 |

Table 3.

OF THE EXPENDITURE REFERRED TO IN TABLE 2.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------|------------|-------------|--------------------|--------------------|--|------------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works planned but not begun | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 2 | 266,500 | 446,100 | 372,820 | 73,280 | 253,779 | 192,321 |
| I | 34,000 | 34,000 | 34,000 | — | 19,200 | 14,800 |
| — | — | 4,353,200 | 3,059,600 | 1,293,600 | 2,100,000 | 2,253,200 |
| — | — | 843,000 | 843,000 | — | 349,800 | 493,200 |
| 13 | 1,741,500 | 8,082,175 | 7,082,675 | 999,500 | 3,232,870 | 4,849,305 |
| 987 | 2,346,760 | 12,422,650 | 4,929,650 | 7,493,000 | 1,542,796 | 10,879,854 |
| 6,284 | 9,626,231 | 23,923,715 | 11,109,416 | 12,814,299 | 14,365,899 | 9,557,816 |
| 1,355 | 867,622 | 2,986,591 | 794,571 | 2,192,020 | 1,493,295 | 1,493,296 |
| 270 | 1,350,000 | 3,915,000 | 3,865,000 | 50,000 | 2,515,000 | 1,400,000 |
| 6 | 85,500 | 85,500 | 85,500 | — | 28,500 | 57,000 |
| 171 | 181,363 | 7,796,037 | 3,361,145 | 4,434,892 | 181,120 | 7,614,917 |
| I | 41,650 | 1,295,050 | 978,250 | 316,800 | 894,990 | 400,060 |
| I | 12,600 | 5,763,200 | 4,362,755 | 1,400,445 | 2,169,000 | 3,594,200 |
| — | — | 245,000 | 245,000 | — | 144,550 | 100,450 |
| — | — | 79,000 | 79,000 | — | 30,670 | 48,330 |
| 5 | 506,641 | 2,264,191 | 1,624,805 | 639,386 | 1,328,737 | 935,454 |
| 74 | 11,041,828 | 31,278,195 | 4,640,639 | 26,637,556 | 18,766,917 | 12,511,278 |
| 41 | 3,145,098 | 20,622,325 | 17,484,340 | 3,137,985 | 12,243,181 | 8,379,144 |
| — | — | 165,000 | 33,000 | 132,000 | 115,000 | 50,000 |
| 3 | 47,201 | 638,475 | 638,475 | — | 187,531 | 450,944 |
| 9,214 | 31,294,494 | 127,238,404 | 65,623,641 | 61,614,763 | 61,962,835 | 65,275,569 |

buildings" refers to all other buildings (educational establishments, hospitals, communal buildings).

As regards the figures in the table, the following should be observed :

The amount of the State's contributions, shown in column 10 for each credit, is usually less than that made available by the Government for the budgetary year. This is chiefly because the table does not show the amounts put at the disposal of State authorities or other bodies for administrative expenses. Cases have also occurred in which funds supplied have, for one reason or another, not been used. Such amounts also are not shown in the table.

To encourage the erection of dwelling-houses, the Riksdag voted a total amount of 23,000,000 crowns for the financial year 1933-34. The table, however, shows that only 15,750,000 crowns were expended, 11,109,416 crowns being for dwelling-houses in rural districts. The Government, however, put at the disposal of the Economic Committee for this purpose a total amount of 17,350,000 crowns. This difference is due to the fact that, when the table was drawn up, the committees in question had not had at their disposal more than 11,109,416 crowns.

The figures for the credit for land reclamation works to combat unemployment and for the credit for subsidies for land-drainage works show that 3,979,650 and 950,000 crowns respectively have been expended out of these credits for those purposes. Subsidies amounting respectively to 4,586,010 and 2,906,990 crowns were also paid out of "Other funds". The latter figure, however, also includes amounts taken from public funds—namely, from the Loan Fund for reclamation works and the Loan Fund for land-drainage works. The former fund supplied about 2,551,030 and the latter about 1,200,000 crowns.

The same is true of the credit for subsidies for fertiliser-storage plant. Of the figure of 2,053,788 crowns shown as supplied by "Other funds", a total amount of 214,523 crowns represents loans made from the Loan Fund for storage of fertilisers.

In the case of the construction of Government buildings, the expression "provided for but not begun" has been used for works in which actual building operations have not been started. It is therefore possible that preliminary work, drawing-up of plans and designs, etc., is going on.

Finally, the distribution of the total cost between materials and wages has, in many cases, had to be shown as a mere estimate.

Recapitulatory table of allocations.—Table 3 shows how provision has been made for the various objects given in Table 2.

B.—*Public Works borne on the Ordinary Budget.*

Credits voted.—Table 4 shows the various allocations for public works voted in the ordinary budget for the financial years 1929-30 to 1933-34.

The table also shows that the total funds available in the ordinary budget for carrying out public works increased during the period under consideration. Although the figures cannot be considered absolutely accurate, their tendency during the years of crisis is not to reduce but rather to increase the possibilities of carrying out public works within the ordinary budget. This tendency is even more marked in the financial year 1933-34. Indeed, it would appear from the table that the total credits provided for that year are not reduced as compared with the previous year, in spite of the increase in the number of public works for which credits were voted in the unemployment budget.

Credits for "anticipatory" works and for certain casual measures connected with the upkeep of private forests.—The heading "anticipatory works" includes the credits voted for the financial years 1931-32 and 1932-33 for "anticipatory" work for combating

unemployment. The credit provided for the financial year 1932-33 for certain casual measures connected with the upkeep of private forests appears under the heading "forest improvements". Since the unemployment budget for the financial year 1933-34 provides credits corresponding directly to those referred to above, the employment of which has been explained above under letter A, it appeared logical to give the information in Table 5 in respect of the credits for "anticipatory" work and the credit for certain casual measures connected with the upkeep of private forests.

Table 4.

CREDITS FOR PUBLIC WORKS BORNE ON THE ORDINARY BUDGET.

| | 1929-30 | 1930-31 | 1931-32 | 1932-33 | 1933-34 |
|---|------------|-------------|-------------|-------------|-------------|
| | Crowns | Crowns | Crowns | Crowns | Crowns |
| Public roads (including streets) | 53,688,000 | 60,560,000 | 74,370,000 | 82,257,000 | 74,480,500 |
| Railways | 4,000,000 | 4,000,000 | 4,300,000 | 4,400,000 | 4,000,000 |
| Crossings at different levels.. | 500,000 | 575,000 | — | 500,000 | 150,000 |
| Reconstruction of railway stations, etc..... | 3,565,000 | 1,647,000 | 1,990,000 | 1,581,000 | 2,725,000 |
| Land reclamation..... | 2,850,000 | 6,250,000 | 6,350,000 | 4,300,000 | 6,500,000 |
| Building and improvement of dwelling-houses in rural districts | — | — | — | 100,000 | — |
| Other rural buildings..... | — | 850,000 | — | 500,000 | 1,000,000 |
| Fertiliser-storage plant | — | — | 100,000 | 100,000 | — |
| Private roads..... | 350,000 | 500,000 | 550,000 | 540,000 | 560,000 |
| Land settlement | 1,368,275 | 1,328,330 | 1,404,000 | 1,403,900 | 406,400 |
| Canals and other inland waterways (including log-floating channels) | 1,800,000 | 1,500,000 | 500,000 | 324,600 | 200,000 |
| Forest improvements..... | 520,000 | 1,320,000 | 1,250,000 | 3,390,000 | 1,150,000 |
| Drinking-water supply and sewage disposal..... | — | — | 50,000 | — | 70,000 |
| Sea and river ports and fishing harbours..... | 951,900 | 1,050,000 | 1,840,000 | 1,090,000 | 549,500 |
| Airports | 50,000 | 100,000 | 94,000 | 2,600,000 | — |
| Aerodromes | 50,000 | 20,500 | 5,000 | 27,000 | 30,000 |
| Buildings for public authorities | 2,187,300 | 4,119,000 | 3,403,000 | 1,570,000 | 1,351,000 |
| Other buildings..... | 7,298,451 | 8,795,157 | 9,591,900 | 8,505,125 | 979,000 |
| Electrical plant..... | 100,000 | 350,000 | 50,000 | 100,000 | 50,000 |
| Hydro-electric and heating power stations..... | 5,400,000 | 4,300,000 | 5,450,000 | 5,950,000 | 4,325,000 |
| Transmission of motor power. | 2,400,000 | 3,215,000 | 26,300,000 | 19,600,000 | 41,800,000 |
| Telegraph installations..... | 630,000 | 1,041,000 | 250,000 | — | — |
| Telephone installations | 150,000 | 69,700 | — | — | 2,200,000 |
| Postal installations..... | 168,000 | 900,000 | 730,500 | 1,085,000 | 200,000 |
| State "anticipatory" works. | — | — | 3,000,000 | 3,000,000 | — |
| Other works..... | 111,000 | 54,800 | 242,100 | — | — |
| Total... | 88,137,926 | 102,545,487 | 141,820,500 | 142,923,625 | 142,726,400 |

Other credits.—With regard to the other credits mentioned in Table 4, it would not be possible, without a very exhaustive and prolonged investigation, to furnish information corresponding to that given in respect of the credits for "anticipatory" work for combating unemployment and for certain casual measures connected with the upkeep of

Table 5.

TABLE SHOWING THE USE OF THE CREDITS FOR " ANTICIPATORY " WORKS FOR COMBATING
MAINTENANCE OF

| 1 | 2 | 3 | 4 | 5 | 6 |
|--|-----------------|-----------------|------------|------------------------------|------------|
| Credit and object | Number of works | Comprising | | | |
| | | Works completed | Total cost | Works in course of execution | Total cost |
| <i>Credit for " anticipatory " works for combating unemployment in 1931-32 :</i> Public roads (including streets)..... Railways Crossings at different levels..... Canals and other inland waterways (including log-floating channels)..... Forest improvements..... Drinking-water supply and sewage disposal. Sea and river ports and fishing harbours... Aerodromes Government buildings other than those for public authorities..... Telegraph installations Other works | | | Crowns | | Crowns |
| | 7 | 6 | 73,650 | 1 | 20,000 |
| | 1 | — | — | 1 | 300,000 |
| | 18 | 14 | 1,322,750 | 4 | 595,050 |
| | 1 | 1 | 6,600 | — | — |
| | 3 | 3 | 8,450 | — | — |
| | 2 | 2 | 103,800 | — | — |
| | 3 | 3 | 445,900 | — | — |
| | 4 | 4 | 84,400 | — | — |
| | 3 | 3 | 47,400 | — | — |
| | 38 | 38 | 422,364 | — | — |
| | 4 | 4 | 52,775 | — | — |
| | Total... | 84 | 78 | 2,568,089 | 6 |
| <i>Credit for " anticipatory " works for combating unemployment in 1932-33 :</i> Public roads (including streets)..... Railways Crossings at different levels..... Canals and other inland waterways (including log-floating channels)..... Drinking-water supply and sewage disposal. Sea and river ports and fishing harbours... Airports Aerodromes State buildings other than those for public authorities Telegraph installations Telephone installations Other works | | | | | |
| | 8 | 7 | 244,072 | 1 | 5,000 |
| | 1 | 1 | 260,000 | 1 | 600,000 |
| | 4 | 1 | 29,200 | 3 | 315,825 |
| | 2 | 1 | 4,969 | — | — |
| | 2 | 2 | 38,672 | — | — |
| | 12 | 10 | 543,520 | 2 | 165,000 |
| | 1 | 1 | 15,000 | — | — |
| | 6 | 6 | 229,800 | — | — |
| | 5 | 2 | 98,927 | 3 | 141,320 |
| | 22 | 22 | 141,059 | — | — |
| | 1 | 1 | 3,410 | — | — |
| | 8 | 8 | 312,232 | — | — |
| Total... | 72 | 62 | 1,920,861 | 10 | 1,227,145 |
| <i>Credit for certain casual works connected with the maintenance of private forests in 1932-33 :</i> Forest improvements..... | 3,960 | 3,418 | 3,348,793 | 509 | 670,045 |
| GRAND TOTAL... | 4,116 | 3,558 | 7,837,743 | 525 | 2,812,240 |

Table 5.

UNEMPLOYMENT AND OF THE CREDIT FOR CERTAIN CASUAL WORKS CONNECTED WITH THE PRIVATE FORESTS.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------|------------|-------------|--------------------|--------------------|--|-----------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works planned but not begun | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| — | — | 93,650 | 93,650 | — | 18,064 | 75,586 |
| — | — | 300,000 | 300,000 | — | 126,300 | 173,700 |
| — | — | 1,917,800 | 1,654,425 | 263,375 | 840,300 | 1,077,500 |
| — | — | 6,600 | 6,600 | — | 3,000 | 3,600 |
| — | — | 8,450 | 8,450 | — | 550 | 7,900 |
| — | — | 103,800 | 103,800 | — | 39,036 | 64,764 |
| — | — | 445,900 | 418,200 | 27,700 | 210,600 | 235,300 |
| — | — | 84,400 | 84,400 | — | 7,343 | 77,057 |
| — | — | 47,400 | 47,400 | — | 16,690 | 30,710 |
| — | — | 422,364 | 227,000 | 195,364 | 207,181 | 215,183 |
| — | — | 52,775 | 52,775 | — | 8,947 | 43,828 |
| — | — | 3,483,139 | 2,996,700 | 486,439 | 1,478,011 | 2,005,128 |
| — | — | 249,072 | 249,072 | — | 72,924 | 176,148 |
| — | — | 860,000 | 860,000 | — | 404,800 | 455,200 |
| — | — | 345,025 | 285,092 | 59,933 | 148,000 | 197,025 |
| — | — | 4,969 | 4,969 | — | 1,914 | 3,055 |
| — | — | 38,672 | 38,672 | — | 13,711 | 24,961 |
| — | — | 708,520 | 667,620 | 40,900 | 350,500 | 358,020 |
| — | — | 15,000 | 15,000 | — | 8,850 | 6,150 |
| — | — | 229,800 | 229,800 | — | 22,632 | 207,168 |
| — | — | 240,247 | 240,247 | — | 103,676 | 136,571 |
| — | — | 141,059 | 84,800 | 56,259 | 53,477 | 87,582 |
| — | — | 3,410 | 3,410 | — | 2,045 | 1,365 |
| — | — | 312,232 | 312,232 | — | 86,118 | 226,114 |
| — | — | 3,148,006 | 2,990,914 | 157,092 | 1,268,627 | 1,879,359 |
| 33 | 35,416 | 4,054,254 | 1,696,678 | 2,357,576 | 1,081,086 | 2,973,168 |
| 33 | 35,416 | 10,685,399 | 7,684,292 | 3,001,107 | 3,827,744 | 6,857,655 |

private forests. The following information should, however, be given with regard to the objects for which the first items of the credits were provided.

In Table 4 above, the heading "Reconstruction of railway-station buildings" includes, in particular, bridges and tunnels, points, safety signals and permanent-way repairs. As regards rural districts, the heading "Other buildings" only refers to silos. The heading "Land settlement" includes grants to the owners of arable land, etc., for cultivation and building, settlement in the national parks, and State subsidies for cultivating and improving the pastureland of farms not fully developed. The information regarding building work has been given above. The heading "Transmission of motor power" relates mainly to the electrification of the State Railways. The headings "Telegraph, Telephone and Postal installations" are not quite correct, since they also include credits for the building of telegraph offices and post offices; but it appeared preferable to include these credits under the headings in question rather than under "Other buildings". Lastly, the heading "Other works" includes certain work carried out for national defence.

Financing of the credits.—The credits relating to the ordinary budget have, for the most part, been financed by other means than by loans. Some of these credits were, however, opened by means of loans issued in accordance with the general rules in force for State loans.

Table 6 below shows the amounts raised by loans :

Table 6.

| | 1929-30 | 1930-31 | 1931-32 | 1932-33 | 1933-34 |
|---|------------|------------|------------|------------|------------|
| | Crowns | Crowns | Crowns | Crowns | Crowns |
| Railways | — | — | 300,000 | 400,000 | — |
| Crossings at different levels..... | 500,000 | 575,000 | — | 500,000 | 150,000 |
| Reconstruction of railway stations, etc. | 3,565,000 | 1,647,000 | 1,990,000 | 1,581,000 | 2,725,000 |
| Land reclamation..... | 162,500 | 1,620,000 | 1,700,000 | 910,000 | 3,200,000 |
| Building and improvement of dwelling-houses in rural districts | — | — | — | 90,000 | — |
| Other rural buildings..... | — | 680,000 | — | 400,000 | 850,000 |
| Fertiliser-storage plant..... | — | — | 65,000 | 65,000 | — |
| Canals and other inland waterways (including log-floating channels) | 1,800,000 | 1,500,000 | 500,000 | 324,600 | 200,000 |
| State buildings other than those for public authorities..... | 200,000 | 714,000 | 120,000 | 570,000 | 80,000 |
| Electrical installations..... | 100,000 | 350,000 | 50,000 | 100,000 | 50,000 |
| Hydro-electric and heating power stations | 5,400,000 | 4,300,000 | 5,450,000 | 5,950,000 | 4,325,000 |
| Transmission of motor power.... | 2,300,000 | 3,000,000 | 26,300,000 | 19,600,000 | 41,800,000 |
| Telegraph installations | 630,000 | 1,041,000 | 250,000 | — | — |
| Telephone installations | 150,000 | 69,700 | — | — | 2,200,000 |
| Postal installations | 168,000 | 900,000 | 730,500 | 1,085,000 | 200,000 |
| Other work | — | — | 128,000 | — | — |
| Total... | 14,975,500 | 16,396,700 | 37,583,500 | 31,575,600 | 55,780,000 |

IV. RESERVE WORKS.

Table 1 shows that the credits available for carrying out reserve works amounted to a total of 72,602,000 crowns for the financial years 1929-30 to 1932-33 and 60 million crowns for the financial year 1933-34.

Rules applied for the use of credits.—Certain principles mentioned in Section I with regard to reserve works were applied until the budget year 1932-33. It has also been

briefly stated in what respects the principles in force after that date differed from those previously applied. The following explanations should now be given regarding the principles at present in force.

The *general provisions* relating to relief measures taken by or subsidised by the State, whether they take the form of the organisation of reserve works, the allocation of cash allowances or the application of certain measures relating to unemployment among young people, subject the right to unemployment relief to the following conditions :

- (a) The person concerned must be a Swedish national or a national of a State with which an agreement has been concluded stipulating reciprocity in respect of unemployment relief ;
- (b) He must have completed the age of 16 years or, in the case of work other than reserve work for young people, 18 years;
- (c) He must be capable of working and must be at liberty to accept work;
- (d) He must have registered himself as seeking employment at a public employment bureau;
- (e) It must have been ascertained that, as a result of unemployment lasting at least six working-days from the date of his application, he is in need of unemployment relief.

With regard to the *choice* of the work, no kind of work is, in principle, excluded from the category of undertakings which may be carried out as reserve works. The following rules are, however, applicable :

- (a) The work must be justifiable on economic or cultural grounds;
- (b) It must be of utility to the State, the commune or some other public body;
- (c) It may also be of utility to private persons, provided it is carried out by a public body;
- (d) It must be such that the wages paid constitute a comparatively large proportion of the total cost;
- (e) It must be such that any worker of normal capacity can usefully be employed at it;
- (f) It must, as a rule, be work that can be done in winter;
- (g) It must, as a general rule, but not in all cases, be able to be undertaken, stopped, extended or restricted according to the volume of unemployment.

As stated above, these rules relating to the choice of work are substantially the same as those formerly in force. They have, however, been amended to the effect that it need no longer be presumed that the proposed work will be carried out in the near future under open-market conditions. It is also now admitted that work may be carried out as reserve work even if it is in the interest of private persons, provided only that it is of such importance and involves such essential interests that it is advisable to carry it out under the direction of the commune (as communal reserve work subsidised by the State) or through the Central Unemployment Commission (as State reserve work).

The unemployed persons to be allotted to reserve works are chosen by the local unemployment committee concerned, after the Central Unemployment Commission has fixed the number of unemployed from the commune which may be allotted to reserve works undertaken or subsidised by the State. The choice of the unemployed persons is based on the principle that the most needy among those whom the Committee thinks it should take into consideration are always engaged first; the choice is made under conditions which enable the Commission to ascertain whether the persons in question have a desire to work. A refusal to accept work obviously involves the discontinuance of unemployment

Table 7.

TABLE SHOWING THE ALLOCATION OF CREDITS FOR STATE RESERVE

| 1 Object | 2 Number of works | 3 Works completed | 4 Comprising | | 6 Total cost |
|---|----------------------|----------------------|-----------------|-----------------------------------|-----------------|
| | | | 4 Total cost | 5 Works in course of execution | |
| | | | | | |
| | | | Crowns | | Crowns |
| <i>State reserve works 1929-30 to 1932-33 :</i> | | | | | |
| Public roads (including streets)..... | 290 | 44 | 8,646,945 | 206 | 55,242,500 |
| Bridges | 3 | I | 233,073 | — | — |
| Railways..... | I | — | — | I | 3,941,176 |
| Land reclamation | 5 | I | 50,267 | 2 | 30,466 |
| Canals and other inland waterways (including log-floating channels) | 23 | II | 468,313 | 12 | 4,857,210 |
| Forest improvements | 56 | 36 | 2,544,960 | 20 | 3,985,485 |
| Drinking-water supply and sewage disposal | I | I | 111,918 | — | — |
| Sea and river ports and fishing harbours..... | 2 | 2 | 225,350 | — | — |
| Aerodromes | 7 | 2 | 3,595 | 4 | 1,141,000 |
| Other buildings | I | I | 6,311 | — | — |
| Other works..... | 29 | 20 | 899,769 | 5 | 718,469 |
| Total... | 418 | 119 | 13,190,501 | 250 | 69,916,306 |
| <i>State reserve works in 1933-34 :</i> | | | | | |
| Public roads (including streets)..... | 274 | I | 23,449 | 223 | 53,273,443 |
| Bridges | 3 | — | — | I | 300 |
| Railways..... | 3 | — | — | 2 | 981,000 |
| Land reclamation | II | — | — | 7 | 772,493 |
| Canals and other inland waterways (including log-floating channels) | 23 | I | 73,637 | 22 | 2,096,433 |
| Forest improvements | 20 | — | — | 20 | 1,400,050 |
| Drinking-water supply and sewage disposal | 2 | — | — | I | 1,700 |
| Sea and river ports and fishing harbours..... | I | — | — | I | 221,800 |
| Aerodromes | 8 | — | — | 4 | 4,612,400 |
| Buildings for public authorities..... | I | — | — | I | 280,000 |
| Other works..... | 22 | I | 21,633 | 17 | 751,155 |
| Total... | 368 | 3 | 118,719 | 299 | 64,390,684 |
| Total State reserve works... | 786 | 122 | 13,309,220 | 549 | 134,306,990 |
| <i>Communal reserve works subsidised by the State from 1929-30 to 1932-33 :</i> | | | | | |
| Public roads (including streets)..... | 367 | 288 | 6,691,485 | 79 | 5,210,305 |
| Bridges | 8 | 7 | 99,405 | I | 11,220 |
| Railways..... | I | I | 233,400 | — | — |
| Land reclamation | 55 | 48 | 462,185 | 7 | 53,785 |
| Private roads..... | 353 | 232 | 3,617,045 | 114 | 5,304,530 |
| Land settlement | 29 | 28 | 258,845 | I | 9,350 |
| Canals and other inland waterways (including log-floating channels) | 17 | 12 | 123,105 | 5 | 218,140 |
| Forest improvements | 36 | 26 | 148,870 | 9 | 38,840 |
| Drinking-water supply and sewage disposal | 200 | 162 | 3,958,855 | 38 | 2,231,830 |
| Sea and river ports and fishing harbours..... | 17 | 12 | 393,730 | 5 | 310,800 |
| Aerodromes | 5 | — | — | 5 | 2,301,050 |
| Buildings for public authorities..... | 4 | 3 | 61,150 | I | 2,650 |
| Other buildings | 6 | 5 | 45,885 | I | 8,210 |
| Transmission of motor power..... | I | I | 5,700 | — | — |
| Other works : | | | | | |
| Restoration and maintenance of historical monuments | 5 | 4 | 42,070 | I | 1,400 |
| Fire wells | 13 | 11 | 81,855 | 2 | 24,890 |
| Sports grounds..... | 79 | 44 | 837,710 | 32 | 1,310,460 |
| Cemeteries | 53 | 37 | 289,960 | 15 | 335,550 |
| School playing-fields and grounds..... | 37 | 35 | 391,325 | 2 | 12,475 |
| Other works..... | 103 | 81 | 1,223,500 | 22 | 400,600 |
| Total... | 1,389 | 1,037 | 18,966,080 | 340 | 17,786,085 |

Table 7.

WORKS AND COMMUNAL RESERVE WORKS SUBSIDISED BY THE STATE.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|------------------------------------|------------|-------------|--------------------|--------------------|--|-------------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works provided for but not started | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 40 | 9,251,180 | 73,140,625 | 57,250,713 | 15,889,912 | 15,652,094 | 57,488,531 |
| 2 | 72,000 | 305,073 | 242,536 | 62,537 | 65,285 | 239,788 |
| — | — | 3,941,176 | 3,941,176 | — | 670,000 | 3,271,176 |
| 2 | 32,750 | 113,483 | 111,288 | 2,195 | 6,809 | 106,674 |
| — | — | 5,325,523 | 5,320,126 | 5,397 | 170,417 | 5,155,106 |
| — | — | 6,530,445 | 5,871,758 | 658,687 | 391,827 | 6,138,618 |
| — | — | 111,918 | 99,154 | 12,764 | 23,950 | 87,968 |
| — | — | 225,350 | 219,443 | 5,907 | 48,225 | 177,125 |
| 1 | 333,000 | 1,477,595 | 1,477,595 | — | 246,758 | 1,230,837 |
| — | — | 6,311 | 6,311 | — | 1,067 | 5,244 |
| 4 | 65,800 | 1,684,038 | 1,665,623 | 18,415 | 284,602 | 1,399,436 |
| 49 | 9,754,730 | 92,861,537 | 76,205,723 | 16,655,814 | 17,561,034 | 75,300,503 |
| 50 | 13,000,000 | 66,296,892 | 58,025,708 | 8,271,184 | 14,187,535 | 52,109,357 |
| 2 | 75,000 | 75,300 | 57,255 | 18,045 | 16,114 | 59,186 |
| 1 | 130,000 | 1,111,000 | 258,000 | 853,000 | 188,870 | 922,130 |
| 4 | 245,000 | 1,017,403 | 1,002,403 | 15,000 | 61,044 | 956,359 |
| — | — | 2,170,070 | 2,109,993 | 60,077 | 69,442 | 2,100,628 |
| — | — | 1,400,050 | 1,400,050 | — | 84,003 | 1,316,047 |
| 1 | 6,000 | 7,700 | 7,530 | 170 | 1,648 | 6,052 |
| — | — | 221,800 | 199,620 | 22,180 | 47,405 | 174,335 |
| 4 | 950,000 | 5,562,400 | 5,427,400 | 135,000 | 928,921 | 4,633,479 |
| — | — | 280,000 | 280,000 | — | 47,320 | 232,680 |
| 4 | 170,000 | 942,788 | 934,018 | 8,770 | 159,331 | 783,457 |
| 66 | 14,576,000 | 79,085,403 | 69,701,977 | 9,383,426 | 15,791,693 | 63,293,710 |
| 115 | 24,330,730 | 171,946,940 | 145,907,700 | 26,039,240 | 33,352,727 | 138,594,213 |
| — | — | 11,901,790 | 4,909,550 | 6,992,240 | 3,321,075 | 8,580,715 |
| — | — | 110,625 | 47,845 | 62,780 | 33,655 | 76,970 |
| — | — | 233,400 | 82,260 | 151,140 | 96,300 | 137,100 |
| — | — | 515,970 | 219,480 | 296,490 | 116,335 | 399,635 |
| 7 | 224,600 | 9,146,175 | 4,612,335 | 4,533,840 | 2,187,435 | 6,958,740 |
| — | — | 268,195 | 109,680 | 158,515 | 42,935 | 225,260 |
| — | — | 341,245 | 155,970 | 185,275 | 77,135 | 264,110 |
| 1 | 840 | 188,550 | 82,545 | 106,005 | 17,905 | 170,585 |
| — | — | 6,190,685 | 2,032,115 | 4,158,570 | 2,608,360 | 3,582,325 |
| — | — | 704,530 | 304,650 | 399,880 | 218,940 | 485,590 |
| — | — | 2,301,050 | 1,261,980 | 1,039,070 | 701,850 | 1,599,200 |
| — | — | 63,800 | 18,530 | 45,270 | 30,600 | 33,200 |
| — | — | 54,095 | 27,970 | 26,125 | 18,080 | 30,015 |
| — | — | 5,700 | 4,275 | 1,425 | — | 5,700 |
| — | — | 43,470 | 24,655 | 18,815 | 6,700 | 36,770 |
| — | — | 106,745 | 54,895 | 51,850 | 14,685 | 92,060 |
| 3 | 9,800 | 2,157,970 | 771,710 | 1,386,260 | 503,480 | 1,654,490 |
| 1 | 1,300 | 626,810 | 368,310 | 258,500 | 96,585 | 530,225 |
| — | — | 403,800 | 214,970 | 188,830 | 61,085 | 342,715 |
| — | — | 1,624,100 | 769,910 | 854,190 | 342,205 | 1,281,895 |
| 12 | 236,540 | 36,988,705 | 16,073,635 | 20,915,070 | 10,495,405 | 26,493,300 |

Table 7 (continued)

TABLE SHOWING THE ALLOCATION OF CREDITS FOR STATE RESERVE

| 1 Object | 2 Number of works | 3 Works completed | 4 Total cost | 5 Comprising | | 6 Total cost |
|---|----------------------|----------------------|-----------------|------------------------------|------------|-----------------|
| | | | | Works in course of execution | Total cost | |
| | | | | | | |
| <i>Communal reserve works subsidised by the State in 1933-34:</i> | | | | | | |
| Public roads (including streets) | 500 | 51 | 681,980 | 385 | | 24,045,790 |
| Bridges | 2 | 1 | 8,500 | 1 | | 96,030 |
| Railways | 3 | — | — | 2 | | 156,700 |
| Crossings at different levels | 1 | — | — | — | | — |
| Land reclamation | 27 | 8 | 65,090 | 15 | | 117,550 |
| Buildings in rural districts other than dwelling-houses | 3 | — | — | 1 | | 2,165 |
| Private roads | 347 | 30 | 281,965 | 247 | | 4,441,015 |
| Land settlement | 26 | 9 | 33,010 | 12 | | 164,665 |
| Canals and other inland waterways (including log-floating channels) | 21 | 6 | 102,240 | 12 | | 287,760 |
| Forest improvements | 21 | 7 | 56,660 | 13 | | 113,900 |
| Drinking-water supply and sewage disposal | 319 | 61 | 898,200 | 219 | | 14,971,955 |
| Sea and river ports and fishing harbours | 24 | — | — | 19 | | 1,444,900 |
| Aerodromes | 3 | — | — | 3 | | 1,604,000 |
| Buildings for public authorities | 6 | 2 | 6,460 | 4 | | 8,315 |
| Other buildings | 8 | 1 | 15,000 | 6 | | 58,650 |
| Hydro-electric and heating power stations | 1 | — | — | 1 | | 11,500 |
| Transmission of motor power | 3 | — | — | 3 | | 57,550 |
| Telephone installations | 1 | 1 | 3,240 | — | | — |
| Other works: | | | | | | |
| Restoration and maintenance of historical monuments | 16 | 3 | 278,780 | 10 | | 170,150 |
| Archive works | 7 | 1 | 20,000 | 2 | | 68,000 |
| Fire wells | 33 | 5 | 7,940 | 19 | | 75,010 |
| Sports grounds | 48 | 3 | 13,600 | 36 | | 1,161,270 |
| Cemeteries | 62 | 11 | 46,110 | 47 | | 1,296,275 |
| School playing-fields and grounds | 56 | 12 | 38,490 | 33 | | 378,240 |
| Other works | 87 | 21 | 97,235 | 61 | | 1,451,765 |
| Total | 1,625 | 233 | 2,654,500 | 1,151 | | 52,183,155 |
| Total communal reserve works subsidised by the State | 3,014 | 1,270 | 21,620,580 | 1,491 | | 69,969,240 |
| GRAND TOTAL | 3,800 | 1,392 | 34,929,800 | 2,040 | | 204,276,230 |

Table 7 (continued).

WORKS AND COMMUNAL RESERVE WORKS SUBSIDISED BY THE STATE.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|------------------------------------|------------|-------------|--------------------|--------------------|--|-------------|
| Comprising | | Grand total | Comprising | | Proportion of grand total allocated to | |
| Works provided for but not started | Total cost | | State contribution | From other sources | Materials | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 64 | 2,452,360 | 27,180,130 | 18,584,820 | 8,595,310 | 7,523,660 | 19,656,470 |
| — | — | 104,530 | 65,700 | 38,830 | 42,635 | 61,895 |
| 1 | 29,000 | 185,700 | 47,905 | 137,795 | 67,000 | 118,700 |
| 1 | 9,300 | 9,300 | 3,100 | 6,200 | 5,300 | 4,000 |
| 4 | 32,560 | 215,200 | 121,030 | 94,170 | 41,200 | 174,000 |
| 2 | 9,675 | 11,840 | 7,530 | 4,310 | 6,015 | 5,825 |
| 70 | 1,260,800 | 5,983,780 | 3,618,000 | 2,365,780 | 1,462,275 | 4,521,505 |
| 5 | 18,060 | 215,735 | 82,760 | 132,975 | 66,365 | 149,370 |
| 3 | 238,140 | 628,140 | 344,865 | 283,275 | 185,145 | 442,995 |
| 1 | 1,000 | 171,560 | 86,945 | 84,615 | 33,260 | 138,300 |
| 39 | 1,116,080 | 16,986,235 | 7,187,260 | 9,798,975 | 8,522,480 | 8,463,755 |
| 5 | 257,000 | 1,701,900 | 723,690 | 978,210 | 699,780 | 1,002,120 |
| — | — | 1,604,000 | 1,135,500 | 468,500 | 403,000 | 1,141,000 |
| — | — | 14,775 | 6,540 | 8,235 | 3,770 | 11,005 |
| 1 | 6,950 | 80,600 | 35,750 | 44,850 | 35,190 | 45,410 |
| — | — | 11,500 | 9,145 | 2,355 | 2,830 | 8,670 |
| — | — | 57,550 | 31,725 | 25,825 | 19,070 | 38,480 |
| — | — | 3,240 | 750 | 2,490 | 1,650 | 1,590 |
| 3 | 41,350 | 490,280 | 243,525 | 246,755 | 143,020 | 347,260 |
| 4 | 8,920 | 96,920 | 28,860 | 68,060 | 17,150 | 79,770 |
| 9 | 25,870 | 108,820 | 47,455 | 61,365 | 36,485 | 72,335 |
| 9 | 186,190 | 1,361,060 | 581,800 | 779,260 | 503,520 | 857,540 |
| 4 | 60,200 | 1,402,585 | 591,060 | 811,525 | 556,305 | 846,280 |
| 11 | 31,930 | 448,660 | 289,825 | 158,835 | 130,460 | 318,200 |
| 5 | 90,710 | 1,639,710 | 882,570 | 757,140 | 459,560 | 1,180,150 |
| 241 | 5,876,095 | 60,713,750 | 34,758,110 | 25,955,640 | 21,027,125 | 39,686,625 |
| 253 | 6,112,635 | 97,702,455 | 50,831,745 | 46,870,710 | 31,522,530 | 66,179,925 |
| 368 | 30,443,365 | 269,649,395 | 196,739,445 | 72,909,950 | 64,875,257 | 204,774,138 |

relief. But a further offer of work may be made after a certain period — namely, not less than four weeks.

As soon as a commune has applied for and obtained State unemployment assistance, the Central Unemployment Commission must study the *wage conditions* existing in the locality on the open market. It procures the necessary information for this purpose, by means of which the local unemployment committee may give its opinion regarding the lowest labourers' wages at which labour can be procured to any considerable extent in the locality. For this purpose, it must take as a basis, not only the wages fixed by the unskilled workers' organisation, but also ordinary workmen's wages, account being taken also of wages paid in agriculture and forestry.

On the basis of these particulars and of any other information at its disposal regarding wages, the Central Unemployment Commission fixes the reserve-work wage of the locality. The State reserve works and the communal reserve works subsidised by the State must, as far as possible, be carried out as piece-work, and the reserve-work wage is therefore to be regarded as the income provided for in case of piece-work. Wages per hour are fixed at a lower rate and must be applied only in the rare cases where the work cannot be carried out as piece-work.

In fixing piece-work rates, no account must be taken of any skill which the person may have in the work in question. It is merely a question of enabling him to obtain the reserve-work wage by doing normal work. In the case of piece-work he is not guaranteed a fixed amount per hour. If a workman engaged on reserve works earns more than the reserve-work wage, he still receives the amount provided by the piece-work rate. A gang which works harder than the normal may therefore earn more than the wages provided for reserve works.

The above provisions and the other rules regarding reserve works are laid down in the Decree of June 26th, 1933, regarding relief measures taken by or subsidised by the State in case of unemployment (Svensk Författningssamling No. 446). This decree has been superseded this year by a fresh decree on the subject (Svensk Författningssamling No. 434). The amendments introduced by the new decree, however, do not affect the questions treated in the present memorandum.

Allocation of credits.—Table 7 shows the allocation of credits provided for reserve works. It differentiates between the State reserve works for the financial years 1929-30 to 1932-33; that is to say, works financed by the credits of the ordinary budget and works relating to the financial year 1933-34—*i.e.*, works financed by the credits of the unemployment budget. The same division has been adopted for the communal reserve works subsidised by the State.

A glance at this table shows that, in the financial years 1929-30 to 1932-33, the State contribution to the cost of State reserve works amounted to 76,205,723 crowns, while the amount was 67,701,977 crowns (column 10) for the financial year 1933-34. With regard to communal reserve works subsidised by the State, the subsidies amount to 16,073,635 and 34,758,110 crowns respectively. The total State contribution therefore amounts to 92,279,358 crowns for the period 1929-30 to 1932-33 and 104,460,087 crowns for the financial year 1933-34. According to Table 1, the amounts available for reserve works during the periods in question were 72,602,000 and 60,000,000 crowns respectively. The reason for this difference is as follows :

This table includes all the work completed, in course of execution or provided for but not started. The State contribution for the last two groups was estimated on the assumption that the work would be entirely carried out by the Central Unemployment Commission (State reserve works) or would enjoy State subsidies until entirely completed (communal reserve works subsidised by the State). It is, however, impossible to determine in advance whether this assumption will be realised or not. The figures in the table show, however, that the Central Unemployment Commission was, at various times,

under an obligation to pay larger amounts than the State had placed at its disposal during those periods. In practice, this fact does not involve any difficulty. Indeed, in the contracts concluded for carrying out State reserve works, the Commission always inserts a clause reserving the right to suspend the work at any time. Moreover, it is not bound in the case of reserve works subsidised by the State. When it has admitted that an undertaking is of this nature, it sends the authority concerned a letter of notification, in which it states that it can, if necessary, withdraw the State subsidy.

Review of the position regarding the allocation of credits.—As regards the allocation of credits referred to in the above tables, it is advisable, as in the case of public works carried out under the unemployment budget, to draw up the recapitulatory table (Table 8) on pages 218 and 219, which includes under separate headings the State reserve works and the communal reserve works subsidised by the State.

V. EFFECT ON UNEMPLOYMENT.

As regards the reserve works, the effect which their execution has produced on the volume of unemployment is immediately apparent in the figures relative to the number of registered unemployed who have been engaged upon them. In order to realise their effect, it is therefore necessary to ascertain what has been the number—both absolutely and relatively—of registered unemployed who have been engaged upon such works.

The same does not, however, apply to the works carried out at the ordinary market rates. In order to judge of their effect, it is necessary to examine the possibilities of work which they have opened up. In this connection, there is available the statistical material collected by the Ministry of Social Affairs showing the number of days' work performed.

The above-mentioned means of ascertaining the effect on unemployment relate exclusively to the *direct* effect of the execution of public works. On the other hand, there is no material to show statistically the *indirect* effect, which, in the main, makes itself felt in the open market. It resides in the fact that work has been provided for numerous industries in carrying out the orders for various materials (bricks, cement, bridge materials, etc.) necessitated by the public works undertaken. This indirect effect should be borne in mind, as in all probability it has been of great importance to the labour market.

Reserve works.—The effect of the reserve works from the point of view under consideration is shown by the statistical data communicated monthly by the Central Unemployment Commission. The first step was to use these data as a basis for Table 9, which, in respect of the period dealt with in the present memorandum, shows, in the first place, the variations in the unemployment figures and, in the second place, the number—both in absolute figures and also as a percentage of the total figures of the registered unemployed—of workers employed on State reserve works and on State-subsidised communal reserve works. For the sake of clarity, these particulars are given only for the months of January, March, June, September and December.

The table 9 shows at a glance that, at the beginning of the period under consideration, the number of workers employed upon reserve works varied between 28.2 and 16.4% of the registered unemployed. At the end of 1930, this figure had fallen to 12.2%, and in the winter of 1931-32, the percentage of those engaged upon such works also remained low. The same position recurred in the following winter and is clearly due to the fact that it had not been possible to increase the reserve works so as to keep pace with the increase in unemployment, which by then had reached its peak. In the winter of 1933-34, there was an improvement in this respect, while in the summer of 1934, the number of workers engaged upon reserve works was represented by the highest figure, both relatively and absolutely, recorded throughout the depression. In June 1934, indeed, the figure rose to 44,498, or 44.6%, of the registered unemployed. For the months of July

Table 8.

RECAPITULATORY TABLE, AS REGARDS THE OBJECT

| 1 | 2 | 3 | 4 | 5 | 6 |
|---|-----------------|-----------------|-------------------|------------------------------|--------------------|
| Object | Number of works | Comprising | | | |
| | | Works completed | Total cost | Works in course of execution | Total cost |
| <i>State reserve works :</i> | | | | | |
| Public roads (including streets) | 564 | 45 | 8,670,394 | 429 | 108,515,943 |
| Bridges | 6 | 1 | 233,073 | 1 | 300 |
| Railways | 4 | — | — | 3 | 4,922,176 |
| Land reclamation | 16 | 1 | 50,267 | 9 | 802,869 |
| Canals and other inland waterways (including log-floating channels) | 46 | 12 | 541,950 | 34 | 6,953,643 |
| Forest improvements | 76 | 36 | 2,544,960 | 40 | 5,385,535 |
| Drinking-water supply and sewage disposal | 3 | 1 | 111,918 | 1 | 1,700 |
| Sea and river ports, fishing harbours | 3 | 2 | 225,350 | 1 | 221,800 |
| Aerodromes | 15 | 2 | 3,595 | 8 | 5,753,400 |
| Buildings for public authorities | 1 | — | — | 1 | 280,000 |
| Other buildings | 1 | 1 | 6,311 | — | — |
| Other works | 51 | 21 | 921,402 | 22 | 1,469,624 |
| Total ... | 786 | 122 | 13,309,220 | 549 | 134,306,990 |
| <i>State-subsidised communal reserve works :</i> | | | | | |
| Public works (including streets) | 867 | 339 | 7,373,465 | 464 | 29,256,095 |
| Bridges | 10 | 8 | 107,905 | 2 | 107,250 |
| Railways | 4 | 1 | 233,400 | 2 | 156,700 |
| Crossings at different levels | 1 | — | — | — | — |
| Land reclamation | 82 | 56 | 527,275 | 22 | 171,335 |
| Buildings in rural districts other than dwelling-houses | 3 | — | — | 1 | 2,165 |
| Private roads | 700 | 262 | 3,899,010 | 361 | 9,745,545 |
| Land settlement | 55 | 37 | 291,855 | 13 | 174,015 |
| Canals and other inland waterways (including log-floating channels) | 38 | 18 | 225,345 | 17 | 505,900 |
| Forest improvements | 57 | 33 | 205,530 | 22 | 152,740 |
| Drinking-water supply and sewage disposal | 51 | 223 | 4,857,055 | 257 | 17,203,785 |
| Sea and river ports, fishing harbours | 41 | 12 | 393,730 | 24 | 1,755,700 |
| Aerodromes | 8 | — | — | 8 | 3,905,050 |
| Buildings for public authorities | 10 | 5 | 67,610 | 5 | 10,965 |
| Other buildings | 14 | 6 | 60,885 | 7 | 66,860 |
| Hydro-electric and heating power stations | 1 | — | — | 1 | 11,500 |
| Motive power transmission | 4 | 1 | 5,700 | 3 | 57,550 |
| Telephone installations | 1 | 1 | 3,240 | — | — |
| Other works : | | | | | |
| Restoration and upkeep of historical monuments | 21 | 7 | 320,850 | 11 | 171,550 |
| Archæological works | 7 | 1 | 20,000 | 2 | 68,000 |
| Fire wells | 46 | 16 | 89,795 | 21 | 99,900 |
| Playing-fields | 127 | 47 | 851,310 | 68 | 2,471,730 |
| Cemeteries | 115 | 48 | 336,070 | 62 | 1,631,825 |
| School playing-fields and grounds | 93 | 47 | 429,815 | 35 | 390,715 |
| Other works | 190 | 102 | 1,320,735 | 83 | 1,852,365 |
| Total ... | 3,014 | 1,270 | 21,620,580 | 1,491 | 69,969,240 |

Table 8.

OF THE WORKS, OF THE PARTICULARS TO BE FOUND IN TABLE 7.

| 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|-----------------------------|------------|-------------|--------------------|--------------------|--|-------------|
| Comprising | | Grand total | Whereof | | Proportion of grand total allocated to | |
| Works planned but not begun | Total cost | | State contribution | From other sources | Material | Wages |
| | Crowns | Crowns | Crowns | Crowns | Crowns | Crowns |
| 90 | 22,251,180 | 139,437,517 | 115,276,421 | 24,161,096 | 29,839,629 | 109,597,888 |
| 4 | 147,000 | 380,373 | 299,791 | 80,582 | 81,399 | 298,974 |
| 1 | 130,000 | 5,052,176 | 4,199,176 | 853,000 | 858,870 | 4,193,306 |
| 6 | 277,750 | 1,130,886 | 1,113,691 | 17,195 | 67,853 | 1,063,033 |
| — | — | 7,495,593 | 7,430,119 | 65,474 | 239,859 | 7,255,734 |
| — | — | 7,930,495 | 7,271,808 | 658,687 | 475,830 | 7,454,665 |
| 1 | 6,000 | 119,618 | 106,684 | 12,934 | 25,598 | 94,020 |
| — | — | 447,150 | 419,063 | 28,087 | 95,690 | 351,460 |
| 5 | 1,283,000 | 7,039,995 | 6,904,995 | 135,000 | 1,175,679 | 5,864,316 |
| — | — | 280,000 | 280,000 | — | 47,320 | 232,680 |
| — | — | 6,311 | 6,311 | — | 1,067 | 5,244 |
| 8 | 235,800 | 2,626,826 | 2,599,641 | 27,185 | 443,933 | 2,182,893 |
| 115 | 24,330,730 | 171,946,940 | 145,907,700 | 26,039,240 | 33,352,727 | 138,594,213 |
| 64 | 2,452,360 | 39,081,920 | 23,494,370 | 15,587,550 | 10,844,735 | 28,237,185 |
| — | — | 215,155 | 113,545 | 101,610 | 76,290 | 138,865 |
| 1 | 29,000 | 419,100 | 130,165 | 288,935 | 163,300 | 255,800 |
| 1 | 9,300 | 9,300 | 3,100 | 6,200 | 5,300 | 4,000 |
| 4 | 32,560 | 731,170 | 340,510 | 390,660 | 157,535 | 573,635 |
| 2 | 9,675 | 11,840 | 7,530 | 4,310 | 6,015 | 5,825 |
| 77 | 1,485,400 | 15,129,955 | 8,230,335 | 6,899,620 | 3,649,710 | 11,480,245 |
| 5 | 18,060 | 483,930 | 192,440 | 291,490 | 109,300 | 374,630 |
| 3 | 238,140 | 969,385 | 500,835 | 468,550 | 262,280 | 707,105 |
| 2 | 1,840 | 360,110 | 169,490 | 190,620 | 51,225 | 308,885 |
| 39 | 1,116,080 | 23,176,920 | 9,219,375 | 13,957,545 | 11,130,840 | 12,046,080 |
| 5 | 257,000 | 2,406,430 | 1,028,340 | 1,378,090 | 918,720 | 1,487,710 |
| — | — | 3,905,050 | 2,397,480 | 1,507,570 | 1,164,850 | 2,740,200 |
| — | — | 78,575 | 25,070 | 53,505 | 34,370 | 44,205 |
| 1 | 6,950 | 134,695 | 63,720 | 70,975 | 53,270 | 81,425 |
| — | — | 11,500 | 9,145 | 2,355 | 2,830 | 8,670 |
| — | — | 63,250 | 36,000 | 27,250 | 19,070 | 44,180 |
| — | — | 3,240 | 750 | 2,490 | 1,650 | 1,590 |
| 3 | 41,350 | 533,750 | 268,180 | 265,570 | 149,720 | 384,030 |
| 4 | 8,920 | 96,920 | 28,860 | 68,060 | 17,150 | 79,770 |
| 9 | 25,870 | 215,565 | 102,350 | 113,215 | 51,170 | 164,395 |
| 12 | 195,990 | 3,519,030 | 1,353,510 | 2,165,520 | 1,007,000 | 2,512,030 |
| 5 | 61,500 | 2,029,395 | 959,370 | 1,070,025 | 652,890 | 1,376,505 |
| 11 | 31,930 | 852,460 | 504,795 | 347,665 | 191,545 | 660,915 |
| 5 | 90,710 | 3,263,810 | 1,652,480 | 1,611,330 | 801,765 | 2,462,045 |
| 253 | 6,112,635 | 97,702,455 | 50,831,745 | 46,870,710 | 31,522,530 | 66,179,925 |

and August, the percentage was 51.8 and 52.1 respectively. As regards September, the table has been completed by means of the available data.

It is clear from the foregoing that the number of registered unemployed not engaged upon public works has fallen appreciably in the last few months. As a certain number of the workers shown in the table as registered unemployed are engaged upon communal reserve works—financed entirely by the communes themselves—the number of unemployed engaged upon public works is, in reality, greater than is shown by the figures given in the table.

Table 9.

NUMBER OF UNEMPLOYED REGISTERED WITH THE CENTRAL UNEMPLOYMENT COMMISSION
AND THE NUMBER OF UNEMPLOYED ENGAGED UPON STATE RESERVE WORKS OR STATE-SUBSIDISED
COMMUNAL RESERVE WORKS DURING THE BUDGETARY YEARS 1929-30 TO 1933-34.

| | January | March | June | September | December |
|--|---------|---------|---------|-----------|----------|
| 1929: Number of registered unemployed | — | — | — | 5,036 | 12,041 |
| Number of unemployed engaged upon reserve works | — | — | — | 867 | 2,367 |
| Percentage of total number of registered unemployed | — | — | — | 17.2 | 19.7 |
| 1930: Number of registered unemployed | 16,647 | 13,572 | 6,634 | 8,589 | 31,901 |
| Number of unemployed engaged upon reserve works | 3,743 | 3,829 | 1,740 | 1,408 | 3,902 |
| Percentage of total number of registered unemployed | 22.5 | 28.2 | 26.2 | 16.4 | 12.2 |
| 1931: Number of registered unemployed | 40,245 | 41,885 | 31,057 | 40,377 | 88,761 |
| Number of unemployed engaged upon reserve works | 5,981 | 8,046 | 7,819 | 7,843 | 11,671 |
| Percentage of total number of registered unemployed | 14.8 | 19.2 | 25.2 | 19.4 | 13.1 |
| 1932: Number of registered unemployed | 103,742 | 109,674 | 97,370 | 106,404 | 161,155 |
| Number of unemployed engaged upon reserve works | 15,115 | 18,761 | 20,994 | 22,404 | 23,084 |
| Percentage of total number of registered unemployed | 14.6 | 17.1 | 21.4 | 21.1 | 14.4 |
| 1933: Number of registered unemployed | 189,225 | 186,561 | 145,458 | 151,498 | 171,065 |
| Number of unemployed engaged upon reserve works | 24,736 | 28,878 | 34,027 | 35,073 | 28,615 |
| Percentage of total number of registered unemployed | 13.1 | 15.5 | 23.3 | 23.1 | 16.8 |
| 1934: Number of registered unemployed | 171,540 | 160,345 | 99,628 | 78,918 | — |
| Number of unemployed engaged upon reserve works | 33,372 | 39,980 | 44,498 | 40,047 | — |
| Percentage of total number of registered unemployed | 19.5 | 25.0 | 44.6 | 50.7 | — |

Public works at the ordinary market rates.—As regards works of this type, the Ministry of Social Affairs has, since the 1933-34 budgetary year, kept a record of all the decisions taken by the Government in regard to credits provided for various undertakings and objects. In regard to each of these credits, a special table has been compiled showing, in respect of each undertaking subsidised, the date of the decision, the name of the undertaking, the total cost and the amount of the subsidy. A special register has been kept of every commune which is directly subsidised or within which a subsidised undertaking is situated. This register shows the amount of the subsidy, the character of the works and the total number of days' work provided. Every subsidised undertaking is required

Table 10.

NUMBER OF DAYS' WORK UNDER OPEN-MARKET CONDITIONS FOR THE FINANCIAL PERIOD 1933-34.

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----------------|--------------------|-----------------|-----------------|---------|-------------------------------|----------------------|------------------------|------------------|---------------|---------------------------------|
| Year and month | Anticipatory works | | Dwelling-houses | | Crossings at different levels | Bridges and harbours | Storage of fertilisers | Land reclamation | Land drainage | Roads and log-floating channels |
| | By the State | By the communes | Rural | Urban | | | | | | |
| 1933. | | | | | | | | | | |
| July | 435 | — | — | — | — | — | — | — | — | — |
| August . . . | — | — | — | — | — | — | — | — | — | — |
| Sept. | 1,625 | 322 | — | — | — | — | — | — | — | — |
| Oct. | 6,103 | 376 | — | — | — | — | — | — | — | — |
| Nov. | 7,675 | 2,408 | — | — | 165 | 1,128 | — | — | — | — |
| Dec. | 6,779 | 2,314 | 22,847 | — | 582 | 1,522 | 9,213 | 31,260 | 45,989 | — |
| 1934. | | | | | | | | | | |
| Jan. | 9,002 | 3,792 | 13,762 | — | 3,207 | 7,579 | 11,734 | 17,442 | 11,210 | — |
| Feb. | 9,971 | 4,883 | 34,770 | 1,584 | 6,580 | 14,711 | 3,916 | 9,879 | 13,220 | — |
| March . . . | 10,757 | 7,681 | 56,753 | 10,525 | 9,389 | 21,474 | 1,993 | 13,661 | 6,997 | — |
| April | 12,896 | 12,476 | 97,573 | 19,460 | 13,045 | 18,270 | 2,497 | 16,451 | 21,401 | — |
| May | 13,866 | 18,965 | 139,287 | 36,389 | 16,401 | 14,269 | 4,460 | 35,775 | 21,148 | — |
| June | 14,535 | 24,108 | 211,777 | 50,733 | 20,756 | 15,128 | 6,755 | 47,941 | 37,902 | 454 |
| Total.. | 93,644 | 77,325 | 576,769 | 118,691 | 70,125 | 94,081 | 40,568 | 172,409 | 157,867 | 454 |

| 1 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|----------------|-------------------|--|-----------------|-------------------------|--------------|---------------------|---------------|-------------------------------|---------------------------------|
| Year and month | Upkeep of forests | Loan fund for workers' agricultural small-holdings | State buildings | Total (columns 2 to 11) | State orders | Loans and subsidies | Miscellaneous | Total (columns 16, 17 and 18) | Grand total (columns 15 and 19) |
| 1933. | | | | | | | | | |
| July | — | — | 5,649 | 6,084 | — | — | 2,083 | 2,083 | 8,167 |
| August . . . | — | — | 5,681 | 5,681 | — | 2,148 | 6,178 | 8,326 | 14,007 |
| Sept. | — | — | 5,513 | 7,460 | 1,319 | 4,853 | 718 | 6,890 | 14,350 |
| Oct. | 160,377 | — | 5,644 | 172,500 | 2,347 | 12,433 | 5,928 | 20,708 | 193,208 |
| Nov. | 137,655 | — | 4,295 | 153,326 | 3,048 | 29,816 | 3,566 | 36,430 | 189,756 |
| Dec. | 73,765 | 3,578 | 2,992 | 200,841 | 5,879 | 32,038 | 8,259 | 46,176 | 247,017 |
| 1934. | | | | | | | | | |
| Jan. | 34,052 | 2,967 | 1,898 | 116,645 | 7,760 | 45,069 | 4,080 | 56,918 | 173,563 |
| Feb. | 15,517 | 1,373 | 3,365 | 119,769 | 9,330 | 50,599 | 3,718 | 63,647 | 183,416 |
| March . . . | 5,530 | 4,390 | 6,136 | 155,286 | 12,078 | 66,179 | 6,129 | 84,386 | 239,672 |
| April | 6,536 | 4,632 | 7,590 | 232,827 | 12,844 | 78,376 | 7,914 | 99,134 | 331,961 |
| May | 9,694 | 10,586 | 11,279 | 332,119 | 11,633 | 92,168 | 8,220 | 112,021 | 444,140 |
| June | 18,418 | 18,675 | 15,178 | 482,360 | 11,237 | 108,339 | 9,561 | 129,137 | 611,497 |
| Total.. | 461,544 | 46,201 | 75,220 | 1,984,898 | 77,475 | 522,018 | 66,363 | 665,856 | 2,650,754 |

to submit monthly reports showing, *inter alia*, the number of days' work performed in the course of the month. The statistics thus collected by the Ministry make it possible to ascertain the number of days' work provided each month as the result of each separate credit. Table 10 gives particulars relating to the 1933-34 budgetary year.

Columns 2 to 14 show the credits in the unemployment budget for carrying out public works under open-market conditions. Columns 16 to 18 relate to the other credits in the unemployment budget, except the credit for State reserve works and State-subsidised communal reserve works.

In order to judge what effect, from the point of view of this survey, has been produced upon the open market by the execution of public works, it should be observed, in the first place, that the decision taken by the Riksdag at its 1933 session was only reached at the end of June 1933, with the result that the administrative enquiry could not be undertaken earlier than in the first months of the financial period 1933-34, and, in the second place, that a dispute occurred in the building industry, which was not settled before the end of February 1934, and action to put in hand the constructional work approved by the public authorities had to be deferred until negotiations concerning the labour contract had been concluded. Owing to the last-named circumstance, the credits for Government constructional work in particular and for the erection of dwelling-houses could not be put to any general use before March 1934 at the earliest. The above-mentioned circumstances are further reflected in the fact that, of the 79,821,400 crowns appropriated in the unemployment budget for the execution of public works under open-market conditions, a sum of only approximately 23 million crowns was assigned to the purpose in view during the financial period. If the sums which, in the present survey, relate to other unemployment credits are also taken into account (column 10 of Table 1), the total sum of money involved amounts to about 39 million crowns. The full effects of this expenditure will therefore be revealed in the course of the current financial period.

In order to gain some idea of the number of workers represented by the figures in the table of days of work, it has to be assumed that twenty-five days' work per month corresponds to one worker. When this basis of computation is taken, the number of workers for whom the measures in question provided employment works out as follows :

| | | | | | | |
|--------|---------|----------|-----------|---------|----------|----------|
| 1933 : | July | August | September | October | November | December |
| | 327 | 560 | 574 | 7,728 | 7,590 | 9,880 |
| 1934 : | January | February | March | April | May | June |
| | 6,942 | 7,334 | 9,586 | 13,278 | 17,765 | 24,459 |

The above figures show that fairly substantial results were only obtained as from the month of October 1933. A glance at Table 10 indicates that these results are due primarily to forestry work. In April 1934, the upward tendency becomes more marked. This is due, in the main, to activity in the building trade. Subsequently, the figures increase from month to month, rising to somewhere around 25,000 workers employed in the month of June. About half of these were engaged in the erection of rural and urban dwelling-houses. The provisional figures for days of work available for July and August 1934 are respectively 721,016 and 828,767. These figures correspond to 28,840 and 33,150 workers respectively. As stated above, these totals are further increased through the work indirectly provided by the credits concerned.

The available data do not yield any exact indication of the number of workers engaged in public works under open-market conditions and recruited from among the unemployed. They suffice to show, however, that this number was fairly considerable. The reduction in the number of unemployed, which is observable from the data at the top of Table 10, and which continued until, by the end of September 1934, the number of registered

unemployed had sunk to 78,918, is ascribable in some considerable measure to the increase of employment which was brought about by the execution of public works under open-market conditions. These works consequently represented an important contribution towards the improvement of the unemployment position.

VI. RECAPITULATORY COMPARISON OF THE FINANCIAL PERIOD 1933-34
WITH PREVIOUS FINANCIAL PERIODS.

The differences to be noted on a number of points between the financial periods from 1929-30 to 1932-33 and the financial period 1933-34 have already been mentioned on several occasions. It would appear desirable to give a summary analysis of them by way of conclusion.

The principal difference relates to *public works under open-market conditions*. During the financial periods 1929-30 and 1930-31, the action taken by the public authorities to cope with the unemployment problem did not include works of this kind. Only in the following two financial periods were credits—for small amounts—passed for this purpose. In the 1933-34 period, however, these works formed a prominent feature of the system.

The rules previously applied for *reserve works* were extensively modified. During the period 1929-30 to 1932-33, the works undertaken were not to be of such a kind that they might be expected to be put in hand on the open market in the near future, and they were, moreover, to be of utility to the State, to a commune or to some other public institution. From the 1933-34 period onwards, on the other hand, there are no works that may not, in principle, be carried out as reserve works, and it is, moreover, permissible for such works to be carried out for the benefit of private persons, provided that they are executed under arrangements made by a public body. As regards wages, too, the principles applied since the 1933-34 financial period differ from those previously in force, inasmuch as wages paid for reserve works approximate more closely to ordinary market rates.

The *volume* of public work contemplated in the 1933-34 period shows a considerable increase relatively to previous periods.

The following table, summarising certain data previously given in Sections III and IV, will enable the position to be gauged :

Table 11.

| Reserve State works | Number of schemes | Total cost | State contribution | Materials | Wages |
|---|-------------------|-------------|--------------------|------------|-------------|
| | | Crowns | Crowns | Crowns | Crowns |
| 1929-30 to 1932-33 | 418 | 92,861,537 | 76,205,723 | 17,561,034 | 75,300,503 |
| 1933-34 | 368 | 79,085,403 | 69,701,977 | 15,791,693 | 63,293,710 |
| State-subsidised communal reserve works : | | | | | |
| 1929-30 to 1932-33 | 1,389 | 36,988,705 | 16,073,635 | 10,495,405 | 26,493,300 |
| 1933-34 | 1,625 | 60,713,750 | 34,758,110 | 21,027,125 | 39,686,625 |
| Work carried out under open-market conditions : | | | | | |
| 1929-30 to 1932-33 | 4,116 | 10,685,399 | 7,684,292 | 3,827,744 | 6,857,655 |
| 1933-34 | 34,387 | 127,238,404 | 65,623,641 | 61,962,835 | 65,275,569 |
| Total, 1929-30 to 1932-33 | 5,923 | 140,535,641 | 99,963,650 | 31,884,183 | 108,651,458 |
| Total, 1933-34 | 36,380 | 267,037,557 | 170,083,728 | 98,781,653 | 168,255,904 |

The above table shows that, in the 1933-34 financial period, there was a considerable proportional increase in the volume of State reserve works, and that the figures relating to State-subsidised communal reserve works are also considerably higher than those for the period 1929-30 to 1932-33.

Under the heading "Work carried out under open-market conditions", the credits appearing in Table 4 have been included for the financial period 1933-34. Yet other credits among those of the unemployment budget may, however, be regarded as having their equivalents in the previous ordinary budgets. This is true, for instance, of credits for State buildings. The figures appearing in the above table and referring to the public works carried out under open-market conditions can nevertheless be regarded as characteristic of the expansion of such work during the financial period under review. Table 4 shows that the credits for public works included in the ordinary budget for the financial period 1933-34 have, in fact, not been reduced relatively to previous financial periods. If the credits referred to above for the financial periods 1929-30 to 1932-33, under the heading "Work carried out under open-market conditions", are deducted, it will be seen, on the contrary, that there has been a notable increase.

Finally, in the matter of the *financing of unemployment credits*, the 1933-34 financial period also displays a marked difference relatively to previous financial periods. Recourse was had in greater measure to loans, which were used to cover certain credits—those of the unemployment budget—even though the immediate payment of interest could not be counted upon. The redemption of loans floated for the purpose is to be effected on a short-term basis by means of special funds.

LIST OF DOCUMENTS, ATTACHED TO THE REPLIES FROM THE
VARIOUS GOVERNMENTS AND WHICH HAVE NOT BEEN PUBLISHED OR
FROM WHICH ONLY EXTRACTS HAVE BEEN REPRODUCED.

Union of South Africa.¹

Schedule of Public Works carried out by Local Authorities in the Province of Natal.

Australia.

1. New South Wales : Report of the Metropolitan Water Sewerage and Drainage Board of the Department of Local Government.
2. South Australia : Report of the Municipal Tramway Trust, Adelaide.

China.

1. Report on Public Works of the Kiangsi Provincial Government.
2. Official information published by the Hupei Provincial Government relating to Public Works undertaken in the Municipality of Hankow.
3. Classification List of Public Works undertaken by the Reconstruction Bureau of the Chahar Provincial Government.
4. Report on Public Works of the Kiangsu Provincial Government.
5. Report on Public Works of the Honan Provincial Government.
6. Report on Public Works of the Peiping Municipal Government.
7. Report on Public Works of the Civil Engineering Bureau of the Tientsin Municipal Government.
8. A Plan for improving the Hwai River.
9. Report on Public Works of the Municipal Government of Shanghai.
10. Report on Public Works of the Reconstruction Commission.
11. Yangtse River Commission :
 - (a) Brief Study of a Water-Power Project on the Upper Yangtse;
 - (b) The Improvement of Chinkiang Harbour and its River Bed.Many of these reports are accompanied by plans and drawings.
12. The National Construction Commission : Statistical Report on Electric Utilities in China.

Denmark.

1. Proposal by the Drainage and Land Improvement Commission of the Department of Tonder, regarding the organisation of drainage of the Tonder Marsh and adjoining districts (March 29th, 1922).
2. Law No. 137 of April 18th, 1925, regarding the drainage of the Tonder marsh.

¹ Information additional to the reply previously sent by this Government and published in the first volume.

3. Law of December 23rd, 1925, amending the Law of April 18th, 1925, regarding the drainage of the Tonder marsh.

4. Lecture on March 23rd, 1929, regarding the cultivation of moorland (" Vildmose ") and the results obtained.

Egypt.

1. List of Municipal Electrical Installations :

(a) Projects carried out since 1929;

(b) Projects under preparation;

(c) Probable future projects for electric-light installations.

2. List of Filtered-water Plant and Artesian Well Waterworks created since 1929.

France.

Ministry of Labour : Legislative and Administrative Provisions of the Plan for Large-scale Works to reduce Unemployment, 1934.

United States of America.¹

1. "Federal Emergency Administration of Public Works : Cost of construction per Man per Year and Number of Men employed per Year for Various Types of Projects, based upon Actual Expenditure and Employment on Completed Federal and Non-Federal Projects."

2. *Monthly Labor Review*, United States Department of Labor : "Man-Hours of Labor per Unit of Output in Steel Manufacture."

¹ Information additional to the reply previously sent by this Government and published in the first volume.

(Communicated to the
Council and the Members
of the League.)

Official No: C.276.M.143.1935.VIII.

LEAGUE OF NATIONS

Geneva, July 12th, 1935.

ADVISORY AND TECHNICAL COMMITTEE FOR COMMUNICATIONS AND TRANSIT.

PERMANENT COMMITTEE ON ROAD TRAFFIC.

REPORT ON THE COMMITTEE'S NINTH SESSION

Held at Geneva from June 17th to 21st, 1935.

4

All the members of the Committee were present except
M. ROUBIK.

The following also attended the session:

For the International Tourist Alliance (I.T.A.): M. Ch. DUVIVIER,
Engineer, Vice-President of the Belgian Touring Club,
Member of the Permanent Bureau.

For the International Association of Recognised Automobile Clubs
(I.A.R.A.C.): M. J. HANSEZ, Chairman of the International
Traffic and Customs Commission.

Colonel G. PERON, Secretary-General.

Colonel O'GORMAN, Vice-President of the Royal Automobile
Club of Great Britain.

For the International Institute of Statistics: Dr. J.H. van ZANTEN,
Director of the City of Amsterdam Statistical Office,
Rapporteur of the Institute's Commission on Uniform Accident
Statistics.

For the League of Red Cross Societies: Major PETERSEN, Chief of the
First-Aid Section.

For the International Transport Workers' Federation: Mr. Joseph
TAYLOR, Political Secretary, Transport and General Workers'
Union.

For the International Union of Towns and Local Authorities:
Dr. G. de SCHULTHESS, Director of the Union of Swiss Towns.

For the International Labour Office: M. J. DRBOHLAV.

Secretary: Mme. LEHMANN.

Series of League of Nations
Publications

VIII. TRANSIT ✓
1935.VIII.4.

I. COMMUNICATIONS REGARDING THE ACTION TAKEN ON THE RESOLUTIONS ADOPTED BY THE COMMITTEE AT ITS EIGHTH SESSION REGARDING THE FOLLOWING QUESTIONS:

1. Height at which signals are placed;
2. Signals to be made by drivers of motor vehicles;
3. Signals to be made by traffic police;
4. Light signals;
5. Marking of ambulance vehicles and facilities to be granted to them when crossing frontiers;
6. Triptych system.

1 - 4. The Secretary of the Committee explained that the Committee's recommendations on the first four of the above questions had been conveyed to Governments by document C.671.M.321.1933.VIII. Governments were not asked what action they contemplated taking on those recommendations, but a number of them have made communications to the Secretariat on questions 1 and 2, and these were noted by the Committee (see Annex 1).

5. Facilities to be granted to ambulance vehicles. The Committee's recommendation regarding facilities to be granted to ambulance vehicles when crossing frontiers had been adopted in consequence of a request from the Permanent International Commission for First Aid on Roads, but the Commission has intimated to the Secretariat that, for reasons of expediency, it would prefer no general recommendation to be made on the subject. The Secretariat therefore felt that it would be meeting the Committee's wishes by not conveying the recommendation to Governments.

6. Triptych system. At its last session, the Permanent Committee expressed the hope "that the States which have not yet adopted the system recommended by the Advisory and Technical Committee will proceed to a fresh examination of the question, based on the principles set forth in the Advisory Committee's resolution".

After the Committee's eighth session, the Secretariat received confirmation of the French Government's adoption of a triptych system meeting the Advisory and Technical Committee's desiderata. It was also informed that the general question of the temporary importation of motor vehicles was being investigated by the international tourist organisations in conjunction with the Customs departments. The Secretariat did not therefore think it desirable to convey the Committee's recommendation on the subject to Governments.

The Committee endorsed the Secretariat's views, and considered that no action was called for on either of these questions for the present.

II. INSTRUMENTS ADOPTED AT THE EUROPEAN CONFERENCE ON ROAD TRAFFIC: PRESENT SITUATION WITH REGARD TO SIGNATURES, RATIFICATIONS OR ACCESSIONS.

The Committee noted the present position with regard to signatures, ratifications and accessions, as set out in the note by the Secretariat (see Annex 2).

Prince Ghika informed the Committee that on June 19th, Roumania had ratified the Convention on the Unification of Road Signalling and the Convention on the Fiscal Regime of Foreign Motor Vehicles. The Roumanian Government signed at the same time the Agreement to facilitate the Procedure in the Case of Lost or Undischarged Triptychs.

III. SIGNALS FOR LEVEL-CROSSINGS.

The Chairman of the Special Committee for the study of signals at level-crossings gave an account of the results of the study which that Committee had carried out.

The Special Committee had abundant information at its disposal, as almost all countries supplied very interesting particulars, which gave the impression that every country was keenly concerned with the problem. Some of them have already taken steps in the matter, while others are considering doing so. It would seem, indeed, that, in view of the present position of road and rail traffic, the 1926 Convention on motor traffic urgently requires to be supplemented.

In preparing its draft (see Annex 3), the Special Committee took into account to the utmost possible extent the action already taken in the different countries, in order to facilitate the conclusion of an international convention. Countries could hardly be asked to give up systems they had already introduced at home.

Although the Railway Congress held at Cairo in 1933 had established four categories of level-crossings, the Special Committee considered that the category of private crossings or crossings reserved for pedestrians was of no importance to road traffic. It therefore retained only the following three categories:

- A. Level-crossings with gates:
- B. Level-crossings without gates but with automatic signals:
- C. Level-crossings without gates and without automatic signals.

The Special Committee considers that, as these three categories actually exist, it had to propose suitable signals for each of them, without entering into the question whether any particular level-crossing could or should be classed in any one of these three categories. For each of the categories the arrangements it proposes are those forming the subject of Chapter I (see Annex 3) regarding railways of general interest. As regards railways of local interest and tramways, the Committee indicates in Chapter II that, in its opinion, warning signals should be arranged in the same way, and should have the same shape and the same significance as for level-crossings on railways of general interest. As regards their use, however, the Governments of the respective countries might allow certain simplifications of the system in individual cases.

Lastly, the Special Committee added to its proposals a number of recommendations contained in Chapter III. In particular, it urges - despite the heavy cost to the countries entailed by the abolition of level-crossings and their replacement by overhead or underground crossings - the desirability of not sparing the necessary expense in the paramount interests of safety.

The Special Committee's draft was submitted to the Road Congress held at Munich in September 1934. The Congress recognised the great importance of the measures advocated, particularly if their adoption could be secured in every country, and recommended that the draft should be studied by an International Conference.

The Permanent Committee on Transport by Rail, to which the Special Committee's draft was submitted, was good enough to invite the Chairman of the latter Committee to attend its meetings. It recognised the desirability of, and the urgent need for, an international conference, particularly in view of the introduction of rail motors on railways and the increase of heavy lorry traffic on roads. It is of the greatest importance that there should be co-ordination of rail and road before countries take divergent action likely to increase the difficulty of subsequent international regulation.

Observations were submitted on behalf of the International Association of Recognised Automobile Clubs by Mr. O'Gorman and M. Hansez. They referred, in particular, to the problems raised by the question of right of way as between railway trains and road users.

M. Duvivier, on behalf of the International Tourist Alliance, suggested a recommendation to the effect that the railways should not be authorised to replace guarded by unguarded level-crossings.

Several members of the Committee observed that these questions must be set aside, as the report, the conclusions of which were submitted, had purposely been confined to the study of the signalling systems applicable to each of the three categories of level-crossings, irrespective of the question of right of way or of a choice between the three categories on any particular point.

After an exchange of views, the Committee adopted the following resolution:

"The Permanent Committee on Road Traffic,

"Having taken note of the report of the Special Committee for the Study of Signals at Level-Crossings, dated May 14th, 1935;

"Having likewise noted the resolution adopted by the Permanent Committee on Transport by Rail, dated May 31st, 1935, and the annex thereto (see Annex 4);

"And having deliberated thereon:

"(1) Approves the Special Committee's report subject, however, to the amendments reproduced below (see Annex 5);

"(2) Considers, having regard to the urgency and importance of the question from the standpoint of public safety and the regularity of traffic at level-crossings, that, on these bases, the question has been sufficiently studied to form the subject of a draft Convention to be framed on the initiative of the Advisory and Technical Committee for Communications and Transit and submitted to an international conference.

IV. ROAD SIGNAL QUESTIONS.

The Committee, having received from the I.A.R.A.C. a request for the examination of the following questions:

- (1) Utilisation of the place sign at the entrance to built-up areas;
- (2) Creation of a new sign prohibiting overtaking;
- (3) Restrictions to be placed on the use of sound-warning signals by motor-horns and creation of a new sign to denote this restriction;

examined these question.

In addition, at the request of one of its members, the Committee examined the question of the creation of a new sign forbidding vehicles to pass each other (see 2(a) below).

1. The Committee adopted the following recommendation regarding the utilisation of the place sign provided for in paragraph III (d) of the Annex to the Convention of 1931 concerning the Unification of Road Signals(1).

"In countries in which traffic regulations are different according to whether the driver is in a built-up area or not, and which desire to provide an indication of this difference in the regulations, the place sign provided for in the Convention shall be utilised to indicate the point at which the application of these rules begins in the locality.

"The reverse side of the sign may be utilised to indicate the name of the next locality or of the next traffic centre. If not utilised for this purpose, the reverse side shall be painted a light colour with a diagonal black bar."

2. Sign prohibiting overtaking. An exchange of views took place on the nature of the sign to be adopted. The system consisting in placing two cars side by side, one red and the other black, was rejected because, generally speaking, the figures to be placed on a white background on international

(1) Document C.231.M.99.1931.VIII.

signs are always black. Moreover, an indication by means of arrows appears preferable to an indication by means of figures representing cars because the prohibition of overtaking applies not only to motor-cars but also to other vehicles.

The Committee adopted the following recommendation:

"The Committee, in studying the conditions of the overtaking of vehicles on the road, recognises that, without prejudice to the observance of the general rules in force, it is necessary that the police authorities should be able, in certain special cases, to indicate by a special sign on the road an express prohibition of overtaking.

"The Committee accordingly proposes the creation of a sign having the following meaning: prohibition of overtaking of motor or any other vehicle the dimensions of which are comparable with those of a motor-car. The figure shall consist of a red disc with a round white or pale yellow centre, with two black arrows and a diagonal red bar indicating prohibition, as shown in Figure 1 ¹ (Annex 6). The point from which the special rule will cease shall, if the authorities think fit, be indicated by utilising the reverse side of the sign giving instructions to traffic proceeding in the opposite direction; this reverse side shall accordingly be painted a light colour with a diagonal black bar, as shown in Figure 4 (Annex 6)."

2 (a). Sign prohibiting vehicles from passing each other. In connection with the prohibition of overtaking, the Committee considered the desirability of creating in similar conditions a sign prohibiting vehicles from passing each other, which will only be used, however, in rare cases.

The Committee adopted the following recommendation:

"For reasons of the same character as those concerning the conditions of overtaking on the road, the Committee recognises that, without prejudice to the observance of the general rules, it is necessary that the police authorities should be able, in certain particular cases, to indicate by a special sign on the road an express prohibition for vehicles to pass each other (in opposite directions).

"The Committee accordingly proposes the creation of a sign which will have the following meaning: prohibition for motor vehicles or other vehicles with dimensions similar to those of a motor-car to pass each other (in opposite directions). This sign implies a prohibition of overtaking in addition to that of passing. The figure shall consist of a red disc with a round white or pale yellow centre, with two black arrows in opposite directions crossed by a red bar indicating a prohibition, as shown in Figure 2 ¹ (Annex 6). The point from which the special

1 In countries where traffic keeps to the left, the arrows will be modified accordingly.

rule will cease shall, if the authorities think fit, be indicated by utilising the reverse side of the sign giving instructions to traffic proceeding in the opposite direction; this reverse side shall accordingly be painted a light colour with a diagonal black bar, as shown in Figure No. 4. (Annex 6)."

3. Restriction to be placed on the use of sound warning signals by motor-horns, and creation of a new sign to denote such restriction. Colonel Péron explained the reasons for which the International Association of Recognised Automobile Clubs had asked for the insertion of this item on the Committee's agenda. In view of the abuse of motor-horns by many drivers, the Association had endeavoured to find a remedy more particularly by organising silence weeks in various large towns, to prepare the way for a gradual abolition of the use of motor-horns on as large a scale as possible.

The Association asked that a special sign should be adopted for towns prohibiting the use of motor-horns except in case of danger. This sign might consist of a red plate with a white centre, containing a picture of a motor-horn crossed by a red bar.

The members of the Committee explained in turn what had been done in this connection in their respective countries. Their statements showed that more or less complete restrictions had hitherto given good results, particularly in the United Kingdom, Italy, Sweden and Switzerland, and that the proposed sign might be selected.

For these reasons the Committee adopted the following recommendation:

"In certain built-up areas, as an exception to the general rules concerning the use of sound signals, the competent authorities may decide that such signals shall not be used except in case of danger.

"This special regime shall be indicated by the following sign: red disc with round white or pale yellow centre, bearing the figure of a motor-horn crossed by a diagonal red bar, as shown in Figure 3 (Annex 6). The point from which the special rule will cease shall, if the authorities think fit, be indicated by utilising the reverse side of the sign giving instructions to traffic proceeding in the opposite direction; this reverse side shall accordingly be painted a light colour with a diagonal black bar, as shown in Figure 4 (Annex 6)."

V. CLAIMS PUT FORWARD BY MOTOR-DRIVERS.

These claims were divided by the Advisory and Technical Committee for Communications and Transit into three categories: those falling exclusively within the province of the Permanent Committee; those to be studied jointly by the Permanent Committee and the International Labour Organisation and those which appear to fall exclusively within the province of the International Labour Organisation.

In the note prepared by the Secretariat (see Annex 7) this last-named category was left out of account. The first two categories of questions were examined by the Committee at its eighth session; it appeared that, for the present, some should be left for settlement by the national laws of the various countries. Others were examined by the Committee, the results of this examination being set forth in the above-mentioned note. The results in the case of questions to be studied jointly by the Committee and the International Labour Organisation were communicated to the latter, which submitted certain observations reproduced in Annex 7.

The Permanent Committee asked its Secretariat to collect information on three points of the programme of motor-drivers' claims, namely:

- (1) Statistics of traffic accidents and their causes;
- (2) Physical qualifications of motor-drivers;
- (3) Conditions for the issue and withdrawal of motor-drivers' licences.

Mr. Taylor, on behalf of the International Transport Workers' Federation, pointed out in the first place that the position had developed considerably since 1929, the year in which the Federation drew up its programme of claims. Since that date, measures had been taken in various countries which had afforded better conditions for motor-drivers, thus meeting certain points of the Federation's programme, although those measures did not settle the whole question. Mr. Taylor did not object to occupational questions being examined exclusively by the International Labour Organisation, but pointed out that a question of safety was involved, with which the Committee must necessarily deal, since the excessive fatigue of a driver was likely to lead to accidents.

M. Hansez objected that no limitations had been applied nor could they be applied to non-professional drivers, tourists driving their own cars, etc.

A member of the Committee replied that the question was an entirely different one in the case of this last-named class of drivers, who were free to stop when they wanted to, whereas professional drivers had to obey the orders of their employers, and the latter should not be allowed to impose working conditions which were likely to interfere with safety.

That was the standpoint from which Mr. Taylor was considering the question. From that standpoint it was a purely technical one and clearly came within the province of the Permanent Committee on Road Traffic.

After an exchange of observations between the members of the Committee, the Chairman, summarising the discussion, recognised that, from the standpoint mentioned by Mr. Taylor, the question of limiting the working hours of professional motor-drivers was a question of safety; however, it could only be usefully studied with due regard for the general working conditions applying to those drivers, which were being investigated by the International Labour Organisation. Moreover, the study must have reference to accident statistics and the critical examination of their causes. The problem would continue to be studied by the Committee on those lines from its particular standpoint.

M. Drbohlav said that, as soon as the International Labour Organisation had completed its study of the questions relating to working conditions included under Item 1 of the programme of claims put forward by motor-drivers, the International Labour Organisation's report would be placed at the disposal of the International Transport Workers' Federation and the Permanent Committee on Road Traffic.

The Committee took note of this statement and of the International Labour Organisation's observations on certain points of the motor-drivers' claims. (See Annex 7).

Statistics of Traffic Accidents. The Committee noted the results of the enquiry carried out by the Secretariat regarding existing statistics and the methods of compiling them employed in the various countries (Document C.C.T./C.R./92).

M. van Zanten thanked the Committee for having been good enough to invite the International Statistical Institute to be represented at its ninth session. He emphasised the great importance of the efforts to standardise statistics of traffic accidents and mentioned the difficulties in the way of that standardisation at the present time, which were chiefly due to the differences in the definitions employed by the various countries. Whereas in one country only an accident which caused the immediate death of a person was regarded as a fatal one, in other countries a fatal accident was one which had caused the death of the victim within a given period. Moreover, appreciable differences existed between one country and another as regards particulars of the consequences of accidents, the age of the victims, etc., and the method of analysing the data collected. All those differences added considerably to the difficulty of comparing statistics. M. van Zanten thought that close collaboration should be established between the Committee and the International Statistical Institute with a view to standardising definitions and methods. This collaboration might take the form of the setting-up of a joint committee to study the methods adopted in the different countries and to draw up standard definitions so as to ensure the comparability of the statistics.

M. Petersen explained the reasons why the Secretariat of the League of Red Cross Societies was interested in the question of statistics. The International Red Cross Conference held at Tokio in 1934 had recognised the importance of traffic accident statistics, to enable the National Red Cross Societies to take useful action and, in particular, to organise the various methods of instructing young people in regard to traffic dangers and regulations.

The Secretariat of the League of Red Cross Societies was in a position to obtain through the national Red Cross Societies in all parts of the world official statistics already compiled in certain countries. But, as the Permanent Committee on Road Traffic was probably already in possession of data of that kind, the Secretariat of the League could also obtain unofficial statistics from the organisations for first aid on

roads controlled by the national Red Cross Societies.

If accidents were classified according to day and hour, as was already done in several countries, it appeared to be logical also to obtain particulars of the number of vehicles on the roads and to calculate the exact amount of traffic on the different days of the week and at different hours of the day. Particulars of the number of accidents per year, per day or per hour could thus be compared with the number of vehicles on the roads during the same period.

Several members of the Committee, and also the representatives of the I.A.R.A.C., supported M. van Zanten's arguments in favour of a uniform framework for traffic-accident statistics. They emphasised the importance of collaboration with the International Statistical Institute and with the League of National Red Cross Societies, and possibly with other international organisations.

The Committee also took note of a recommendation adopted by the International Technical Conference for First Aid on Roads, held at Budapest in May 1935, regarding the establishment of official statistics of traffic accidents (see Annex 8).

Mr. O'Gorman submitted data and graphs relating to the United Kingdom statistics. In particular, he emphasised the importance of including in the statistics figures relating to the volume of traffic on the roads.

The Chairman, summarising the observations exchanged, pointed out that the determination of the organisations which would co-operate in this study should be left to the Advisory and Technical Committee for Communications and Transit.

The Committee adopted these views and requested the Transit Committee to arrange to set up a committee consisting of the smallest possible number of competent persons to propose a uniform framework for the statistics to be compiled and to lay down the necessary technical principles.

Physical Qualifications of Motor-Drivers. Mr. Taylor said that the question raised by the International Transport Workers' Federation had been settled in a large number of countries on the lines laid down in the 1929 programme of claims. The Federation would therefore not press the Committee to take further action in the matter. If, however, it was proposed to subject professional drivers to periodical medical examinations, the Federation would urge that steps should be taken to see that the drivers who had passed a first examination and had been following their occupation for some time were not unfairly deprived of their means of livelihood.

Mr. Franklin explained the system which had been adopted in the United Kingdom after a very exhaustive enquiry that had led the investigators to conclude that it was useless to require motor-drivers to undergo a medical examination.

A statement by the applicant, renewable each year, replying to certain definite questions regarding his physical condition was just as effective as a medical examination and much less costly. The giving of false information in this statement might render the offender liable to a maximum fine of £50 or a maximum penalty of six months' imprisonment, or both. The system had stood the test of time and it had been found that in nearly every case the information given was correct.

M. Hansez was of opinion that the results of the enquiry justified the attitude of countries which required a medical examination only in the case of certain classes of motor-drivers; he did not think it possible to contemplate the extension of that examination to non-professional drivers. Among professional drivers, a distinction should, he thought, be made between those who were in the employ of a private individual and those who drove public conveyances. He asked the Committee not to advocate a medical examination as a necessity, and stressed the fact that all countries in which traffic was very heavy did not apply that system or had ceased to apply it.

M. Walckenser explained the system in force in France, where only drivers of passenger conveyances or lorries weighing more than 3,000 kilogrammes were required to undergo a medical examination. Other applicants for a driver's licence were not asked to submit to a medical examination unless, during the proficiency tests, the examiner had reason to suspect that their physical condition was unsatisfactory.

Mr. O'Gorman asked whether the statistics of any country showed that the institution of the medical examination had helped to reduce the number of accidents. Personally he did not think that was the case. The proportion of accidents due to the driver's drunkenness, physical disability or incompetence was insignificant. He doubted whether the medical examination or driving tests were of any practical use. He had the impression that countries which had introduced them had embarked upon a very costly course without any proof of the efficacy of the measures they had adopted.

M. Duvivier and M. Hansez considered that the system in force in the United Kingdom was acceptable.

Prince Ghika thought that the Committee should emphasise the fact that, even if it were not thought absolutely necessary, the medical examination afforded an additional guarantee of security. The institution of the medical examination for drivers of public conveyances or heavy lorries was undoubtedly a step in the right direction.

M. Valsinger agreed with this view.

Mr. Franklin pointed out that the medical examination could be effective only if it was periodical. Such an examination would be very costly. In his opinion

a statement to be renewed each year was preferable.

The Chairman said that the results of the enquiry (see Document C.C.T./C.R./88) showed that, out of 51 countries, the medical examination, whether renewable or not, was compulsory in 31 countries for all categories of drivers and in 6 for certain categories only. In other countries the examination was not required, but the applicant had to make a statement regarding his physical condition, or a medical examination was carried out whenever there was reason to suspect that his physical condition was unsatisfactory.

In view of these findings and of the observations exchanged, the Chairman pointed out that, in practice, there might be advantages and disadvantages attaching to each of the different systems, and that at the present stage of the question it did not appear possible to recommend the general adoption of any particular system of ascertaining the physical qualifications of applicants.

Condition for the issue and withdrawal of motor-drivers' licences. The Chairman said that the enquiry undertaken (See Document C.C.T./C.R./93) showed that the judicial and administrative organisation of the different countries afforded motor-drivers sufficient guarantees in the matter of the withdrawal of their licences and of appeals against such withdrawal.

Unification of direction of traffic. (Question No. 23 of the Programme of Claims put forward by motor-drivers concerning the adoption in all Continental countries of uniform regulations stipulating the right-hand rule of the road.)

This question, the importance of which was recognised by the Committee, especially as regards Continental Europe, formed the subject of a recommendation by it which was communicated to the Governments in 1927. The question is not yet ripe for further consideration, but its development will continue to be followed.

Signals to be made by drivers of motor vehicles. (Question No. 27 of the Programme of Claims put forward by motor-drivers concerning the fitting of motor vehicles with mechanical signalling devices which can be illuminated at night.)

This question formed the subject of a recommendation¹ by the Committee, which was communicated to the Council and the States Members of the League. Substantial progress has already been made in various countries, and the Committee instructed the Secretariat to enquire into the present position and the Governments' intentions in this matter.

VI. LIGHT SIGNALS.

Reverting to the question of light signals, in regard to which the Governments have not submitted any observations, a member of the Committee pointed out that it was

1 See document C.671.M.321.1933.VIII.

nevertheless necessary to consider the improvement of signalling at cross-roads, particularly in towns, by means of lights.

Mr. Franklin, M. Mellini, M. Rothmund and M. Urgoiti explained the position in their respective countries.

M. Hansez also described the position in Belgium.

Prince Ghika said that there was another question connected with signals for motorists - namely, signals used for the crossing of roads by pedestrians.

Mr. O'Gorman referred to a special difficulty encountered at cross-roads by drivers when the red signal appeared and they wished not to go straight on but to turn either right or left, in which case the present signals did not appear to give them the facilities they required.

These statements show that, at the present time, the standardisation of signalling systems is being studied in the different countries and that in some of them doubts are felt as to the merits of the respective systems. For instance, in France, where, as previously stated, the single-colour system used to be applied throughout the whole country, the City of Paris is now making tests with the three-colour system.

Moreover, in certain countries the light signal for motorists consists of the simultaneous appearance of two different coloured lights, a system the advantages and consequences of which have not yet been defined with sufficient uniformity in the various countries.

After discussing the question, the Committee found that the data at present available are not sufficient to enable it to pass any final opinion on the position, which is in course of development; nevertheless, international guiding principles would be of great utility and an enquiry should be made as soon as possible of the Governments of European countries as to the actual position, by means of a questionnaire which is being drawn up by the Committee (see Annex 9).

As soon as the replies to this questionnaire have been received, the Secretariat will summarise them and the Committee will again be convened.

VII. COMMUNICATION BY THE CHAIRMAN CONCERNING COMMERCIAL MOTOR TRANSPORT.

The Chairman read a letter which he had received from the International Chamber of Commerce regarding the possibility at the present time of regulating commercial motor transport by means of an international convention. A report by the Secretariat of the International Chamber of Commerce was communicated to the members of the Committee. (See Annex 10).

The Chairman said that this question had been carefully considered at the European Conference on Road Traffic in March 1931 and that the latter had decided to suspend its work in this matter. Moreover, the Permanent Committee, at its

last session, had decided not to continue the examination of the question at the moment, but to keep it on its programme with a view to an exhaustive investigation when the time appeared ripe.

The Chairman asked the members of the Committee to express their views on the matter.

The members of the Committee said that the situation in their respective countries had not undergone any appreciable modification since 1933, and that, at the present time, the only possible solution was the conclusion of bilateral agreements. Several of those agreements had already been concluded, with favourable results.

The Committee asked the Secretariat to obtain particulars of the bilateral agreements already concluded between European States and the results thereby obtained.

The Committee will not fail to follow the subsequent development of the question, particularly as regards the work of the International Chamber of Commerce.

VIII. COMMUNICATIONS BY THE SECRETARIAT.

The Secretary of the Committee gave an account of the meetings of the International Traffic and Customs Committee and the International Touring Committee of the I.A.R.A.C. which she had attended. At these meetings, certain questions were dealt with which were of special interest to the Committee.

Application of the 1931 Convention on the Taxation of Foreign Motor Vehicles. The International Traffic and Customs Committee found that, although, at the time it was drawn up, the Geneva Convention of March 30th, 1931, constituted an advance from the point of view of exemption from taxation, in several countries accession to the Convention had led to the abolition of the conventions concluded on a reciprocal basis which formerly existed and which were often more favourable to foreign motorists. Moreover, the fiscal permit system, which necessitates a certain amount of supervision, had given rise to many difficulties. In view of these drawbacks, which had already been foreseen at the 1931 Conference by the representative of the I.A.R.A.C., the Committee reached the following conclusions:

"(1) that countries which had acceded to the Geneva Convention should not require the production of the fiscal permit in order to exempt from taxation, not only nationals of the countries which have likewise acceded to the Convention, but also nationals of countries which have not acceded to it. This result can be achieved if those countries conclude bilateral agreements with the other countries;

"(2) that countries which have not acceded to the Geneva Convention should not do so, but should sign conventions on a reciprocal basis with other countries, following Switzerland's example."

M. Rothmund explained that, for practical reasons, the Swiss authorities had refrained from exercising the form of supervision involved by the fiscal permit, since they considered that the cost of this supervision at the frontier would be greater than the fiscal benefits which it might yield. The Swiss Government had sent a request to other States parties to the Convention urging them not to enforce the fiscal permit system provided for in the Convention. Favourable replies had been received from the Governments of Belgium, Denmark, Finland, Italy, the Netherlands, Spain and Sweden.

The United Kingdom Government had signified its intention of taking up the question with the Swiss Government. The Committee noted with interest the particulars given.

Abolition of the use of the international driving licence and the international certificate for motor vehicles. The Secretary of the Committee explained that, in order to simplify formalities as far as possible, the International Touring Committee of the I.A.R.A.C. had considered the possibility of abolishing the international driving licence, at any rate between neighbouring countries. According to the information given by the members of the Committee, Germany had concluded an agreement on a reciprocal basis with Switzerland and Luxemburg, and proposed to conclude others with a view to the abolition of the international road traffic documents. France had on two occasions allowed foreign motorists of thirteen countries to enter the country for a limited period, on production of their national driving licences, and had approached the Governments of those countries with a view to obtaining reciprocal treatment. Norway still recognises the national licences of Danish, Finnish and Swedish motorists (reciprocity agreements having been concluded in 1931 between these four countries); in the case of nationals of other countries, the authorisation to enter Norway is left to the discretion of the Customs or Police Office, and, for this reason, such motorists are recommended to provide themselves with international certificates or licences. Switzerland had adopted the same regime with Germany, Austria and Italy. The Committee had not considered it expedient to recommend the abolition of international documents, which might in some cases hamper international traffic, but it had recommended that the various countries should be urged not to require the production of those documents and to content themselves with motorists' national documents. In order to facilitate the perusal of national documents, the Committee had expressed the hope that the clubs would endeavour to obtain the standardisation in all countries of the driving licence and registration document.

Revision of the International Convention of 1926 relative to Motor Traffic and efforts to standardise the general road-traffic regulations. The International Touring Committee considered that, since 1926, motor traffic had grown to such an extent that the actual traffic conditions had been appreciably modified. As each country had thought fit to amend the international regulations to meet its internal traffic requirements, it appeared advisable to prepare a new convention.

The Committee decided to request the Secretariat of the I.A.R.A.C. to investigate the regulations in force in the different countries in regard to road traffic in general, so as to arrive at the most suitable provisions for insertion in a new international convention to replace the 1926 Convention relative to Motor Traffic. The results of this enquiry would also enable the I.A.R.A.C. to judge of the possibility of standardising the general road traffic regulations.

Convocation of an international conference on the standardisation of Customs regulations concerning tourist traffic. The Secretary of the Committee explained that the question of the temporary importation of motor vehicles under the triptych system or Customs carnet had been under consideration for a long time past by the international touring associations, such as the I.T.A., the I.A.R.A.C. and the International Aeronautic Federation, in collaboration with the Customs administrations.

The French Government informed the Secretariat that it proposed to request the League of Nations to convene an international conference with a view to the institution of a uniform regime for the temporary export and import, not only of motor vehicles, but also of tourist aeroplanes and pleasure craft.

Colonel Péron explained that the preliminary draft Convention drawn up by tourist organisations with a view to the standardisation of the regime of temporary import (triptychs and Customs carnets) was confined to motor vehicles. The representatives of the French Customs had stated that they considered it advisable to enlarge the scope of the Convention, so as to cover the temporary importation of any article which a traveller might import into a country. This proposal applied therefore not only to tourists but also to travellers in general.

The Central Council of International Touring, in agreement with the representative of the French Government, appointed Colonel Péron General Rapporteur, and instructed him to draw up a scheme for a convention in consultation with the chief international groups, and, more particularly, the International Aeronautic Federation for aircraft, and the yachting clubs for yachts, other pleasure craft, etc.

The framing of this preliminary draft would take at least one year. The French Government proposed to request the League of Nations to convene the conference, which would examine the draft with a view to arriving at an international agreement.

Mr. O'Gorman emphasised the importance, from the point of view of the simplification of formalities, of abolishing the distinction previously made between travellers and tourists.

The Committee took note of these communications.

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ANNEX 1.

(C.C.T./C.R./94.)

May 27th, 1935.

NOTE BY THE SECRETARIAT ON THE ACTION TAKEN IN PURSUANCE
OF CERTAIN RESOLUTIONS ADOPTED BY THE PERMANENT COMMIT-
TEE AT ITS EIGHTH SESSION.

The recommendations adopted by the Permanent Committee at its eighth session concerning the following questions:

- (1) Height at which signals are placed;
- (2) Signals to be made by drivers of motor vehicles;
- (3) Signals to be made by traffic police;
- (4) Light signals;

have been communicated to the Council and to the States Members of the League in the pamphlet "Road Signalling" (document C.671. M.321.1933.VIII). The recommendations concerning questions 1 and 2 have furthermore been brought to the notice of Governments by circular letters. The Governments were not explicitly requested to inform the Secretary-General of the League of any action they proposed to take in pursuance of the recommendations of the Permanent Committee. Only a few of them have communicated the following observations with regard to questions 1 and 2.

1. Height at which signals are placed.

Bolivia. By a letter dated May 23rd, 1934, the Bolivian Government stated that it had forwarded the Permanent Committee's recommendation to the Municipal Council of La Paz.

China. The Chinese Government, in a letter from the Director of the Permanent Bureau of its delegation, dated January 24th, 1935, stated that there are no signals in Chinese territory which are too high to be seen by drivers of low-bodied vehicles.

Costa Rica. By a letter dated May 26th, 1934, the Government of Costa Rica stated that it had forwarded the Permanent Committee's recommendation to the Department of Public Works for any necessary action.

Estonia. By a letter dated April 25th, 1934, the Estonian Government stated that it would not fail to draw the attention of the competent authorities to the Permanent Committee's recommendation.

Latvia. The Latvian Government, by a letter from the Chief of the Western Section of the Ministry of Foreign Affairs, dated June 14th, 1934, stated that in Latvia motor-traffic signals were fixed at a height of two metres from the ground and it was impossible in practice to put them lower.

Norway. The Norwegian Government, through its permanent delegate, in a letter dated October 9th, 1934, asked at what height the Permanent Committee thought the signals should be placed. The Secretariat replied that the Permanent Committee had not definitely stated at what height signals should in its opinion be placed, the only condition being that they should be visible by a driver of a low-bodied vehicle. The Norwegian permanent delegate then informed the Secretariat that he had duly communicated this information to the authorities concerned.

Portugal. The Portuguese Government, in a letter from its delegation dated May 23rd, 1934, stated that, in the case of the new signals adopted in the year 1934 by the Ministry of Public Works and Communications, the height above the ground of the lower edge of the plates was fixed at 1 metre for triangular and rectangular plates and at 1 m.50 for round disks.

Uruguay. The Government of Uruguay, in a letter dated May 25th, 1934, stated that it had forwarded the Permanent Committee's recommendation to the General Directorate of Roads.

2. Signals to be made by drivers of motor vehicles.

Austria. In a letter from the Federal Minister for Foreign Affairs, dated September 29th, 1934, the Austrian Government stated that, under §15 of the Decree relating to motor traffic (Kraftfahrverordnung) of May 12th, 1930, automobiles, and motor-cycles, if three-wheeled or fitted with a sidecar, in which the driver's seat is placed in such a position as to make it difficult for him to make the signals laid down by the regulations, should be fitted with a reliable mechanical device which is also visible at night and designed for the purpose of giving warning of change of direction or speed. The regulations concerning these mechanical devices have been set forth in detail in §17 of the draft for a new decree on motor traffic in a manner which takes full account of the recommendations of the Permanent Committee.

Bolivia. By a letter dated May 23rd, 1934, the Bolivian Government stated that it had forwarded the Permanent Committee's recommendation to the Municipal Council of La Paz.

Bulgaria. By a letter dated October 1st, 1934, the Bulgarian Government stated that, so far as concerns the general adoption in all countries of mechanical signals indicating the direction of vehicles which are so constructed as to make it impossible for drivers to make arm signals, the competent Bulgarian authorities, while approving of the idea, have pointed out that the introduction of such means of giving warning signals would raise difficulties in the case of vehicles with acetylene lamps, whose mechanical devices would only be visible by day. On the other hand, the competent Bulgarian authorities are prepared to accept the system of the general use on the back of vehicles of a "Stop" signal indicating that the brakes have been put on.

China. The Chinese Government stated, in a letter from the Director of the Permanent Bureau of its delegation, dated January 24th, 1935, that it was considering the means by which it could give effect throughout Chinese territory to the recommendation of the Permanent Committee concerning mechanical devices projecting on both sides beyond the body of the vehicle in the case of all closed vehicles and of motor-lorries, and of the "Stop" signal at the back of vehicles. The rules concerning arm signals by the driver, indicating change of direction and an intention to slow down or to let other vehicles pass, have been incorporated in all the regulations on road traffic promulgated by the Chinese Government.

Estonia. By a letter dated April 25th, 1934, the Estonian Government stated that it would duly communicate the Permanent Committee's recommendation to the competent authorities.

Latvia. In a letter dated June 14th, 1934, the Latvian Government has stated that, on examination of the Permanent Committee's recommendation by the competent authorities, it had been found that it was already applied in practice in Latvia.

§ (e) of Article 40 of the regulations concerning the use of roads and traffic provides for the fixing in front of the automobile, on the left side, of a direction sign in the form of an arrow of a bright colour, which should be lighted at night. The arrow showing direction must be clearly visible from in front and from behind. These direction signs may be fixed on both sides at the front of the vehicle and must be lighted when they are used to show direction.

§ (h) of the same regulations lays down that the driver must, before changing direction to right or to left, turn the arrow in the direction he is going to take, whereas motor-cyclists, cyclists and persons driving other vehicles or means of transport must hold out their arm in the direction towards which they intend to proceed.

New Zealand. By a letter dated August 25th, 1934, the Prime Minister stated that the Permanent Committee's recommendation would receive full consideration by his Government.

Uruguay. By a letter dated May 25th, 1934, the Uruguayan Government has stated that it has forwarded the Permanent Committee's recommendation to the Ministry of Public Works.

ANNEX 2

(C.C.T./C.R./97.)

June 5th, 1935.

AGREEMENTS ADOPTED AT THE EUROPEAN CONFERENCE ON ROAD TRAFFIC,
HELD AT GENEVA FROM MARCH 16th to 30th, 1931.

Position as regards Signatures, Ratifications or Accessions.

1. Convention concerning the Unification of Road Signals.¹

(Geneva, March 30th, 1931.)

In force.

Ratifications
or Definitive
Accessions

Signatures or
Accessions not
yet confirmed
by Ratification

Observations

FRANCE (October 11th, 1934). (Does not assume any obligation in regard to Algeria, colonies, protectorates and mandated territories.)

ITALY (September 25th, 1933).

MONACO (January 19th, 1932).

THE NETHERLANDS (for the Kingdom in Europe Surinam and Curacao) January 16th, 1934).

POLAND (April 5th, 1934).

PORTUGAL (April 18th, 1932). (Does not include the Portuguese Colonies.)

SPAIN (July 18th, 1933).

SWITZERLAND (October 19th, 1934).

BELGIUM Subject to subsequent accession for the colonies and mandated territories.

The Belgian Government informed the Secretary-General by letter, dated July 6th, 1933, that a Royal Decree had been issued putting into force the provisions of the Convention, pending ratification by the Government.

CZECHOSLOVAKIA

By letter, dated May 24th, 1933, the Czechoslovak Government informed the Secretary-General that discussions regarding the ratification of the Convention were proceeding between the competent Ministries.

¹This Convention came into force on July 16th, 1934, in accordance with its Article II.

Ratifications
or Definitive
Accessions

Signatures or
Accessions not
yet confirmed
by Ratification

Observations

FREE CITY OF DANZIG
(through the inter-
mediary of Poland).

DENMARK

By letter, dated June 1st, 1933, the Danish Government informed the Secretary-General that it would await the decision of the neighbouring countries concerning the ratification of the Convention.

GERMANY

By letter, dated July 5th, 1933, the German Government informed the Secretary-General that a decision had not yet been taken by the competent German authorities regarding the ratification of the Convention.

HUNGARY

By letter, dated July 11th, 1934, the Hungarian Government informed the Secretary-General that the competent authorities were preparing a draft law providing for the inclusion of the Convention in the Hungarian laws.

LUXEMBURG

TURKEY

By letter, dated May 26th, 1934, the Turkish Government informed the Secretary-General that the Grand National Assembly, at its meeting on April 14th, 1934, had approved the law providing for the ratification of the Convention.

YUGOSLAVIA

By letter, dated July 9th, 1934, the Yugoslav Government informed the Secretary-General that ratification of the Convention would take place in the near future and that meanwhile the provisions were already being applied over practically the whole of Yugoslav territory.

2. Convention on the Taxation of Foreign Motor Vehicles, with Protocol-Annex.¹

(Geneva, March 30th, 1931)

In force.

| <u>Ratifications or Definitive Accessions</u> | <u>Signatures or Accessions not yet confirmed by Ratification</u> | <u>Observations</u> |
|---|---|--|
| BELGIUM (November 9th, 1932). Subject to subsequent accession for the colonies and mandated territories. | CZECHOSLOVAKIA. | By letter, dated May 24th, 1933, the Czechoslovak Government informed the Secretary-General that discussions concerning the ratification of the Convention were proceeding between the competent Ministries. |
| GREAT BRITAIN AND NORTHERN IRELAND (April 20th, 1932). Ceylon. Cyprus. Gold Coast: (a) Colony, (b) Ashanti, (c) Northern Territories. Togoland under British Mandate. Hong-Kong Jamaica Malta Windward Islands: Grenada, St. Lucia, St. Vincent, Southern Rhodesia (August 6th, 1932). | } } January 3rd, 1935. } FREE CITY OF DANZIG (through the intermediary of Poland). } TURKEY. | |
| NEWFOUNDLAND (January 9th, 1933). | | |
| BULGARIA (March 5th, 1932). | | |
| DENMARK (December 4th, 1931). | | |
| FINLAND (May 23rd, 1934). | | |
| IRISH FREE STATE (November 27th, 1933). | | |
| ITALY (September 25th, 1933). | | |
| LUXEMBURG (March 31st, 1933). | | |
| NETHERLANDS (including the Netherlands Indies, Surinam, and Curacao) (January 16th, 1934). | | |
| POLAND (June 15th, 1934). | | |
| PORTUGAL (January 23rd, 1932). Does not assume any obligation as regards its Colonies. | | |
| SPAIN (June 3rd, 1934). | | |
| SWEDEN (November 9th, 1933). | | |
| SWITZERLAND (October 19th, 1934). | | |
| YUGOSLAVIA (May 9th, 1933). | | |

¹ This Convention came into force on May 9th, 1933, in accordance with its Article 14.

3. Agreement between Customs Authorities in order to facilitate the Procedure in Case of Undischarged or Lost Triptychs.¹

(Geneva, March 28th, 1931.)

In force.

| <u>Definitive Signatures</u> | <u>Signatures ad referendum</u> | <u>Observations</u> |
|---|---------------------------------|---|
| AUSTRIA (August 4th, 1931). BELGIUM (March 28th, 1931). GREAT BRITAIN AND NORTHERN IRELAND (March 28th, 1931). IRISH FREE STATE (May 6th, 1931). BULGARIA (February 27th, 1932). CZECHOSLOVAKIA (June 28th, 1933). DENMARK (March 28th, 1931). FRANCE (April 15th, 1931). GERMANY (March 28th, 1931). GREECE (August 18th, 1931). HUNGARY (August 14th, 1931). ITALY (May 27th, 1931). LUXEMBURG (March 28th, 1931). NETHERLANDS (June 11th, 1931). NORWAY (September 27th, 1932). POLAND (September 9th, 1932). PORTUGAL (August 26th, 1931). SPAIN (July 8th, 1931). SWEDEN (February 12th, 1932). SWITZERLAND (March 28th, 1931). TURKEY (May 15th, 1932). | YUGOSLAVIA | By letter, dated July 9th, 1934, the Yugoslav Government informed the Secretary-General that it did not propose to ratify this Agreement. |

¹ This Agreement came into force on June 26th, 1931, on the ninetieth day after its signature on behalf of three Customs administrations (Article III).

ANNEX 3.

(C.C.T./P.N./5.)

May 14th, 1935.

REPORT OF THE SPECIAL COMMITTEE FOR THE
STUDY OF SIGNALS AT LEVEL CROSSINGS.

In pursuance of the resolution adopted by the Permanent Committee on Road Traffic at its eighth session (paragraph 3), the Chairman of the Advisory and Technical Committee for Communications and Transit set up a Special Committee for the study of the question of signals at level crossings, composed of:

- M. E. MELLINI, Higher Inspector of Railways, Tramways and Automobiles of the Kingdom of Italy (Chairman).
- M. Ch. H. J. DRIESSEN, Chief Engineer, Head of the Permanent Way and Works Department of the Netherlands Railways.
- M. P. C. FRANKLIN, of the Roads Department, Ministry of Transport of the United Kingdom.
- M. H. HUNZIKER, Director of the Railways Division at the Swiss Federal Department of Posts and Railways.
- M. P. A. VALSINGER, Head of the Technical Service of the Swedish Department of Roads and Bridges.
- M. C. WALCKENAER, former Inspector-General of Mines at the French Ministry of Public Work.
- M. J. L. METTERNICH, Secretary of the Special Committee.

This Special Committee met at Geneva from January 10th to 12th, 1934, and from August 22nd to 25th, 1934.¹

In the interval, extensive documentary material was collected on the basis of a questionnaire (C.L.21.1934. VIII) sent out by the Secretary-General of the League of Nations to the Governments of European States and to those of the United States of America and Canada. The replies of

¹ M. Valsinger was unable to attend the second meeting.

twenty-seven States¹ were analysed by the Secretariat of the Special Committee in a report dated August 16th, 1934 (document C.C.T./P.N./3(1)); three other States² sent subsequently replies of which due note was taken (document C.C.T./P.N./3 (1) (a).)

From the outset of its work³ the Special Committee found it desirable, at least for the present, to confine its study to the question of the international unification of the system of signals adopted for the protection and regulation of road traffic at level-crossings, without going into the question whether it would be possible and advisable in every case to use any particular system of regulation or protection.

Some reference to the present situation may now be useful.

Under the uniform system of road signals instituted by the International Convention of April 24th, 1926, and supplemented by that of March 30th, 1931, signals giving warning of railway level-crossings are triangular in form, like other danger signals. Their distinctive feature, save in exceptional cases when the triangle is hollow, is that they bear in the centre the picture of a gate or of a locomotive, according to whether it is a level-crossing with gates or a level-crossing without gates.

There was for a time some hesitation as to whether these two pictures were suitable in the case of certain level-crossings at which there are no actual gates, but which are in fact guarded. This question is now settled. The picture of the gate is to be reserved for level-crossings actually provided with gates; that of a locomotive is to be used for all other level-crossings, whether guarded or not.

These triangular advance signals are already very widely used. It is important, however, to distinguish between the de facto situation and the legal obligation in the matter. Under the International Convention, contracting States have undertaken to introduce this system of advance signals, or to

¹ Albania, Austria, Belgium, Bulgaria, Canada, Czechoslovakia, Estonia, Finland, France, Greece, Hungary, Irish Free State, Latvia, Lithuania, Monaco, Netherlands, Norway, Poland, Portugal, Roumania, Saar, Spain, Sweden, Switzerland, Turkey, United States of America, Yugoslavia.

² The United Kingdom of Great Britain and Northern Ireland, Denmark, Italy.

³ Report on the first session of the Special Committee, dated January 12th, 1934 (document C.C.T./P.N./2).

have it introduced in their territories, and to exclude all other signals for the purpose. But this undertaking applies only to the form and appearance of the signals; it prevents a different kind of signal from being used for the same purpose; it does not create any positive obligation as to their general use. In point of fact, certain States which have acceded to the Convention have not as yet taken any general measures to make the institution and upkeep of these advance signals legally compulsory on the roads in their territory.

Further, it is recognised that level-crossings without gates should have a second signal placed in the immediate vicinity of the crossing, showing the position of the crossing and preventing any risk that a driver who has not fully grasped the significance of the figure on the advance signal may confuse the crossing in question with a level-crossing with gates of which the gates are open.

There is no clause on this subject in the International Conventions. The International Railway Union has adopted for the purpose a special signal in the form of a single or double Saint Andrew's Cross, according as the line is single or double. This signal in the form of a Saint Andrew's Cross is already very commonly employed; but, so far, it has not formed the subject of any agreement between States.

The two signals just referred to must be regarded as essential; but in several countries which have had a wide experience of their use they are not regarded as adequate.

It is important to distinguish, as regards signalling, between three categories of level-crossings: those with gates (Category A); those without gates, but with automatic signals announcing the approach of trains (Category B); and, lastly, those without gates and without automatic signals (Category C).

As regards category A, since it sometimes happens that cars dash into closed gates, it seems essential that the gates should not only be painted in some distinctive fashion, but also that during the night, if they are not open, they should be provided with red lights facing the road for "Stop", or with red reflectors, or that they should be lighted by a special projector.

Further, several States have noted the utility of various supplementary devices designed to attract the attention of drivers of motor vehicles or to keep their attention as they are approaching a level-crossing. These devices are as follows:

- (a) To place reflectors on the rim of the advance signal;
- (b) To place along the road, between the advance signal and the level-crossing, a series

of posts showing the distance;

(c) To place, in the immediate vicinity of the level-crossing, palings painted in distinctive colours.

The Special Committee does not propose to require these supplementary measures to be taken at all level-crossings of Category A, whatever the density of traffic on the road, or that they should all be taken simultaneously; but it seems to it not unreasonable that, on roads on which there is heavy motor traffic, it should be made compulsory to adopt at least one of those measures.

As regards Category B, it is essential that the special signal giving warning of the approach of trains should be distinctive and such as to arrest the attention of users of the road. After having reviewed the various devices that have been used or tried, the Committee proposes that it be decided that the signal should consist both by day and by night of one or more red flashing lights. It will be accompanied by a sound signal.

On roads on which there is heavy motor traffic it is desirable also to supplement the system either by a flashing light showing white when the crossing is free or by one of the provisions (a), (b), or (c) already described.

No mention has been made above, for the level-crossings in Categories A and B, of any condition regarding the visibility of the railway-lines for users of the road; not that this question of visibility is negligible, but because, in principle, the Special Committee's proposals are intended to refer only to signals, and because, for crossings of Categories A and B, judicious signalling arrangements can and should serve adequately to supply any shortcomings in regard to visibility. But for level-crossings of Category C, the question does not present itself in the same manner. The Special Committee considers good visibility essential and places it in the forefront of the conditions to be fulfilled by level-crossings of that category. The visibility should be such that, with due allowance for the maximum speed of the trains, the driver of a vehicle approaching a railway may have time to stop before entering the crossing when a train is in sight and a driver who has entered the crossing when a train appears may have time to clear the crossing.

Further, for all level-crossings of Category C, whatever the density of traffic on the road, it is essential that the signals consisting of a triangular advance signal and the Saint Andrew's Cross signal should be supplemented either by an amber flashing light functioning throughout the hours of service, or by one of the provisions (a), (b) or (c).

This would make it possible, for the three categories of level-crossings, to contemplate a system of signalling which would be uniform in the essential provisions, while

permitting of some freedom of choice for measures of detail. This elasticity would facilitate the adoption of the system by Governments which, on these points, prefer the solutions that each of them has already selected and that it would be a costly matter to replace. As regards the main provisions, it is essential from every point of view that unity should be achieved as soon as possible.

The Special Committee's conclusions are given in Chapter I hereunder, principally for the purposes of main railway-lines. Chapter II shows briefly the principles on which the question should be settled for local railways and tramways. Lastly, various recommendations form the subject of Chapter III.

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CHAPTER I.

For purposes of the signalling and protection of level-crossings, the Committee is of opinion that level-crossings may be divided into the following three categories:

- A. Level-crossings with gates;
- B. Level-crossings without gates but with automatic signals;
- C. Level-crossings without gates and without automatic signals.

For each of these three categories the Special Committee is of opinion that the regulations to be laid down must be based on the following principles:

A. Level-Crossings with Gates.

1. Warning of level-crossings with gates must be given on the road by means of triangular advance signals bearing the picture of a gate, in conformity with the 1926 Convention. The signal-post must be painted in alternate red and white, or red and light yellow transverse stripes.

On roads with heavy motor traffic, the rim of the triangle must be provided with a number of white or yellow reflectors. Such reflectors should not be compulsory if, between the advance signal and the gate, the neighbourhood of a level-crossing is shown either by a number of posts indicating distances, placed on the right or left side of the road according as the traffic keeps to the right or left, or by placing in the immediate neighbourhood of the level-crossing, to left and right, palings painted red and white, or red and light yellow.

2. Gates must be painted red and white, or red and light yellow.

3. In order to make gates more visible by night, they must be provided either with red reflectors, or with a red light, or with a flood light illuminating the gate whenever it is not fully open.

4. In order to avoid any confusion with level-crossings coming under Categories B and C, level-crossings with gates must not be provided with signals in the form of a Saint Andrew's Cross.

5. Gates operated from a distance (whether by a railway employee or by an automatic device) must be provided with sound or sight signals giving road users warning in sufficient time that the gate is about to be closed. Road users not yet on the level-crossing must stop before reaching it; road traffic already on the level-crossing must clear it speedily. Gates must be closed slowly enough to enable such traffic to clear the crossing.

6. At all level-crossings with gates, the gates must be guarded during the whole period when train services are in operation. Should a level-crossing be transferred from Category A to Category B or C, the gates must be removed in order to avoid any misunderstanding on the part of road users.

B. Level-Crossings without Gates but with Automatic Signals.

1. Warning of level-crossings without gates but with automatic signals must be given on the road by means of an advance triangular signal bearing the picture of a locomotive, in conformity with the 1926 Convention. The posts must be painted as provided above in the case of level-crossings with gates.

2. In the immediate vicinity of the railway, a signal must be placed in the form of a single or double Saint Andrew's Cross, according as the line is single or double. The Saint Andrew's Crosses must be painted in two colours, red and white or red and light yellow; the signal-posts must be painted in alternate stripes of the same two colours.

3. The automatic signal giving warning of the approach of trains must also be placed in the immediate vicinity of railway-lines. Both by day and by night, this signal must consist of one or more flashing lights, red in colour, indicating that road traffic must stop.

4. The above-mentioned red light signal must be accompanied by a sound signal.

5. On roads with heavy motor traffic, one of the following four devices must also be used:

(a) A flashing white light appearing at periods other than those at which the red flashing light is shown;

(b) Between the triangular advance sign and the level-crossing a number of posts indicating distances on the right or left side of the road according as the traffic keeps to the right or left.

(c) In the immediate neighbourhood of level-crossings, to right and left, palings painted red and white or red and light yellow;

(d) Reflectors suitably placed on the triangular advance signal, white or yellow in colour.

6. Signals of the same kind, but operated by hand instead of being automatic, shall be regarded as equivalent to the automatic signalling of the approach of trains prescribed above.

C. Level-Crossings without Gates and without Automatic Signals.

1. In the case of level-crossings without gates and without automatic signals, it is essential that the railway-lines should be clearly visible to users of the road, with due allowance for the maximum speed of the trains, so that the driver of a vehicle approaching a railway from either side may have time to stop before entering the crossing when a train is in sight, and a driver who has entered the crossing when a train appears has time to clear the crossing.

2. Such level-crossings must be marked on the road by the advance triangular signal bearing the picture of a locomotive prescribed by the 1926 Convention.

3. In the immediate vicinity of the railway a signal must be placed in the form of a single or double Saint Andrew's Cross according as the line is single or double. The Saint Andrew's Crosses must be painted in two colours, red and white, or red and light yellow. The signal-posts must be painted in alternate stripes of the same two colours.

4. Furthermore, one of the following devices should be used:

(a) Between the triangular advance sign and the level-crossing a number of posts indicating distances on the right or left side of the road according as the traffic keeps to the right or left;

(b) In the immediate neighbourhood of level-crossings, on both the right and left side of the road, palings painted red and white or red and light yellow;

(c) A flashing orange light, working during the

whole period when the train service in the immediate neighbourhood of the level-crossing is in operation.

(d) Reflectors suitably placed on the triangular advance signal, and white or yellow in colour.

CHAPTER II.

The above regulations are intended chiefly for the main lines. In the case of local lines and tramways, the warning signals must have the same characteristics, shapes and meanings as in the case of level-crossings on the main lines. As regards their use, however, certain simplifications might be allowed in exceptional cases by the Governments of the respective countries.

In the case of sections of local railways or tramways in built-up areas, the regulations to be applied shall be left to the competent authorities of each country.

CHAPTER III.

In addition to the above proposals, the Committee would add the following recommendations:

(1) That the Governments should take all necessary steps to see that the employee responsible for operating the gates is warned of the arrival of trains in all cases and in the most effective manner possible, so as to ensure both that the gates are closed in sufficient time and that delays to traffic are reduced to a minimum;

(2) The Governments should endeavour to remedy the situation created by the existence in certain countries of side gates which may be used at will by pedestrians and which cause a large number of accidents;

(3) That the regulations governing level-crossings and the signalling of such crossings, in so far as they are not prescribed by the above provisions, should be made as uniform as possible in each country;

(4) That as many level-crossings as possible should be abolished either through replacement by underground or overhead crossings, or in certain cases by the abandonment of the use of the crossing;

(5) That additional measures of security should be taken in each country in the event of fog and all other circumstances abnormally reducing safety;

(6) That, when new lines are under consideration, the number of level-crossings should be made as few as possible, and that, where they cannot be avoided, visibility and the course of the railway and the road should be made as favourable as possible.

ANNEX 4.

(C.C.T./C.R./98)

June 12th, 1935.

RESOLUTION ADOPTED BY THE PERMANENT COMMITTEE FOR
TRANSPORT BY RAIL AT ITS EIGHTH SESSION,
HELD FROM MAY 28th TO 31st, 1935.

Signals at Level-Crossings.

The Committee,

After taking cognisance of the report of the Special Committee for the Study of Signals at Level-Crossings, dated May 14th, 1935,

Thanks the Special Committee for its very complete and detailed study of the question;

Endorses the Committee's conclusions and recommendations, with a few reservations in regard to points of detail which are reproduced as an annex (see Appendix).

Notes, in the interest of safety, the urgency of a uniform regulation of the question studied by the Committee and requests the Advisory and Technical Committee for Communications and Transit to take the necessary steps with a view to the adoption in the near future of a practical solution of the problem on as broadly international a basis as possible.

APPENDIX.

(C.C.T./C.R./98)
(Annex)

Chapter I, A, 1, Second Paragraph.

The Permanent Committee gathers that the Special Committee regards the obligation to provide the rim of the triangle with a number of reflectors as arising only where the road traffic in question circulates also by night and suggests accordingly that the idea should be embodied in the text. With this object, the words "during the night" should be added after the words "On roads with heavy motor traffic".

B, 5.

Here, again, the words "during the night" should be added after the words "On roads with heavy motor traffic".

B, 5, (a).

With a view to avoiding any misunderstanding as to the meaning of the flashing lights in the event of defects in the signal, the Committee suggests the addition of a footnote to the text in the following terms:

"All necessary precautions should be taken to prevent any confusion between the colours in the event of accident to the signal."

C, 2.

To avoid compelling the management entrusted with the installation of warning signals to incur expenditure in the case of railway-crossings with paths or other tracks where there is no motor traffic at all, it would be desirable to add the words "if used by motor traffic" after the words "Such level-crossings".

C, 4.

Similarly, it is suggested that the words "in the case of level-crossings used by motor-traffic" should be added after the word "Furthermore".

Chapter III, (1).

The Permanent Committee thinks the wording should be modified, and proposes that it should read:

"That the Governments should take all necessary steps to see that, where possible, the employee responsible for operating the gates is warned of the arrival of trains so as to"

In addition to these changes in the substance of the report, the Permanent Committee suggests the following changes of form.

Chapter I, A, 5.

" ... Road users not yet on the level-crossing must stop before reaching it. Road traffic already on the level-crossing must clear it speedily; gates must be closed slowly enough to enable such traffic to clear the crossing."

A. 6.

"... Should a level-crossing be classed from ..."

Chapter II, First paragraph.

For "in exceptional cases" read "in particular cases", so that the third sentence will read: "As regards their use, however, certain simplifications might be allowed in particular cases by the Governments of the respective countries."

Chapter III, (3).

In French text for "dans ses parties" read "dans leurs parties". No change in the English text.

AMENDMENTS TO THE REPORT OF THE SPECIAL COMMITTEE FOR THE
STUDY OF SIGNALS AT LEVEL-CROSSINGS, PROPOSED BY THE
PERMANENT COMMITTEE ON ROAD TRAFFIC.

Chapter I, A.

1. Second paragraph. In view of the observations made by the Permanent Committee on Transport by Rail, the Committee proposes that the beginning of the paragraph should be replaced by the following: "On main roads and on secondary roads with heavy motor traffic during the night, the rim of the triangle "

In order to make the system sufficiently effective, the Committee thinks it desirable to propose the addition at the end of the paragraph, after the words "and light yellow", of the words "and so arranged as to attract the notice of motor-drivers".

6. In accordance with a suggestion by the Permanent Committee on Transport by Rail, the Committee proposes that the beginning of the second sentence (French text ¹) be worded as follows: "Si un passage à niveau est transféré ..."

Chapter I, B.

5. For the reasons stated under I, A, 1, the same wording is proposed: "On main roads and on secondary roads with heavy motor traffic during the night, one of the following ..."

5, (a). The Committee agrees with the proposal of the Permanent Committee on Transport by Rail and suggests the addition after "a flashing white light" of a small note worded as follows: "All necessary precautions will have to be taken to ensure that, if the signal is not working properly, it cannot be interpreted in a manner contrary to safety".

5, (c). For the reasons given in I, A, I, the same addition "and so arranged as to attract the notice of motor-drivers" is proposed after the words "and light yellow".

Chapter I, C.

The Permanent Committee on Transport by Rail proposed the following amendments:

2. After the words "such level-crossings" add the words "if used by motor traffic".

4. After the word "furthermore" add the words "for level-crossings used by motor traffic".

The Committee considers it preferable to express the idea suggested by the Permanent Committee on Transport by Rail, with which it agrees, by inserting, at the head of the draft Convention which is to be prepared, a special article determining the field of application of the new regulations with reference to Article 1 of the 1926 Convention on motor traffic. This special article would be worded as follows:

¹ Note by the Secretariat - The amendment does not affect the English text.

"The Convention shall apply to road motor traffic in general, whatever the object and nature of the transport."

Chapter I, C.

4, (b). For the reasons stated in I, A, 1, the same addition, "and so arranged as to attract the attention of motor-drivers" is proposed after the words "and light yellow".

4, (c). The Committee, considering that the flashing light should be arranged so as to work permanently and should not be extinguished unless the operation of the railway were interrupted for a prolonged period, proposes the omission of the words "during the whole period when the train service ... is in operation", which, in its opinion, is likely to cause misunderstanding.

Chapter II, First Paragraph.

The Committee agrees with the amendment proposed by the Permanent Committee on Transport by Rail - namely, in the sixth line, the replacement of the words "in exceptional cases" by the words "in particular cases".

Chapter III.

The Committee thinks it desirable to propose a change in the order of the recommendations, so as to place at the head the particularly important recommendation relating to the abolition of level-crossings and to arrange the rest in logical order following upon this first change.

Further, the Committee proposes the following amendments:

1 (new 3). The Committee, taking into account the suggestion made by the Permanent Committee on Transport by Rail with a view to modifying the text proposed by the Special Committee, thinks that, for that purpose, it would be desirable simple to omit in the text in question the words "in all cases and in the most effective manner possible". The wording would then be as follows:

"That the Government should take all the necessary steps to see that the employee responsible for operating the gates is warned of the arrival of trains, so as to ensure both that the gates are closed in sufficient time and that delays to traffic are reduced to a minimum."

2 (new 6). No change.

3 (new 4). Replace the words "in so far as they are not prescribed by "on points of detail not prescribed".

4 (new 1). The Committee, considering that the last phrase is not sufficiently clear, proposes the following wording for this paragraph:

"That as many level-crossings as possible should be abolished, mainly through replacement by underground or overhead crossings."

5. No change.

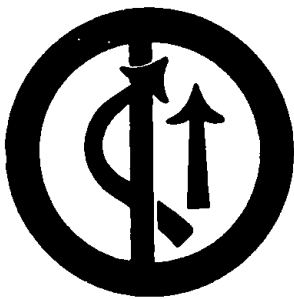
6. (new 2). The Committee thinks it desirable to propose a new wording, which seems to it more precise and explicit. The paragraph would be worded as follows:

"That, when new lines are under construction, there should, in principle, be no level-crossings, and that, if on secondary lines certain level-crossings are unavoidable, visibility and the course of the railway and the road should be made as favourable as possible."

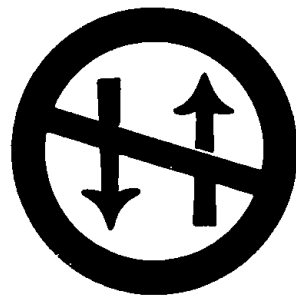
ANNEXE 6.

**SIGNAUX ADOPTÉS PAR LE COMITÉ PERMANENT
A SA NEUVIÈME SESSION.**

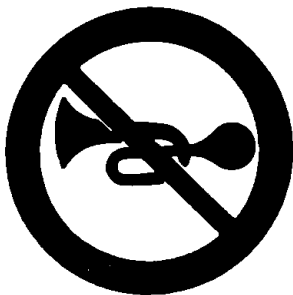
**SIGNS ADOPTED BY THE PERMANENT COMMITTEE
AT ITS NINTH SESSION.**



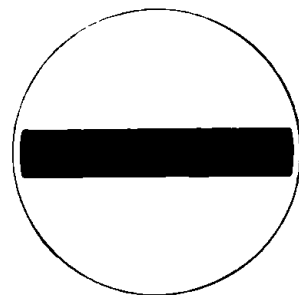
1. Interdiction de dépasser.
Overtaking prohibited.



2. Interdiction de croiser.
Passing prohibited.



3. Interdiction d'employer des
appareils avertisseurs sonores.
Use of sound signals prohibited.



S. 4 N. 5328

4. Signal de levée d'une interdiction,
apposé au verso du signal
d'interdiction.

Sign indicating the removal of
a prohibition, affixed to the
back of the prohibition sign.

June 8th, 1935.

NOTE BY THE SECRETARIAT ON THE PRESENT POSITION OF THE STUDY
OF THE QUESTION OF CLAIMS PUT FORWARD BY MOTOR-DRIVERS.

At its eighth session, the Permanent Committee proceeded to a summary examination of those questions on the Programme of Claims put forward by motor-drivers and communicated by the International Transport Workers' Federation (see document C.384.M.192.1933.VIII), which, according to the Advisory and Technical Committee's resolution, should be studied either jointly by the International Labour Office and the Permanent Committee, or exclusively by the Permanent Committee.

A. QUESTIONS TO BE STUDIED JOINTLY BY THE INTERNATIONAL
LABOUR OFFICE AND THE PERMANENT COMMITTEE.

The Committee considered that a certain number of these questions should, for the present, be left for settlement by the national regulations of the various countries.

I. Questions which in the Committee's opinion seem to require
to be left for settlement by national regulations.

4. ¹ Prohibition of motor-driven vehicles by combustion engines if not provided with self-starters.

7. Establishment of uniform regulations for the training and medical, theoretical and practical examination of candidates as drivers.

8. Public institutions (the State, provinces, communes or public welfare organisations) shall alone be authorised to establish and conduct motor-training schools. All such schools must be under the supervision of the authorities. The boards entrusted with the supervision of schools shall include, in addition to representatives of the competent authorities, associations of motor-car owners and owner-drivers, representatives also of professional organisations of motor-car drivers.

9. Persons entrusted with practical instruction in driving schools must have followed for at least five years the occupation of motor-driving and must pass an examination as to their teaching capacities.

10. Persons not possessing the teaching qualifications mentioned in paragraph 9 and not officially authorised to give lessons in driving schools shall be forbidden, under pain of severe penalties, to teach driving.

12. Representatives of professional drivers' organisations should be admitted as examiners at the practical and theoretical tests to be passed by candidates.

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The numbers correspond to those of the Programme of Claims put forward by motor drivers.

16. Exemption of the professional driver from joint responsibility arising from the laws regarding compulsory insurance and liability in case of accident.

17. Formation in all countries, at the seat of the central administration, of advisory committees on which professional drivers' organisations shall be suitably represented.

20. Establishment of uniform regulations regarding apprenticeship; minimum uniform stipulations respecting the practical, theoretical and medical test for driver-candidates.

29. Drivers' seats on motor-lorries and on trailers should be padded, fitted with springs and protected against wind and weather.

In conformity with the resolution of the Permanent Committee, its opinion on the questions enumerated above has been communicated to the International Labour Office. The Office has forwarded to the Secretariat its observations thereon (see Appendix).

II. Questions regarding which the Committee arrived at a conclusion.

11. All candidates wishing to obtain a driving-licence must pass a theoretical and practical examination. They must produce a certificate confirming that they have successfully passed through a motor-driving school.

The Permanent Committee considered this question highly important from the point of view of international safety. It considered that Article 6 of the International Convention on Motor Transport of 1926 implied the obligation for the Government to make the issue of the international permit conditional upon the passing of the driving-test and that it would be desirable to draw the attention of the Governments parties to the Convention to the importance of a strict application of the provisions of this Convention. The Advisory and Technical Committee did not see its way to give effect to this recommendation of the Permanent Committee, as a recommendation to apply the 1926 Convention more strictly seemed to imply that the Government had not done so up to the present, a fact which had not been established. Moreover, it may be observed from the enquiry undertaken by the Secretariat at the Committee's request into the conditions of issue and withdrawal of driving-licences (see below), that almost all the countries make candidates for driving-licences pass a theoretical and practical examination.

13. After having successfully passed the practical and theoretical tests, candidates shall be entitled to a driving-licence. Licences, of different types for amateur and professional drivers, shall be issued for the following categories: (a) motor-cycles, (b) light cars, (c) all other motor vehicles.

The Committee was of opinion that there was no reason to change the principles contained in the 1926 Convention.

30. The reliable working of all motor vehicles should be verified every year, as often as their age and degree of wear require it, by an officially authorised technical institution or by qualified technical officials.

The Committee, without desiring to recommend such examination for all categories of vehicles or to insist on its being carried out at regular intervals, was of opinion that it was desirable from time to time for motor vehicles used for regular passenger or goods services.

The International Labour Office has forwarded an observation on this question (see Appendix).

III. Questions which the Committee decided to examine either immediately or in connection with the revision of the 1926 Convention on Motor Traffic.

5. All candidates wishing to obtain a licence to drive a mechanically propelled vehicle must submit themselves to medical inspection as a test of their physical qualifications. This inspection should mainly relate to sight, hearing, state of the heart and general condition. In the course of the general examination, it should be ascertained whether the candidate suffers from any disease or physical defect likely to make a motor vehicle driven by him a source of danger to the public.

The Committee instructed the Secretariat to collect information with regard to the legislation in force in the various countries. The results of this enquiry are contained in document C.C.T./C.R./88.

6. Persons under 21 years of age may not in any circumstances be given a driving-licence for a mechanically propelled vehicle of any kind whatever.

The Committee noted this question with a view to considering it later, but was of opinion that it could only be settled by means of a revision of the 1926 Convention.

14. At the seat of all authorities entitled to issue, on the recommendation of the examining board, driving-licences, or to withdraw such licences, a commission shall be formed, which shall include also representatives of the professional drivers' trade union, and shall have the sole right to decide whether the withdrawal of a licence is warranted.

The Committee instructed the Secretariat to collect information with regard to the manner in which this question was regulated in various countries, particularly as regards the withdrawal of drivers' licences and the driver's right of appeal. The results of this enquiry are contained in document C.C.T./C.R./93.

18. Governments to draw up statistics of traffic accidents and their probable causes, classified as motor accidents, tramway accidents and other traffic accidents (horse-driven vehicles and bicycles).

The Permanent Committee had recommended the compilation of such statistics. The Advisory and Technical Committee considered that, before sending Governments such a recommendation, it was desirable:

- (1) To collect all necessary information on existing statistics;
- (2) To examine on what basis these statistics were established.

The Advisory and Technical Committee thought that it was only after having collected such information that it would be able to consider whether it was possible and desirable to propose the unification of these statistics on a common basis, since the compilation by Governments of statistics which could not be compared with one another could not be regarded as presenting any international value. The Advisory and Technical Committee therefore instructed the Secretariat to collect, under the direction of the Chairman of the Committee on Road Traffic, the above-mentioned information on existing statistics and on the methods employed in compiling them in the different countries. The results of this enquiry are embodied in document C.C.T./C.R./92. The International Labour Office has forwarded an observation on this question (see Appendix).

28. If the brake of a trailer cannot be worked from the driver's seat of the motor vehicle, the trailer should carry a brakesman, irrespective of the total weight. The driver of the motor vehicle and the brakesman on the trailer must be able to communicate with one another.

The Committee thought that this question was a very important one and should be examined with a view to a revision of the 1926 Convention. The International Labour Office has forwarded an observation on this point (see Appendix).

B. QUESTIONS FALLING EXCLUSIVELY WITHIN THE COMPETENCE OF THE PERMANENT COMMITTEE.

I. Questions which, in the opinion of the Committee, seem to require to be left for settlement by national regulations.

3. Legal obligation for all motor-owners to take out an insurance policy for both the driver and the vehicle.

25. Improvement of roads in all countries by modern paving.

II. Question which might be considered in connection with the revision of the 1926 Convention on Motor Traffic.

24. Institution of international rules on the right of way at bifurcations and cross-roads.

III. Questions regarding which the Committee arrived at a conclusion.

15. Issue in all countries of international driving certificates valid for all countries which have acceded to the International Convention on Motor Traffic.

21. Issue in all countries of international driving certificates for professional drivers valid for all countries which have acceded to the International Convention on Motor Traffic.

The Committee did not think that it was possible to allow countries which had not acceded to the 1926 Convention to issue driving certificates valid in the countries which had acceded to it.

IV. Questions which have already been settled by Conventions or which have been the subject of recommendations by the Committee.

22. Conclusion of an International Convention on road traffic generally (motor vehicles, horse-drawn vehicles, cyclists, pedestrians).

This question was settled by the Convention of 1926 on Road Traffic.

23. Adoption in all Continental countries of uniform regulations stipulating the right-hand rule of the road.

This question, the importance of which the Committee recognised, was the subject of a recommendation of the Committee communicated to Governments in 1927.

26. Compulsory enforcement of the provisions regarding the placing of road signs and pictorial signs (without written directions, so that chauffeurs of all countries may be aware of the danger) at level-crossings and dangerous points on the roads.

The Committee considered that this question had been settled by the Convention of 1926 on Road Traffic and the Convention of 1931 on the Unification of Road Signals.

27. Fitting of motor vehicles with mechanical signalling devices which can be illuminated at night.

This question was the subject of a recommendation adopted by the Committee at its eighth session and communicated to the Council and States Members of the League (see document C.671.M.321.1933.VIII.).

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APPENDIX

Extract from a Letter, dated June 6th, 1935, from the
Director of the International Labour Office to the
Secretary-General of the League of Nations, forwarding
Observations of the Office on Certain Decisions taken
by the Permanent Committee on Road Traffic at its
Eighth Session.

I have the honour to forward to you herewith, in view of the ninth session of the Committee which opens on June 17th, certain observations by the competent services of the Office.

With reference to Point 18 of the claims put forward by motor-drivers (Statistics of Road Accidents), and in connection with the report of the Secretariat on this question, the Safety Service states that it also possesses information which it would be willing to put at the disposal of those interested.

On Point 28 (Brakes on Trailers) the Safety Service agrees with the Committee and emphasises the necessity for a revision of the 1926 Convention.

As regards Point 30, the Service is of opinion that a periodical revision (every two years) should be provided for, not only for regular passenger services, but also for all lorries of which the full charge exceeds one ton, or to which a trailer is attached.

Regarding Points 8, 9, 10 and 20, which the Committee considered should be left for settlement by national regulations in the different countries, the Labour Conditions Section would be willing, if so desired, to prepare a report on the professional training of motor-drivers.

ANNEX 8.

(C.C.T./C.R./100.)

June 15th, 1935.

NOTE BY THE SECRETARY OF THE PERMANENT COMMITTEE ON ROAD TRAFFIC
ON THE INTERNATIONAL TECHNICAL CONFERENCE FOR FIRST AID ON
ROADS, HELD AT BUDAPEST FROM MAY 20th to 24th, 1935.

This Conference was convened by the Hungarian Red Cross and organised in collaboration with the International Red Cross Committee, the League of Red Cross Societies, the Permanent International Committee for First Aid on Roads, the Central Council of International Touring, the International Society of Recognised Automobile Clubs and the International Tourist Alliance.

The following countries were represented: Argentine, Austria, Belgium, United Kingdom, Bulgaria, Czechoslovakia, Denmark, Finland, France, Germany, Hungary, Italy, Latvia, Netherlands, Spain, Sweden, Switzerland and Yugoslavia. The institutions mentioned above as having collaborated in organising the Conference were also represented, together with the International Association of Medical Automobile Clubs. The Secretary of the Permanent Committee on Road Traffic represented the Committee and made two communications to the Conference, one relating to the work of the Transit Organisation on signalling and the other to the position of the examination of the question of statistics of traffic accidents and their causes.

The Conference adopted the following recommendation with regard to the compilation of official statistics of traffic accidents:

"Recommendation submitted by the President.

"The International Technical Conference for First Aid on Roads, held at Budapest from May 20th to 24th, 1935,

"Having taken note of the resolution adopted by the Central Council of International Touring at its General Assembly at Cracow,

"Warmly supports the recommendation made in this resolution that the methods of compiling official statistics of traffic accidents in all countries should be standardised:

"Learns with satisfaction that this question will be studied by a committee held under the auspices of the Communications and Transit Section of the League of Nations in co-operation with the various international organisations interested in statistics of traffic accidents."

ANNEX 9.

(C.C.T./CR./102.)

June 20th, 1935.

QUESTIONNAIRE RELATING TO MECHANICAL LIGHT SIGNALS.

1. Has any system of mechanical light signals for regulating traffic at cross-roads, particularly in towns, been adopted in your country, either as a regular measure or by way of experiment? Does it come under the local authorities only, or is it under the orders and control of the central authorities in your country?

2. What systems of signalling are employed, and in what cases are they severally employed?

3. Is the apparatus worked by hand or automatically? In the latter case, in what does the automatic nature of the system consist?

4. Are the systems of signalling based on the principle of signals of one, two or three colours?

5. (a) What are the colours employed? (b) What is the exact meaning of each of them? (c) In what order do they appear? (d) Do lights of two different colours appear simultaneously in certain cases and, if so, what do they signify? (e) How are the lights superposed or grouped, and in what order?

6. Are fixed lights or flashing lights employed? In the latter case, how frequently do the flashes occur?

7. Is the appearance of each of the lights of the signal that of a light which does not change as regards position or form, or is there a system producing the effect of a moving light or some light apparatus which changes in order to give gradual warning of the disappearance of the light?

8. Are the signals in question intended only for the use of vehicles? Is it provided that pedestrians shall observe those signals and take account of them, or is there a special system of signals for pedestrians and, if so, what is that system? In the latter case, does each colour bear the same significance in the signals intended for pedestrians as in those intended for vehicles?

9. How long have the various systems in use in your country been employed? Have any others been employed which have subsequently been abandoned? As regards those at present employed, are there any that it is proposed to abandon and, if so, for what reasons?

10. Is the general adoption of one of those systems already proceeding or contemplated, with a tendency towards a more or less general standardisation?

11. Is preference given in your country to signals suspended in the middle of the road, or to those placed off the road at the corners of cross-roads?

12. Do you consider that mechanical light signals are becoming necessary owing to the increase of traffic? In what cases and to what extent has the system been attended by any drawbacks?

13. Is the signalling system employed by the traffic police (Table IV in document C.671.M.321.1933.VIII: "Road Signalling") adequate to meet present-day needs? Does it work satisfactorily in conjunction with the systems employed for light signalling? What is the present position in your country as regards this question?

ANNEX 10.

REPORT
PREPARED BY THE INTERNATIONAL HEADQUARTERS OF THE INTER-
NATIONAL CHAMBER OF COMMERCE
ON
BARRIERS TO INTERNATIONAL COMMERCIAL MOTOR TRANSPORT,
FOR EXAMINATION BY THE CONGRESS OF THE CHAMBER
ON JUNE 25th, 1935.

One of the questions which will be dealt with at the meeting of the Paris Congress of the International Chamber of Commerce set aside for the discussion of the "Progress of Road Transport" is that of barriers to international commercial motor transport. At its meeting on March 11th, 1935, the International Chamber's Highway Transport Committee therefore requested headquarters to submit a report on this question as a basis of discussion.

The present report was accordingly prepared. It is not intended as a statement of the point of view of the International Chamber of Commerce, but merely as a source of information for the members of the Congress.

What is the present international regime governing commercial motor transport and what are the obstacles at present standing in the way of such transport?

What efforts have been made to draw up an international convention? Why had they to be provisionally suspended and what results were achieved?

These are some of the questions which must be answered before any final considered opinion can be expressed concerning the methods of future action and its chances of success.

I. PRESENT REGIME OF INTERNATIONAL COMMERCIAL MOTOR TRANSPORT.

It is important to note at the outset that the present report is exclusively concerned with commercial motor transport, -in other words, not with the transport of persons free of charge. Private motor-cars have already a certain measure of freedom resulting from a tacit agreement allowing them to circulate freely provided that their papers (Customs, police, taxation) are in order.

In the case of commercial motor transport, on the other hand, the only definition of their obligations on entering and leaving foreign countries is contained in the International Convention on Motor Traffic, signed in Paris on April 24th, 1926, and even that Convention does not deal with them specifically. Moreover, it only lays down general principles. It is limited to determining, from the technical point of view, the conditions (international certificates for automobiles, international driving licences) to be fulfilled by vehicles and their drivers before being admitted without further examination into the participating countries.

As far as transit traffic is concerned, the Barcelona Convention, which established the principle of freedom of transit, does not apply to road transport.

Barriers. Thus, commercial motor transport has no international status, and the passage of a commercial motor vehicle from one country to another is subject to the diversity and often complexity of national legislation from the threefold standpoint of Customs, fiscal and administrative formalities. These formalities make it difficult, and sometimes even impossible, for commercial motor vehicles to carry internationally. It should be added that, generally speaking, the rules for the admission of passenger vehicles are less strict than for goods vehicles.

This position is all the more illogical in that freedom of transport is an admitted principle for all other means of transport. The latter are governed by special international conventions (Convention on the International Regime of Maritime Ports, Convention on the Regime of Railways, Berne Conventions on Railway Transport, Convention on the Regime of Navigable Waterways of International Concern, Convention on the Regulation of Aerial Navigation). Consequently, both in law and in fact, freedom of transport to enter and leave, without any obligation to tranship at frontiers, exists for all other means of transport (with the exception of a few inland waterways). The absence of any international status for commercial motor transport is a particularly regrettable exception to the general rule, since the constant growth of motor transport is giving it an increasingly important place in the transport system.

II. PREPARATORY WORK FOR A CONVENTION ON THE INTERNATIONAL REGIME OF COMMERCIAL MOTOR TRANSPORT.

The need for an international Convention soon made itself felt. At quite an early date, proposals reached the Communications and Transit Committee of the League of Nations from every side concerning the measures that should be taken to meet the requirements of trade and industry in the field of motor transport. The work begun in 1928 was continued by the Permanent Committee on Road Traffic of the League of Nations and led to the preparation of a draft Convention. This draft Convention was then submitted to the European Road Traffic Conference, which met in Geneva from March 16th to 30th, 1931.

Furthermore, various international organisations took a keen interest in the question and actively participated in the work of the League of Nations; among others, the International Chamber of Commerce, the International Association of Recognized Automobile Clubs, the International Tourist Association and the International Federation of Commercial Motor Transport.

The International Chamber of Commerce thoroughly studied the draft Convention established by the League and consulted in this connection its National Committees. It submitted to the European Road Traffic Conference a substantial report

I See report by M. Damiens (document No.5615).

suggesting certain amendments to the draft Convention and containing a practical proposal for the simplification of the documents to be shown by motor vehicles at frontiers. The International Chamber was also represented at the European Conference, and its delegation took an active part in the discussions.

Results achieved internationally. Unfortunately, the European Road Traffic Conference was unable to adopt the text of a Convention. The following resolution was adopted:

"The European Conference on Road Traffic,

"Having carefully examined the draft Convention of the International Regime of Commercial Motor Transport and having deliberated thereon;

"Observing that the discussions in the First Commission of the Conference have brought to light a number of legal problems, particularly in regard to what public transport services may properly be made the subject of international regulation, and also in regard to the question of freedom of transit;

"Believing that these problems cannot be elucidated without further investigation based on a comparative examination of the domestic law of the different countries represented at the Conference;

"Being of opinion that any Convention that might be concluded before there has been time to carry out such investigation and at a time when the laws of the various countries are in process of evolution could cover only a few isolated points and must neglect the fundamental principles governing the subject;

"That such a Convention would have the grave disadvantage of being less progressive than the increasingly liberal practice which is tending to become established in many countries;

"That, so far from encouraging progress in the municipal law of countries, it would be more likely to retard such progress; and,

"That this disadvantage would be equally serious as regards the progress of the international law of communications, which also shows a definite tendency towards increasing liberality:

"Adopts the following resolution:

"The Conference decides to suspend its work on the Convention on the International Regime of Commercial Motor Transport;

"It recommends that the Communications and Transit Organisation, when reporting to the Council of the League of Nations on the results of proceedings of the Conference

should lay emphasis on the expediency of reserving to a future conference the task of providing the international solutions to be adopted after the additional investigations which have been found to be indispensable have been carried out by that Organisation;

"It also recommends that, pending the conclusion of an international convention, separate agreements should be made between States, and that, in drawing up such agreements, the utmost possible regard should be paid, in matters connected with the Customs treatment and taxation of commercial vehicles, to the drafts prepared by the Sub-Committees of the Conference with reference to vehicles engaged in the international transport of passengers and their baggage (Articles 4 and 7 of the draft Convention)."

That does not mean, however, that the work done at Geneva was valueless. The delegates to the Conference were able to reach agreement on certain very important principles, especially concerning the equivalence of taxes (a principle previously urged by Mr. Charles Blum, member of the International Chamber of Commerce's delegation at the seventh meeting of the Permanent Committee on Road Traffic of the League of Nations), granting of temporary Customs franchise to commercial motor vehicles, and the nature of the deposits to be made for the vehicles.

Impediments to the conclusion of an international Convention. There are many reasons for this comparative lack of success. They are set out in the resolution of the Conference quoted above. Among the obstacles standing in the way of an agreement should also be mentioned the reserved attitude of certain chambers of commerce which were afraid of competition from foreign commercial motor transport in the frontier regions. Another difficulty lay in the fact that, in 1931, the problem of road and rail co-ordination was already becoming acute, but was far still from being solved. The Governments did not yet know what measures they would be obliged to take to regulate motor competition and wished to remain free as far as possible to adopt whatever solution seemed to them the best. They thought that, by establishing a regime applicable to international traffic, they would be committing themselves to a specific regime for national traffic.

III. EXISTING POSSIBILITIES OF ARRIVING AT A CONVENTION ON THE INTERNATIONAL REGIME OF COMMERCIAL MOTOR TRANSPORT.

The need for an international Convention is still greater to-day than it was in 1931. Various countries have constructed or are constructing special motor-roads. The creation of international road systems is being studied. It would therefore seem to be a natural corollary to facilitate international motor transport by defining the regime under which it should operate.

However, the question arises as to whether the same obstacles still exist as rendered the adoption of an international Convention impossible three years ago.

Since 1931, the competent bodies of the League of Nations have been asked to decide on several occasions whether it would be advisable to start work again on an international Convention. At its eighth meeting, held in Geneva from May 29th to June 1st, 1933, the Permanent Committee on Road Traffic, after a discussion in which a representative of the International Chamber of Commerce took part, decided, in its turn, "for the moment not to continue an investigation of this question, but to keep it on its agenda with a view to a detailed enquiry at a moment which the Committee may consider more favourable for such an enquiry".

The question was raised again by M. Ingwersen, the International Chamber of Commerce's delegate, at the eighteenth meeting of the Consultative and Technical Committee on Communications and Transit of the League. In his reply, the Secretary-General of the Commission said that the time was not yet ripe for taking up again the question of commercial motor transport from an international point of view. The British delegate endorsed the Secretary-General's point of view, and pointed out that competition between the various means of transport played an important rôle and hampered the Governments in reaching a conclusion on this question. The Committee therefore confirmed the decision of the Permanent Committee on Road Traffic in favour of suspending work on this question for the time being.

Is this attitude still justifiable at the present time? Is it necessary to wait until the road and rail problem has been solved satisfactorily in all, or at least in the principal countries before starting work again? The answer would seem to be in the negative.

In the first place, although some progress has been made in the road and rail field, the authorities seem to be agreed that no final solution will be found for a long time to come. A long period of adjustment is to be expected. In a personal note submitted to the last meeting of the Special Committee on Road and Rail of the International Chamber of Commerce, Sir H. Osborne Mance, the Rapporteur-General of the Committee, gave the following opinion:

"There is still much to be done by Governments, the railways and by road transport before transport co-ordination can be considered to have reached a comparatively stabilised situation in the new conditions."

Thus, to make the conclusion of a Convention on the international regime of commercial motor transport depend upon the adoption by the various countries of a system of land transport co-ordination would surely postpone indefinitely a measure which appears to be increasingly necessary.

Moreover, the laws and regulations adopted since 1933 by various countries in respect of transport organisation, as well as the experience acquired by them in recent years, gives even now a general idea of the main lines along which such transport co-ordination would be effected. It seems likely, too, that, in certain countries - for instance, Germany - transport co-ordination will take place along more liberal lines than was thought in 1933. These

various factors should make it easier to-day, and still more in the near future, to establish a convention on the international regime of commercial motor transport.

Another point in favour of international action is the fact that several countries have already signed bilateral agreements concerning commercial motor transport in accordance with the recommendations of the European Road Traffic Conference of 1931. Here again, experience must have been acquired which would be of the greatest value in preparing a multilateral convention.

It would seem too that insufficient attention has been given to plans of a practical character, such as that submitted to the I.C.C. by Mr. Brégy (Doc.No.4501) in 1931, which could contribute to a concrete solution of the problem while at the same time calming certain legitimate fears.

Consequently, work should, and could with greater chances of success, be started again with a view to carrying a further step forward the efforts made to arrive at an international convention on the regime of commercial motor transport.

The following recommendations might therefore be put forward:

- that the I.C.C. continue to study actively the possibilities of arriving at a convention on the international regime of commercial motor transport and the conditions which such a convention should establish;

- that the I.C.C. should if necessary set up a special sub-Committee for that purpose;

- that it collaborate in this field with the principal international organizations concerned;

- that the competent government organizations take the question up once again.

[Communicated to the Assembly, the
Council and the Members of the League.]

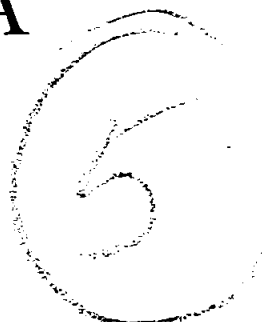
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Geneva, August 15th, 1935.

LEAGUE OF NATIONS

ORGANISATION FOR COMMUNICATIONS AND TRANSIT

POLLUTION OF THE SEA
BY OIL



Chapter I. — ACTION TAKEN BY THE COMPETENT ORGANS OF
THE LEAGUE OF NATIONS.

Chapter II. — SUMMARY OF THE REPLIES TO THE QUESTION-
NAIRE.

Series of League of Nations Publications

VIII. TRANSIT
1935. VIII. 5.

CHAPTER I.

ACTION TAKEN BY THE COMPETENT ORGANS OF THE LEAGUE.

On July 19th, 1934, the United Kingdom Government addressed the following letter¹ to the Secretary-General of the League of Nations on the subject of the pollution of the sea by oil:

" I am directed by Secretary Sir John Simon to inform you that representations have recently been made to His Majesty's Government in the United Kingdom that the pollution of the coasts of the United Kingdom owing to the discharge of oil and oily water at sea is increasing and that there is evidence of the greater destruction of sea-birds in circumstances involving much suffering, as well as of damage to inshore fisheries and to the amenities of seaside resorts and the beaches generally in this country. Public opinion has been roused on the subject and His Majesty's Government in the United Kingdom have been pressed, as the matter is one of international concern and cannot be solved without the co-operation of the principal maritime nations, to bring the question before the League of Nations.

" 2. His Majesty's Government are, of course, aware of the proceedings at the International Conference held on this subject at Washington at the invitation of the Government of the United States of America in June 1926, and of the valuable discussions which then took place. That Conference reached agreement on a draft Convention under which the Governments, who might become parties to it, might establish areas adjacent to their coasts within which the discharge from vessels of oil and oily mixtures should be prohibited; in the case of coasts bordering the open sea, such areas were to extend not more than 50 nautical miles from the coast, but in exceptional cases they might be extended to a width not exceeding 150 nautical miles. Unfortunately, a convention on the lines recommended has never been adopted.

" 3. It has been represented to His Majesty's Government that much evidence has accumulated in the last eight years which, if placed before the countries chiefly concerned, might alter the views formed at Washington and which, in any case, deserves further international consideration. It has been urged that, apart from the inherent difficulty of detecting discharge from ships within the prohibited areas recommended by the Washington Conference, those areas are in themselves too narrow, in view of the fact that a small amount of oil will cover a great area of sea and, with certain conditions of wind and current, will drift to the coasts from distances far more than 50 or 150 miles.

" 4. His Majesty's Government, after careful consideration of the representations which have been made to them, have come to the conclusion that it is their duty to bring the question before the League of Nations with the least possible delay and have so informed the principal maritime powers. I am, therefore, to request that this matter may be referred for preliminary examination to the Communications and Transit Organisation of the League. It is understood that, after an initial enquiry, the Communications and Transit Organisation would summon experts from the various countries concerned, in order to carry out a more detailed examination of the problem. If, as a result of such examination, the Organisation should recommend the conclusion of a convention on this matter, it would no doubt submit to the Council of the League a memorandum explaining the objects which it is desired to achieve by the conclusion of a convention, and the benefits which would result therefrom. The subsequent procedure would then, presumably, be that laid down in the resolution adopted by the Assembly on September 25th, 1931, in regard to the procedure to be adopted in the case of general conventions to be negotiated under the auspices of the League of Nations.

(Signed) Ralph STEVENSON."

At the meeting of the Second Committee of the fifteenth Assembly on September 12th, 1934, at which the work of the Communications and Transit Organisation was discussed, the representative of the United Kingdom explained that his Government attached great importance to this question from an international point of view. He reminded the Committee that an International Conference had been held at Washington in 1926 to consider the subject and that a draft Convention had then been prepared, which, unfortunately, had never been made effective. He added that His Majesty's Government were prepared to fall in with any international scheme calculated to lessen the damage and suffering arising from this evil. The representatives of Italy, Canada, India, the Argentine Republic and Cuba expressed their agreement with the views of the United Kingdom representative, and stated that their Governments would support any efforts which might be made to reach an international agreement on this matter.

The report of the Second Committee of the Assembly provided for an initial enquiry to be undertaken by the Communications and Transit Organisation, on the understanding that, after this enquiry, the Organisation would convene experts belonging to various countries to study the problem more closely; if, as the outcome of this examination, the Organisation recommended the conclusion of a convention on the subject, it would doubtless submit a memorandum to the Council, setting forth the object of such a convention and the advantages which might ensue.

The Chairman of the Advisory and Technical Committee for Communications and Transit invited experts from certain countries to study the question, and the following Committee met at Geneva from November 19th to 23rd, 1934: Mr. C. H. GRIMSHAW (United Kingdom), of the Mercantile Marine Department of the Board of Trade (*Chairman*); Colonel S. GIACCHETTI (Italy), Port Commandant, Chief of Division in the General Direction of Mercantile Marine of the Ministry of Communications; Commander Chester H. G. KEPPLER (United States of America), Naval Attaché to the United States Embassy in Berlin; Commander F. V. H. LAUB (Denmark), Director of the Port of Copenhagen; M. P. H. WATIER (France), Councillor of State, Director of Navigable Waterways and Maritime Ports in the Ministry of Public Works, represented by M. C. LEMOINE, Chief Engineer of Bridges and Highways, Assistant Director of Navigable Waterways and Maritime Ports; M. M. YOKOYAMA (Japan), Consul-General in Geneva, represented by M. NISHIMURA, Consul in Geneva, and M. Y. ISHIKAWA (Japan), Major of Engineers.

On December 8th, 1934, the Secretary-General communicated to the Council that in pursuance of the work of the Committee of Experts, the Communications and Transit Organisation recommended the conclusion of an international convention on the subject, and submitted to the Council a memorandum adopted by the Committee, explaining the object of such a convention and the advantages to be derived therefrom.

In this memorandum, the Organisation said, in part, that it had had the advantage of the study of the question by certain experts. The experts were agreed that the damage caused by oil pollution related to the destruction of sea-birds, whose wings became saturated with oil, and who were consequently unable to swim, fly or dive, and often died a painful and lingering death from starvation; to the destruction of fish, particularly shellfish, and of the marine grasses which form the staple food of fish and birds. They were further agreed that the pollution of beaches resulted in damage to bathers, the depreciation in value of seaside resorts generally, and constituted a menace to public health; and, finally, that the accumulation of oil which, in many cases, drifted into harbours from outside territorial waters created a danger of fire.

“ These evils occur to a greater or less extent in various countries. In the United Kingdom and in the United States they are all still present to a serious extent, though conditions have improved on certain parts of the coasts of those countries in recent years. In Japan, though pollution is not very serious at the present time, oil discharged or escaping from vessels along the coasts has caused damage to fisheries, particularly shell fisheries, and has also jeopardised the cultivation of edible seaweed, which forms one of the most important industries on portions of the coast. In Italy, the damage has not been very serious; it has principally affected the sea-beaches, and there is also the danger of fire in certain harbours from the presence of oil, washed in from beyond territorial limits. In France the chief damage has been to fisheries and to seaside resorts and bathing-stations. In Denmark, there have been only a few cases of pollution, but it is feared that, as oil-burning and oil-carrying vessels increase in numbers, the damage may become more serious.”

The memorandum stated that the object in view is to provide, by international agreement, some means whereby oil-burning and oil-carrying ships may be prevented from polluting, through the discharge of oil and oily mixtures on the high seas, the coasts to which the matter thus discharged is liable to drift, after travelling, in certain conditions of wind and tide, considerable distances. It is not possible to provide a remedy which will be completely effective, since some of the pollution is due to the stranding or collision of vessels having oil on board, or to the pouring of oil on to the seas by vessels during storms and while assisting other vessels in distress. No measures that could be taken could obviate these particular causes of pollution. It is, however, possible to guard against pollution caused by the voluntary discharge of oil and oily mixtures by ships outside territorial limits, but this can only be achieved through the co-operation of the chief maritime countries of the world. It is obvious that if ships belonging to some of the chief maritime nations were left free to discharge oil and oily matter without restriction, the co-operation of the other maritime nations in an international agreement would largely be frustrated.

The Committee of Experts were agreed that some international measures should be devised so as to limit the evil as much as possible, and the Communications and Transit Organisation therefore recommended that efforts should be made to attain the conclusion of an international convention on the subject. The advantages which might ensue if such a convention were concluded are, it was submitted, obvious, in that the damage which is now being caused to property in harbours, to the interests of seaside resorts, to bird life, and to fisheries, would very largely if not entirely be obviated.

On January 11th, 1935, the Council (eighty-fourth session) examined a report on the question of the pollution of the sea by oil which had been communicated to it by the representative of the Union of Soviet Socialist Republics. M. Litvinoff remarked, in part, that:

“ In accordance with the suggestions contained in the letter from the United Kingdom Government by whom the question was referred to the Communications and Transit Organisation, the procedure hitherto followed by that Organisation in the examination of this problem, has been that provided in the resolutions adopted by the Assembly in 1930 with regard to conventions to be negotiated under the auspices of the League of Nations. According to the procedure for which these resolutions provide, if the Council approves in principle a proposal for the drafting of a convention, the Organisation of the League of Nations concerned is authorised to prepare a first draft for communication to Governments. The draft may be accompanied by a questionnaire.

“ The Council will, doubt, consider that the proposals of the Communications and Transit Organisation should be approved in principle, and that the latter should be authorised to take all requisite steps for the preparation of such a draft convention. It will be for the Organisation to decide whether it considers it desirable to send out a special questionnaire either at the same time or earlier.

“ The Council will, no doubt, feel that, in view of the experience acquired by the Communications and Transit Organisation in the preparation of international conventions, the Organisation should be given complete freedom in the choice of measures to be taken with a view to the preparation of the convention at present proposed. The Organisation will, no doubt, in due course report to the Council and Assembly on the action taken by it and on the result of its consultation of the different Governments concerned. Should it appear from the consultation of the different Governments that a conference would have a good chance of succeeding, the Organisation may subsequently propose to the Council to convene such a conference with a view to the conclusion of a convention.”

Sir John Simon (United Kingdom) said that, as representative of the Government which had raised this question, he was glad to note the progress made by the Communications and Transit Organisation in the matter. The pollution of the sea caused useless and cruel suffering to birds. He hoped that the maritime countries concerned would assist the Communications and Transit Organisation in the preliminary investigations necessary, so that a further report might be submitted to the next session of the Assembly.

The Council approved the conclusions of the Rapporteur and adopted the following resolution which he had proposed:

“ The Council,

“ Authorises the Communications and Transit Organisation to make all necessary preparatory studies with a view to facilitating the future conclusion of an international convention in regard to the pollution of the sea by oil.”

With a view to giving effect to the resolution adopted by the Council and in accordance with the request of the Chairman of the Advisory and Technical Committee for Communications and Transit, the Secretary-General addressed on January 23rd, 1935, a Circular Letter to the following countries with the subjoined questionnaire:

| | | |
|--|------------------|--|
| Afghanistan | Egypt | Mexico |
| Union of South Africa | Ecuador | Monaco |
| Albania | Spain | Nicaragua |
| Germany | Estonia | Norway |
| United States of America | Ethiopia | New Zealand |
| Sa'udi Arabia | Finland | Panama |
| Argentine Republic | France | Paraguay |
| Australia | Greece | Netherlands |
| Belgium | Guatemala | Peru |
| Bolivia | Haiti | Poland |
| Brazil | Honduras | Portugal |
| United Kingdom of Great Britain and Northern Ireland | Hungary | Roumania |
| Bulgaria | India | San Marino |
| Canada | Iraq | Salvador |
| Chile | Iran | Siam |
| China | Irish Free State | Sweden |
| Colombia | Iceland | Switzerland |
| Costa Rica | Italy | Czechoslovakia |
| Cuba | Japan | Turkey |
| Denmark | Latvia | Union of Soviet Socialist Republics |
| Free City of Danzig | Liberia | Uruguay |
| Dominican Republic | Liechtenstein | Venezuela |
| | Lithuania | Yugoslavia |
| | Luxemburg | |

In order to facilitate the further preparatory studies of the Organisation for Communications and Transit, the Secretary-General stated that it would be desirable that the replies to the questionnaire, as well as any other remarks on this subject that the Governments might wish to make, should reach the Secretariat by May 31st, 1935, at the latest.

QUESTIONNAIRE RELATING TO THE POLLUTION OF THE SEA BY OIL.

1. Pollution on the coasts from oil and oily mixtures discharged at sea seems to affect (a) birds, (b) fish and the fishing industry, (c) the amenities of the beaches for bathing, recreation, etc., and (d) harbours, through the possibility of the floating oil becoming alight. Please state whether these effects or any other effects have been noticed in your country, and give detailed particulars under each heading.

2. If deleterious effects result to fish and the fishing industry, please state whether (a) fish in the open sea have been affected—*e.g.* by changing their usual habitat owing to the presence of oil or in any other way—(b) inshore fisheries have been affected—*e.g.* by the pollution of shellfish or other fish and of the marine growths which form the usual staple food of fish—(c) fishermen have represented that the pollution has affected their calling, and if so, in what way.

3. Are you prepared to agree to an international requirement that the fitting of separators (for separating oil from water) shall after a period of notice be made compulsory on oil-carrying and oil-burning ships, with or without exceptions in the case of certain vessels? If so, please state what exceptions would be justifiable in your country. If not, please state reasons for declining to agree.

4. Are you prepared to agree to an international requirement that such separators should be designed for and fitted to all new ships which will carry or burn oil? If not, please state reasons.

5. A list of separators now on the English market for use on ships is attached (see Annex 1). Please supply a similar list of any separators available in your country, with particulars of their nature, capacity in tons per hour and cost (stating whether or not the amount given includes the cost of fitting on board ship).

6. Lists are also attached of separators available for use in English commercial and naval ports (see Annex 2). Please supply a similar detailed list of any separators available in ports in your country.

7. Have any representations been made that port facilities of this kind are inadequate (a) in your country, (b) in other countries? If so, give particulars of the ports where it is represented that separators should be available, with the reasons on which these representations are based.

8. It has been contended that oil and oily mixtures discharged from ships at sea may pollute the coasts after travelling, in certain conditions, distances more than 50 and even more than 150 nautical miles. Please supply any evidence, based on scientific or other observations made in your country, which may bear on this question.

Annex 1.

CHIEF OIL SEPARATORS MANUFACTURED IN THE UNITED KINGDOM.

| Marke of separator | Capacity (tons per hour) | Approximate price, 1933 | Approximate price, 1925-1927 |
|--|-----------------------------|-------------------------------|------------------------------------|
| | | £ | 1926 |
| " White " separator, by White's Marine Engineering Co., Ltd., Hebburn-on-Tyne | 15 | 130 | — |
| | 25 | 160 | 446 |
| | 50 | 210 | 546 |
| | 100 | 390 | 800 |
| " Gravity " separator, by Messrs. Vickers Armstrong, Ltd., Barrow-in-Furness | 50 | 150 | 1925 139 |
| | 150 | 275 | 255 |
| " Palmer " separator, by A. R. Brown, Ltd., Liverpool | 50 | 145-154 | 1925 181-193 |
| | 70 | 150-160 | 188-200 |
| " Stream-line " separator, by the Stream-Line Filter Co., Ltd., London | 20 | 155 | 1927 — |
| | 30 | 195 | — |
| | 50 | 275 | 435 |
| | 100 | 475 | 785 |
| " Victor " separator, by R. & H. Green & Silley Weir, Ltd., London | <i>Bilge type</i> | | 1925 |
| | 10 | 72 | 120 |
| | 20 | 96 | 160 |
| | 30 | 138 | 230 |
| | 40 | 180 | 300 |
| | <i>Ballast type</i> | | |
| | 50 | 240 | 400 |
| | 75 | 307 | 512 |
| 100 | 396 | 660 | |
| 150 | 444 | 740 | |

All the above separators are guaranteed to give a discharge purity of well under 0.05% of oil and a discharge of this purity could be put overboard anywhere without causing pollution. In all cases, 1933 prices have been obtained from makers. The figures given in the fourth column for " White " and " Stream-line " separators are quotations by the makers but those for " Gravity ", " Palmer " and " Victor " have been calculated from the following information given by the makers:

- " Gravity ": 1933 prices approximate 8% increase on 1925 prices;
- " Palmer ": 1933 prices approximate 20% reduction on 1925 prices;
- " Victor ": 1933 prices approximate 40% reduction on 1925 prices.

Annex 2.

A. SEPARATING BARGES AND SHORE PLANTS IN THE COMMERCIAL PORTS OF THE UNITED KINGDOM.

| Port and owner | Size of vessel and name | Machinery | Boilers | System | Capacity | Oil recovered storage capacity | Disposal | Source of mixture dealt with |
|---|--|--|--|--|---|--|---|---|
| Glasgow, Clyde Navigation Trust | "Plover", O.N. 115740, 150' x 20.5' x 7.2' | Self-propelled compound steam engines aft; 1 general service pump and 1 at 83 tons per hour for plant purposes | 1 cyl. marine, 100 lb. W.P. | Vessel discharging pumps mixture into "Plover" through series of steam heated cones to 12 cascade tanks to an overboard discharge; oil scummed at will by sluice valve from cascade tanks | 100 to 160 tons per hour, according to quality of mixture | 9 tons in storage; 18 tons in 2 scum tanks (27 tons total) | Into settling tanks ashore by own pump; burned in shore boiler of Clyde Trust | Water ballast tanks; about 13 to 14 vessels on an average dealt with each year; ballast tanks content in almost all cases and opportunity taken to pump bilges at same time |
| Liverpool, Messrs. Grayson Rollo & Clover | "Oil Separator", O.N. 149642, 126' x 16.45' x 7.5' | Self-propelled; two sets single cylinder steam; 1 transfer pump used also for pumping oil ashore | 1 coal-fired Riley thimble tube boiler | Vessel discharging pumps mixture into barge; oil separated by gravity; passed into tank then through cones and baffles oil run into oil tank water passed through second series baffles and oil run off again; water passed through coke filters overboard | 200 tons per hour of mixture | 58 tons | Pumped into tanks ashore and burned in yard boiler for raising steam | Most oily water from ballast tanks but bilge water is also dealt with |
| Do. | "Tulip", 160' x 27.15' x 10.6' | Self-propelled triple expansion steam engine; transfer pump and two vacuum pumps | 1 cyl. marine, 150 lb. W. P. | Two large vacuum tanks suck by hose from tank to be cleaned; removes gas, oil and sludge; when vacuum tank is full it is run off into vessel's main tanks and settled out by heating coils; water is run out of main tanks and leaves oil and sludge | 130 tons per hour | 140 tons | Used for firing boiler of ship and boiler at repair yard; quality varies and mixing with a good quality oil is often necessary for successful burning | Double bottom and main fuel oil tanks; also bilges |

A. SEPARATING BARGES AND SHORE PLANTS IN THE COMMERCIAL PORTS OF THE UNITED KINGDOM (continued).

| Port and owner | Size of vessel and name | Machinery | Boilers | System | Capacity | Oil recovered storage capacity | Disposal | Source of mixture dealt with |
|--|---|---|-----------------------------------|--|--|--------------------------------|--|---|
| Southampton, Messrs. Hemsley & Bell, Ltd. | "Cretol", O.N. 147008, 190' × 33' × 15.5' | No propelling machinery; 2 steam pumps, 150 to 250 tons per hours | 2 Cochran boilers, 150 lb. W. P. | Mixture must be pumped into vessel; 8 steam-heated settling tanks; mixture passes in No. 1 then water drained to No. 2 and same process through all tanks to discharge | 5 tons per hour is maximum rate of discharge of purified water | No storage facilities | Stipulation that recovered oil must be taken back by vessel from which mixture comes | Tanks and bilges of liners and cargo vessels (cost generally well exceeds value of oil recovered) |
| Falmouth, Falmouth Docks & Engineering Co., Ltd. | 121.25' × 22' 11 1/2" × 10' 10 1/2" | Not self-propelled; 1 transfer pump 1 circulating pump | One Cochran boiler, 140 lb. W. P. | Steam heated separating and settling tanks; adjustable oil weir in expansion hatches | 100 tons per hour (with 10% oily mixture) | 313.7 tons | Sometimes oil returned to ship from which mixture obtained but usually sent ashore and again refined for use by barge owners | Vessels under repair only; oil fuel bunkers or tanks of tankers (oily bilge dealt with by a "Victor" separator on a tank wagon) |
| North Shields, Smiths Dock Co. | 125' | Not self-propelled; 1 steam pump | Nil | Mixture pumped into cone separating compartment and oil passed to storage tank, remainder passed through 13 tanks in succession all steam-heated | 200 tons per hour | 60 tons | Usually sent ashore and further refined and burnt in works boiler; occasionally unsuitable oil is dumped under supervision of Tyne Commissioners | Mostly tanks of oil tankers in for repair; bilge occasionally |
| Liverpool, Messrs. Alfred Holt & Co. | "Xanthus" O.N. 149620, 102.6' long | Self-propelled; compound steam engine; 1 transfer pump 25 tons per hour | 1 cyl. marine, 130 lb. W. P. | Series of settling tanks only | — | — | Put into barrels and disposed of as waste | Double bottom, etc., oil fuel tanks only |

| | | | | | | | | |
|---|---|--|-----|--|-----------------------------|----------------------------|--|--|
| Avonmouth, Port of Bristol Authority | 125.75' × 16.3' × 7.75' | Not self-propelled; 1 pump 180 tons per hour; steam supply via flex hose from shore or ship | Nil | Settling out and scumming only | 180 to 200 tons per hour | 28 tons | Vessels served take delivery of recover- ed oil | Tanks of oil tankers chiefly (average 3 vessels per annum) |
| Middlesbrough, Smiths Dock Co. | 125.75' × 16.3' × 7.75' | Not self-propelled; 1 steam pump | Nil | Cascade over weirs and settle- ment in a number of tanks | 175 tons per hour | No capacity for storage | Vessels served take delivery of recover- ed oil; oil or sludge not amenable to treatment spread on waste land | Ships in for repair; oil bunkers or tanks of tankers and whalers' tanks |
| London, Port of London Authority | Two barges "Gog" and "Magog"; 129.75' × 16.4' × 7.75' | Not self-propelled; 1 steam pump each | Nil | Cone separator and cascade filter in 21 compartments, two scum tanks | 50 tons per hour | 30 tons | Recovered oil sold to refiners | Oil tanks of ships and occasional by tankers |
| SHORE PLANTS | | | | | | | | |
| London, Shell-Mex and B.P., Ltd. | Separator of simple design on shore at Purfleet | — | — | Settling tank and weir | (Small) Not state | — | Returned to firm's stock | Tanks and bilges of company's small vessels working on Thames |
| Sunderland, T. W. Greenwell & Co., Ltd. | Portable tank separator collects slops from ships' tanks in dry-dock | — | — | Pumped from portable tank into 3 storage tanks, then through De Laval centrifugal separa- tor | 2 tons per hour | — | Used in boiler furnace of Dry-Dock Co. | Vessels under repair only; oil bunkers and tanks and bilges |
| Liverpool, Messrs. Cammell Laird & Co. | Series of settling tanks, for vessels under repair only | — | — | Settling tanks only; steam from Cochran boiler; 1 steam pump | — | — | Oil returned to ship after repairs com- plete; residue burn- ed in yard boiler if possible. | Oil bunkers and tanks of tankers |
| Swansea, Anglo-Persian Oil Co. | For use on Anglo-Persian Oil Com- pany's tankers only | — | — | 2 settling tanks not heated; capacity of tanks 800 tons | — | — | Used by company for its original purpose | Tanks of oil tankers only |
| Swansea, Palmer's Dry Dock Co. | For ships using the dock only; patent separator | — | — | Palmer's Rocket separator | — | 4 tons | — | Very rarely used |

B. SEPARATING BARGES IN THE NAVAL PORTS OF THE UNITED KINGDOM.

| | Portsmouth | Devonport and Sheerness |
|---|--|---|
| Size of vessel | 105' × 21' × 7' 6" (moulded depth) | 98' × 20' × 8' (moulded depth) |
| Machinery | Used as dumb lighter Propelling machinery disconnected Machinery, other than propelling machinery consists of small pumps for boiler and separator plant | Dumb lighter No propelling machinery fitted Machinery fitted consists of pumps for boiler and separator plant |
| Boilers and working pressure | 1 vertical boiler; working pressure, 60 lb. per sq. in. | Devonport: 1 vertical boiler, W.P. 80 lb. per sq. in. Sheerness: 1 vertical boiler, W.P. 100 lb. per sq. in. |
| Short description of separating system | Pirbright separator, gravity and filter system | "Stream-Line" separator, gravity and filter system |
| Capacity of separating system | 100 tons per hour | 175 tons per hour |
| Approximate purity of effluent | 0.001 % | 0.001 % |
| Capacity of recovered oil storage tanks | 16½ tons | 63 tons |
| Method of disposal of recovered oil | Supplied for burning in yard furnaces and ships' boilers | |
| Source of mixture dealt with | Tanks of oil tankers and bilges and tanks of His Majesty's ships | |

On July 16th, 1935, the Secretary-General addressed a Circular Letter to the Governments which, up to that date, had not replied to the questionnaire, drawing their attention to his communication of January 23rd, 1935, and asking them to transmit their replies as soon as possible.

CHAPTER II.

SUMMARY OF THE REPLIES TO THE QUESTIONNAIRE.

Below are summarised the replies to the questionnaire which the Secretariat had received up to August 15th, 1935. It will be noticed that all the communications received were prepared by the actual Governments addressed except those from Australia, which referred the questionnaire to the six States of the Commonwealth, and Egypt, which sought the opinion of three interested bodies within that country; also that several of the Governments did not transmit particulars on all the points of the questionnaire. While the Secretariat has not yet had all the replies, those from most of the leading maritime countries have already been received.

To facilitate reference to the replies, a summary of the questionnaire, the complete text of which appears on page 5, is give hereunder:

1. Effect of oil pollution:
 - (a) Birds;
 - (b) Fish and fishing industry;
 - (c) Resorts;
 - (d) Danger of fire in harbours.
2. Effect on fish and fishing industry:
 - (a) Fish in open sea;
 - (b) Inshore fisheries;
 - (c) Fishermen's calling.
3. Willingness to subscribe to an international requirement for fitting (after due notice, compulsory separators for separating oil from water on oil-carrying and oil-burning vessels) with or without certain exceptions.
4. Willingness to subscribe to an international requirement to design separators and fit them to *new* oil-carrying and oil-burning vessels.
5. List of available separators on market, with particulars of their nature, capacity and cost.
6. List of available separators in commercial and naval ports.
7. Representations regarding inadequacy of port facilities of this kind:
 - (a) In the country in question;
 - (b) In other countries.
8. Scientific or other evidence regarding oil pollution at sea.
9. Other observations of Governments.

* * *

I. EFFECT OF OIL POLLUTION.

(a) *Birds.*

United States of America.

Evidence is given of extensive damage on the Atlantic coast, 1919-1930; in 1934, reports from various United States coastal areas showed that pollution had disappeared or had greatly improved.

United Kingdom of Great Britain and Northern Ireland.

Numerous sea-birds are reported to have been observed dead or dying of lingering starvation in recent years on various parts of the shores. Their wings were saturated with oil, and they were unable to fly, swim or dive.

Newfoundland. — Negligible.

Canada.

Thousands of sea-birds perish each year as a result of pollution of the sea by oil. It has been observed that in areas polluted by oil birds' plumage becomes saturated and they cannot dive or go under water for their food. They, consequently, cannot feed and slowly starve to death. It is reported in some localities, however, that wild fowl are becoming "educated" to the dangers of floating oil and that they avoid smooth areas on the water which they sense indicates the presence of oil, and will not light on the surface where such exist. If this "education" continues, one of the most distressing results of oil pollution will be largely removed.

Denmark.

Regular reports of the destruction of birds in certain localities and at certain seasons have been received by the Government.

Free City of Danzig.

See 3.

Egypt.

No opinion was expressed by the Egyptian Government on any of the questions.

Ports and Lighthouses Administration. — Few birds live in the coastal regions, but the discharge of oil is doubtless harmful to them.

Spain.

A statement is made as to the deleterious effects.

France.

The disappearance of sea-birds which has been noted for some time as a result of the increasing use of heavy oils as fuel for vessels has been brought to the notice of the public authorities, and Professor Portier, Member of the Academy of Medicine, has studied the effects of the discharge of fuel-oil residues on such birds.

The experiments recently made have been absolutely conclusive so far as concerns the harmful action of oil on sea-birds; the bird, whose feathers have been soaked in fuel oil, dies of cold, since the oil cuts off the air from the bird's feathers, and water penetrates, chills the body, and causes death. Professor Portier has demonstrated that a duck, whose feathers had not been soaked in heavy oil, weighed approximately the same before and after going into the water, which showed that the non-contaminated feathers had not let in water; whereas the same bird, covered with fuel oil and again put into the water, showed an increase of weight corresponding to the considerable quantity of water absorbed by its feathers. It seems to be proved that a bird whose feathers have been soaked in fuel oil refuses to enter the water; which, in the case of sea-birds, may lead, apart from death from cold, to death from starvation, since the birds thus affected cannot dive to seek their food.

Irish Free State.

Especially on the south-east coast are the deleterious effects on birds noticeable.

Norway.

Although oil pollution has been rarely noticed, in many localities birds have perished from such effects.

New Zealand.

Two localities reported deleterious effects on birds.

Netherlands (and Colonies).

Especially to foreign birds which spend the winter in Netherlands waters are the deleterious effects serious.

Sweden.

There is evidence of a large-scale destruction of sea birds in the vicinity of the Swedish coasts.

* * *

The following countries stated that there was no evidence of deleterious effects: Union of South Africa, Bulgaria, Estonia, India, Iraq, Italy, Iceland, Latvia and Turkey. The Government of Australia, which referred the questionnaire to the States of the Commonwealth, did not express

an opinion on any of the points raised. The Australian States (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia) replied negatively to this point.

(b) *Fish and Fishing Industry.*

United States of America.

Attention is directed to "Report of the United States Bureau of Fisheries: Preliminary Investigation on Effect of Oil Pollution on Marine Pelagic Eggs, April 1925" (in "Oil Pollution of Navigable Waters": Report to the Secretary of State by the Interdepartmental Committee, 1926). Its conclusions are:

" 1. Under conditions more nearly approaching those prevailing in nature no inhibitive effect is exerted on cod eggs by a one-tenth per cent dilution of light or heavy bunker oil.

" 2. Under conditions of limited circulation or aeration a detrimental effect on cod eggs is exerted in varying degrees by the same oils.

" 3. A slight but not highly significant injurious effect is exerted by the same oils under the same conditions upon larval flounders.

" 4. The effects upon the larger plankton organisms are in general similar to those exerted upon the cod eggs.

" 5. The detrimental effects of the oils are based either upon directly toxic properties or upon interference with aeration. No evaluation of the relative importance of these influences can be drawn from present data.

" 6. Further biological enquiry upon a larger scale is necessary but should be based upon more specific knowledge of the physical and chemical phenomena accompanying oil pollution."

Australia.

South Australia. — One case was reported some years ago that fish in the wells of fishing-boats at one port had perished from the effect of oil pollution.

United Kingdom of Great Britain and Northern Ireland.

See 2.

Newfoundland. — Negligible.

Canada.

There is a very injurious effect on shellfish in certain localities.

Spain.

Deleterious effects are especially noticeable at the port of Mahon.

France.

So far as concerns fish and fisheries, the chief disadvantages are the impossibility of selling fish and shellfish and the excessive mortality among certain species (see 2).

Irish Free State.

See 2.

Italy.

No deleterious effects have been observed when oil is discharged at more than five miles from the shore. Oil discharged in the open sea is of little danger to Italian fisheries as the eggs are deposited only in the immediate vicinity of the coast, owing to the rapid shelving of the sea-floor. The Mediterranean (apart from the Upper Adriatic) has generally very few stretches of low water exposed to the open sea where eggs and larvæ would suffer seriously from the deleterious effects of floating oil. In these waters, such effects are always to be found within the six-mile territorial limit.

Sweden.

There is evidence of considerable damage to fisheries.

* * *

The following countries stated that there were no deleterious effects: Union of South Africa, Australia (New South Wales, Queensland, Tasmania, Victoria and Western Australia), Bulgaria, Denmark, Free City of Danzig (see 3), Egypt (Coastguards and Fisheries Administration), Estonia, India, Iraq, New Zealand and Turkey.

(c) *Resorts.*

United States of America.

Attention is drawn to the deleterious effects on bathing-beaches and shore property and to public health (reference to document mentioned under 1 (b)).

Australia.

Victoria. — Minor complaints have been received.

United Kingdom of Great Britain and Northern Ireland.

On the whole, while there has been an improvement in this respect, harmful effects on seaside resorts have been reported. The presence of oil has resulted in pollution of the beaches; has caused damage to property such as clothes, chairs, tents, etc.; has been detrimental to bathers and users of the shore for purposes of recreation, and has caused depreciation in the value of these resorts and operated generally to their prejudice.

Canada.

There is a very injurious effect in the fouling of waters along the shore and bathing-beaches.

Denmark.

Very slight.

Free City of Danzig.

See 3.

Spain.

A general statement is made as to the deleterious effects.

France.

Complaints have been made in recent years of the contamination of certain beaches by waste fuel-oil discharged into the sea. Since the pollution of such parts of the coast is liable to injure the reputation of the seaside resorts concerned, and also to be harmful to the health of tourists, the French Administration took up the question and endeavoured to devise measures for minimising the inconvenience resulting from the pollution of waters in the neighbourhood of such bathing-beaches.

India.

Slight effect at three resorts near Bombay.

Italy.

The unimportant complaints are being dealt with by the prohibition of oil discharge at distances ranging from five to fifteen miles of the coast.

New Zealand.

Measures have been enforced to diminish such effects as were noticeable.

Netherlands (and Colonies).

The deleterious effects are less noticeable now than in the years immediately following the great war.

Sweden.

There is evidence of deleterious effects.

* * *

The following countries stated that there were no deleterious effects: Union of South Africa, Australia (New South Wales, Queensland, South Australia, Tasmania and Western Australia), Bulgaria, Iraq, Irish Free State and Turkey.

(d) *Danger of Fire in Harbours.*

United States of America.

Attention is drawn to the fire hazard to shore structures and floating craft (reference to document mentioned under 1 (b)).

Australia.

New South Wales. — Evidence of one fire, and indication of fire danger were transmitted.

Victoria. — No trouble has been experienced, but segregation of oil tankers from other shipping is now receiving the attention of an expert board.

United Kingdom of Great Britain and Northern Ireland.

Only one serious case has been reported in recent years of *heavy* oil floating in a harbour becoming alight, and the cause is unknown, every effort to trace the origin of the oil having been unsuccessful. It is probable, however, that this oil did not drift into the harbour from the sea.

Generally, it appears that of the three kinds of heavy oil mentioned in the draft Washington Convention, 1926—*viz.*, crude, fuel and Diesel oils—very little crude oil, as obtained from the wells, is brought by ship into any harbour in Great Britain or Northern Ireland. This oil would contain volatile oils and would, especially when freshly discharged, ignite on water. As regards fuel and Diesel oils, they have a relatively high flash point and apparently would not, if discharged into a harbour or river, be readily ignited without some other medium being employed.

The discharge of oil in harbours in Great Britain and Northern Ireland is prohibited by the Oil in Navigable Waters Act, 1922.

Canada.

There is a very injurious effect in harbours in the fouling of paint on vessel hulls and the creation of a fire menace on marine works of wooden construction.

Spain.

Deleterious effects (general).

Estonia.

Port firemen at Tallinn are especially equipped to meet this danger.

France.

In the case of harbours, the existence of oil on the surface of the sea has caused the outbreak of fire and damage to wharves, since cement and lime disintegrate when soaked in oil.

Italy.

Evidence is produced to illustrate this danger in harbours.

Sweden.

There is evidence that the presence of oil in or near ports constitutes a danger of fire.

* * *

The following countries stated that there were no deleterious effects: Union of South Africa, Australia (Queensland, South Australia, Tasmania and Western Australia), Bulgaria, Free City of Danzig (see 3), Egypt (Ports and Lighthouses Administration), India, Iraq, Irish Free State, New Zealand and Turkey.

2. EFFECT ON FISH AND FISHING INDUSTRY.

(a) *Fish in Open Sea.*

United States of America.

The United States' reply refers to page 24, "Pollution affecting Navigation or Commerce on Navigable Waters", by Chief of Engineers, U.S. Army, 1926; this reference, however, appears to deal principally (and in general terms) with inland waterways.

There is an indication that the fishing industry suffers primarily due to the driving of fish from accustomed spawning and feeding grounds, and the fouling of boats and fishing gear, rather than from the destruction of fish (document referred to under 1 (b)).

Canada.

There is no evidence that fish have changed their habitat as a result of oil pollution.

Spain.

Deleterious effects (general).

France.

In the opinion of the Scientific and Technical Office for Maritime Fisheries, pollution by oil has not as yet exercised any influence on the high seas on fish and ocean plankton. Furthermore, the French Administration has not received any special complaints on this matter.

Although the Office is also of opinion that the presence of sheets of heavy oil on the high seas could not result in fish in the ocean being obliged to change their habitat, it notes that, so far as estuaries are concerned, fish of the salmon family which are in the habit of proceeding upstream to their spawning-grounds leave polluted waters for rivers where the water is purer.

In the case of high-sea crustacea, as in that of ocean fish, pollution has not yet been found to affect their preservation.

Italy.

See 1 (b).

* * *

The following countries replied that there were no deleterious effects: Union of South Africa, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), United Kingdom of Great Britain and Northern Ireland (and Newfoundland), Bulgaria, Denmark, Free City of Danzig (see 3), Egypt (Coastguards and Fisheries Administration and Faculty of Science, Egyptian University—the latter as far as the Red Sea is concerned), Estonia, India, Iraq, Irish Free State, Iceland, Latvia, New Zealand, Norway, Netherlands (and Colonies) and Sweden.

(b) *Inshore Fisheries.*

United States of America.

See 2 (a); some complaints have been made regarding the effects on oyster-beds.

Australia.

New South Wales. — Fisheries inspectors report that in the industrial areas of the larger ports fish are definitely affected, particularly in the immature stage, but not to any extent in the smaller estuaries.

United Kingdom of Great Britain and Northern Ireland.

While the extent of the damage on the coasts to date does not appear to be considerable, reports have been received from different sources to the effect that damage to shellfish beds has, from time to time, been sustained. It is clear that crustacea as well as molluscs are affected—*e.g.*, cases have been reported where crabs have been rendered inedible by contamination from bituminous deposits on the foreshore. There is also some evidence that the seaweed eelgrass (*Zostera marina*) is injuriously affected by oil pollution, but it is not possible in the present state of the information available to the Government to say whether the widespread disappearance of this weed in recent years is associated with any increase in oil pollution.

Canada.

In certain fisheries pollution makes it inadvisable to hold live lobsters on wharves while awaiting shipment.

Spain.

Deleterious effects (general).

France.

Small coastal fisheries are very seriously affected by pollution of waters near the coast; fish caught in places where such pollution is particularly serious very often have a strong oily flavour which renders them unfit for consumption. Fish caught under such conditions obviously cannot be supplied to the trade, and in certain special cases the impossibility of selling the kind of fish caught has been found to involve an almost complete suspension of the fishing industry until traces of contamination have disappeared.

An interesting phenomenon occurred in 1934 in the bay of the Seine, where the waters have been much polluted for some considerable time by discharges of heavy oil residues from ships frequenting the estuary and from factories on the banks. On several occasions—corresponding to the periods when the discharge was most abundant—large quantities of dead (probably poisoned)

fish were seen floating on the surface, which tends to show that pollution beyond a certain point may lead to the wholesale destruction of fish.

Near the coasts, crustacea seem also to be affected by the contamination of the waters; thus shrimps caught on the Havre shore in a period in which this part of the coast was polluted by heavy oil residues were found to have a strong taste of oil, and for some time shrimps thus caught were refused in the various markets to which they were generally sent.

In the same way, crustacea (lobsters or sea crayfish) enclosed in floating fish-ponds moored along the coasts have sometimes suffered from the discharges made in the neighbourhood by vessels emptying their tanks or cleaning their bilges; such discharges have, indeed, caused considerable mortality among lobsters and sea crayfish kept in fish-ponds (such cases have been verified by the oceanographic research ship of the Office of Fisheries which is anchored in Brest harbour).

Molluscs and shellfish are particularly sensitive to the condition of the waters around them, which influence both their flavour and their appearance. Complaints have on various occasions been made to the Administration of the Merchant Marine by oyster-farmers, who stated that the species cultivated in their oyster-parks, oyster-beds or shellfish-growing establishments had a sufficiently pronounced taste of oil for it to be impossible to put them on sale immediately; sometimes the molluscs or shellfish affected had a sticky strip on the shell, or a muddy colour inside; very often, however, the disagreeable taste existed without any external sign.

Latvia.

It is held that the discharge of oily residues in the waters of the Daugava by an oil refinery in the vicinity of Riga suffocates fish.

Sweden.

Some deleterious effects have been noticed.

* * *

The following countries replied that there were no deleterious effects: Union of South Africa, Australia (Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Egypt (Coastguards and Fisheries Administration), India, Iraq, Irish Free State, Newfoundland and New Zealand.

(c) *Fishermen's Calling.*

United States of America.

See 2 (a) and (b).

United Kingdom of Great Britain and Northern Ireland.

Apart from the damage to shell-fisheries inshore fishermen are adversely affected by oil pollution in that their nets and gear are liable to become fouled, when the fish caught may also be directly affected—*e.g.*, crabs and lobsters caught in pots or stored in floating trunks. Inshore fishermen in various districts report a scarcity of fish other than shellfish which they attribute to the effect of oil pollution, but His Majesty's Government are advised that it would be unsafe on the evidence at present available to assume that oil pollution is the sole cause, although it may be a contributory one.

Spain.

Deleterious effects (general).

France.

Stress should be laid on the damage caused to fishing-nets and tackle used in contaminated waters; material used under such conditions has often been taken out of the water in such a state of filth that it was impossible to clean it, since the fatty residues floating in the water impregnate the nets to a very considerable extent and become fixed in them. In certain cases, tackle has been rendered unfit for use, a very considerable loss being thus caused to the owners of the damaged material.

Italy.

Sporadic and of little importance.

Norway.

From time to time, fishermen have complained of the fouling of nets.

Sweden.

While fishermen have rarely complained, proprietors of fishing-boats have reported fouling of boats.

* * *

The following countries replied that there were no deleterious effects: Union of South Africa, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Egypt (Coastguards and Fisheries Administration), India, Iraq, Irish Free State, Latvia and New Zealand.

3. WILLINGNESS TO SUBSCRIBE TO AN INTERNATIONAL REQUIREMENT FOR FITTING (AFTER DUE NOTICE) COMPULSORY SEPARATORS FOR SEPARATING OIL FROM WATER ON OIL-CARRYING AND OIL-BURNING VESSELS, WITH OR WITHOUT CERTAIN EXCEPTIONS.

Union of South Africa.

There is no objection to an international requirement, but the lack of space might prove an insuperable obstacle in the case of existing vessels (only a few whalers and other small coasting craft).

United States of America.

The Government is not in a position at this time to agree or disagree; such a requirement would place a heavy financial burden on shipping which is experiencing great economic difficulties; in view of improved conditions along the American coasts, there seems to be serious question whether the above requirement would be warranted.

Australia.

New South Wales. — Yes, without exception.

Queensland. — Yes, without exception.

South Australia. — The fitting of separators on all ships is considered to be the only effective means of dealing with the problem.

Tasmania. — Hobart: The Marine Board would be guided largely by the action of the Commonwealth Government (see 9); Launceston: The Marine Board is prepared to fall in line with any recommendations made by the Australian Harbour Authorities; Mersey: The Marine Board is prepared to accept the views of ports which have had wider experience with this type of vessel; Strahan: Yes, without exception.

Victoria. — The principle of separating oil from water in vessels should be accepted as tending to eliminate fire risks from harbour waters and possible pollution as the number of ships conveying or using oil increases.

Western Australia. — No objection.

United Kingdom of Great Britain and Northern Ireland.

As, in the opinion of the United Kingdom Government, questions 3 and 4 involve similar considerations, it was proposed to deal with them together. They relate to one of the three remedies for the evil of oil pollution which solely or in combination have entered into all the discussions on the subject in the United Kingdom from the Washington Conference of 1926 onwards—viz., (a) the establishment of "zones" of so many miles in width from the coasts within which the deposit of oil and oily water should be prohibited; (b) the provision of receptacles such as separating barges in ports for dealing with waste oil and oily mixtures, and (c) the compulsory provision of separators on board ship.

There is a conflict of opinion in the United Kingdom with regard to the remedy mentioned in these two questions—viz., the compulsory fitting of separators on oil-carrying and oil-burning ships. Societies such as the Royal Societies for the Protection of Birds and for the Prevention of Cruelty to Animals, and many local coastal bodies supported by a considerable body of opinion are in favour of this remedy, the advocates of which support their contentions, *inter alia*, by a statement that separators are much cheaper than they were in 1926 and that the oil recovered from them can be used again.

A typical representative of this class of opinion is the Royal Society for the Protection of Birds, whose views are that the voluntary action by the shipowners in this and some other countries in prohibiting the discharge by their ships of oil, etc., within fifty miles of any coast has touched only the fringe of the evil; that "the action needed is uniform legislation in each country, declaring that pollution by its national ships is prohibited everywhere and requiring that effective measures be

taken for preventing pollution"; that these measures should include the fitting of separators on board existing and new oil-driven and oil-carrying ships, and be supplemented in some cases by facilities in ports for dealing with the sludge remaining after the separation of the oil and water. The Society rejects entirely the remedy involving the establishment of "zones", on the ground that no "zone" could be wide enough to be effective, since there is evidence that oily substances discharged at sea will float for very long periods, and drift many hundreds of miles.

The Chamber of Shipping and the Liverpool Steamship Owners' Association, the two bodies representative of the shipowners in the United Kingdom, contend that the fitting of separators, apart from the fact that it would not prevent discharge of oil from ships involved in casualties or other emergencies, would be impracticable in the case of many vessels and unnecessary in that of others, while it would impose upon the shipowners a heavy additional financial burden which, in the present state of their industry, they could not bear. They say, as regards tankers, that there is general agreement among their members that independent separators on board tankers would be redundant and that, in fact, "a tanker may be regarded as in itself a large separator". Moreover, they state that there is no separator on the market of a sufficient capacity to meet the requirement of an average ocean-going tanker for an effective minimum throughput of 400 to 500 tons an hour. As regards other oil-burning vessels these bodies assert that there is no occasion to fit separators in ships where fuel oil tanks are used for bunkers only, and that as regards ships not in this category—*i.e.*, which carry oil and water alternately in double-bottom tanks—the utility of separators depends entirely on the class of vessel and trade and that the question of their fitting should be left to the discretion of owners and should not be made compulsory. The two bodies estimate that a separator of the required capacity for tankers, if it could be manufactured, would cost, including the cost of installation and the necessary fittings, at least £1,500, and that as there are 380 tankers under the British flag the total cost would be £570,000. For other oil-burning ships, taking a conservative estimate of £250 a separator, and adding at least £50 for fitting, the total estimated cost, on the basis of 1,082 ships at £300 each, is given as nearly £325,000. The total cost for tankers and other oil-burning ships would thus be £895,000 for installation alone, without regard to consequential costs or losses such as loss of cargo capacity which would reduce earnings. As to the question of the economic value of a separator, the two bodies say that, as regards tankers, there is general agreement among their members that separators would not be an economic proposition. As regards other oil-burning vessels experience differs; some owners find separators an economic proposition, while others do not. Generally, the view of the two bodies is that the compulsory fitting of separators would not provide an effective guarantee against oil pollution, that any obligation imposed on shipowners to fit separators could not be justified, and that the inherent difficulties in the use of separators to which they call attention would not be removed by limiting their compulsory use to new tonnage. In their opinion, the solution of the problem would be found if the terms of the Washington Convention of 1926 were properly observed by all countries and all ships concerned. The views of the two bodies, which involve a number of technical considerations, are given in full in the two statements¹ to the United Kingdom reply annexed.

The United Kingdom Government is prepared to fall in with any international scheme proposed by the League of Nations which moves in the direction of effectively lessening the damage done by oil pollution in navigable waters. The Government say that the practicability of any remedy will be governed by a survey of the evidence to be collected in reply to the questionnaire from all the countries interested in the problem. The effectiveness of any remedy will depend partly upon its merits but largely upon international action in applying it. The action of one or two countries alone could not be effective. While this is the general position of His Majesty's Government, it would not be disposed, on the evidence before it, to agree to an arrangement which made it necessary to fit separators in ships where the fuel oil tanks are not used for ballast.

Newfoundland. — Tanker traffic is so small that it would not pay to instal separators.

Bulgaria.

Yes.

Canada.

Such an international requirement is opposed by shipping interests on account of the cost of installation, and doubt is expressed as to the beneficial results to be expected.

Denmark.

Replying under one heading to questions 3 and 4, the Danish Government, in view of the information at present available regarding the extent to which oil is discharged and the effectiveness and cost of oil separators, assumes that the considerable financial burden which would

¹ These Statements are in the Archives of the Secretariat.

be placed on shipping by an international requirement for the fitting of separators in ships which carry or burn oil is out of proportion to the advantage to be expected from such an arrangement. For the present, therefore, it cannot be expected that Denmark will agree to adhere to an international agreement making the use of oil separators compulsory in existing or new vessels.

Free City of Danzig.

The few instances of oil pollution noticed in foreign ports would hardly justify the great expenditure involved in purchasing, installing and operating separators on tankers. On the other hand, inefficient separators would, when vessels pumped oily water overboard in a harbour, be productive of more dangerous conditions than the present [presumably Danzig] rules, which insist that though oily water may in certain circumstances be discharged into the sea, it must be outside the limit of fifty nautical miles from any coast. The observance or the stricter application of these rules should be an entirely adequate protection both to life in and on the sea, and also for seaside resorts and harbours as regards danger from fire.

A greater danger than that from tankers would seem to lie in the innumerable small craft which, especially when they are fishing vessels, have a small bilge pump permanently working off the engine, and constantly discharge oily water, even if only in small quantities. For these exceptionally numerous small craft, which operate almost entirely in harbours, estuaries and coastal waters, oil separators would be out of the question. Even if it were possible to construct oil separators that were absolutely reliable in operation, the room they would occupy in the restricted space on board a ship, as well as their weight, would be an inconvenience to small motor-craft; in addition, the separation of oily residue from water-ballast would require a by no means negligible amount of time; and finally, to accommodate the waste oil separated in the vessels, it would be necessary to set aside additional space that would thus no longer be available to hold cargo.

Egypt.

Ports and Lighthouses Administration. — Yes.

Coastguards and Fisheries Administration. — Yes.

Faculty of Science, Egyptian University. — It suggests that the Egyptian Government should support the United Kingdom Government in this matter.

Spain.

Yes, on ships of a certain tonnage.

Estonia.

The Government is unfavourable, because of the absence of oil pollution and the expense of such installation.

France.

In the case of warships, the fitting of apparatus for separating oil and water cannot be contemplated. Such vessels frequent certain definite harbours in which there are separators ashore or on local boats. The fitting of separators on board would further involve overloading the vessels, which might affect their fighting efficiency, and would also entail very heavy expenditure.

For merchant and passenger vessels, the international obligation to fit separators is also far too burdensome. French shipowners, who have already been hard hit by the present crisis, would be the less ready to accept such an obligation since the same results can be obtained by simpler and less expensive methods. Furthermore, fitting such apparatus might, especially in small vessels, lead to serious and sometimes insurmountable difficulties.

Hungary.

As a land-locked State, Hungary is not directly interested and will not at present accept the obligation to install separators.

India.

Yes, provided that the fitting of such separators will not be compulsory for small vessels.

Iraq.

The Government would be glad to consider acceptance of an international agreement providing for the compulsory fitting of separators.

Irish Free State.

Yes, without exception.

Iceland.

The Government is unfavourable because of (a) absence of oil pollution; (b) cost; (c) lack of space on vessels.

Italy.

Italy is a country which imports mineral oils, so that the question of the discharge of ballast-water in harbours by oil-carrying ships does not arise, as they come into port loaded.

Italian shipowners are in the main opposed to the compulsory fitting of separators on oil-carrying and oil-burning ships, as such a regulation would not, in their opinion, provide an effective safeguard against the pollution of the waters.

The expense of fitting separators, with all the necessary accessories (piping, valves, etc.), would be considerable and Italian shipowners do not consider that that expenditure—together with the additional cost of working and upkeep—would be made up for the oil recovered by this means.

Italian shipowners point out that the oil carried by a vessel as cargo, and hence the oil recoverable by treating the ballast-water with a separator, may also be different in quality and grade from that burnt by the same vessel, and the difference in grade is often too great for the two oils to be mixed in the bunkers. This is a further reason why it may be very difficult to dispose of the oil recovered.

With reference to the fitting of cleansing apparatus on board vessels, Italian shipowners also observe (1) that it takes up a good deal of room, and, consequently, if a vessel is under way, it would be difficult to find sufficient space for setting it up, apparatus, which is small in bulk though fairly adequate for purposes of cleansing, being absolutely useless for coping with ballast- or bilge-water; whereas, on the other hand, if the capacity of the apparatus were increased, the degree of cleansing would be quite inadequate; (2) that it is very expensive and the cost of fitting it on board the vessel and operating it is not covered by the value—at present prices—of the small quantities of oil recovered, especially as the latter are generally found to be mixed with water, other oils and other foreign matters, and are consequently of no use whatsoever on board.

This notwithstanding, separators for the cleansing of ballast- and bilge-water have been in use for some time on practically all the bigger vessels of the "Italia" Shipping Company.

Only a few of the company's smaller ships—the Principessa Maria, the Principessa Giovanna, and the motorships Romolo, Remo, Esquilino and Viminale—are not fitted with this apparatus. In point of fact, owing to the great expense, the "Italia" Company does not propose to fit these vessels with separators, but will continue, so far as they are concerned, to discharge the bilge-water in the open sea, or to arrange in port for the drying of the residue of mixed water and oil by making it into a paste with sawdust in the usual way and discharging it in that form into the bumboats.

For the navy, a convention might be agreed to:

(a) Making it compulsory for warships of over 5,000 tons to be fitted with oil-separators (after careful examination of the plans it has been found impossible to fit separators on vessels of smaller tonnage, owing to lack of space);

(b) Making it compulsory for all liquid fuel transports of the Royal Navy of over 2,000 tons to fit separators on board, on the understanding that any vessels exempt shall discharge contaminated water outside the prohibited zone;

(c) Establishing at the limit of territorial waters (six miles) the zone within which warships exempt from the obligation to fit separators may discharge contaminated water.

Latvia.

Yes.

Norway.

It is prepared to accept obligation to instal separators only for the cases mentioned in point 4 of the questionnaire. Oil pollution cannot be effectively prevented even by a general ruling that separators be installed. The Norwegian Government is not prepared to charge the merchant marine with an expense of 10 million crowns for the fitting of *all* ships with separators.

New Zealand.

Yes, for any reasonable requirement; small vessels to be exempted.

Netherlands (and Colonies).

The Government is opposed to the compulsory installation of separators because of the difficult financial position of shipping. The Government, however, is prepared to accept the draft Washington Convention which contemplates a study of the question. Already the Government voluntarily applies the stipulations of this draft Convention.

Poland.

The Government does not believe it would be necessary to fit separators on all vessels; for instance, such installation is not required on fishing and motor-boats operated in a port or within coastal waters.

Sweden.

See 9; the Swedish Government raises the question of the completion, if necessary, of a future Convention by the addition of provisions for the compulsory fitting of separators in all important ports served by the categories of ships under consideration. The interested industries object to the compulsory fitting of separators on existing vessels because of the cost and lack of space.

Czechoslovakia.

Yes, without exception.

Turkey.

Yes.

4. WILLINGNESS TO SUBSCRIBE TO AN INTERNATIONAL REQUIREMENT TO DESIGN SEPARATORS AND FIT THEM TO *New OIL-CARRYING AND OIL-BURNING VESSELS.*

Union of South Africa.

The installation of separators on vessels referred to under 3 might be possible.

United States of America.

See 3.

Australia.

New South Wales. — Yes, without exception.

Queensland. — Yes.

South Australia. — Yes.

Tasmania. — Hobart: See 3 and 9; Launceston: See 3; Mersey: See 3; Strahan: Yes.

Victoria. — There is no reason why new ships should not be fitted with separators.

Western Australia. — Yes.

United Kingdom of Great Britain and Northern Ireland.

See 3.

Newfoundland. — See 3.

Bulgaria.

Yes.

Canada.

See 3.

Denmark.

See 3.

Egypt.

Ports and Lighthouses Administration. — Yes.

Coastguards and Fisheries Administration. — Yes.

Faculty of Science, Egyptian University. — See 3.

Spain.

See 3.

Estonia.

There is no opposition to such installation on new vessels, if there are no other effective ways of preventing oil pollution; such installations, however, would be purely voluntary.

France.

The application of such regulations to new ships would raise the same objections as in the case of ships already in service, although the technical difficulties connected with fitting the separators would be less serious.

It would seem that such action, while not made compulsory, might be "strongly recommended" to shipowners, particularly for large vessels and those provided with tanks which are also used for water-ballast. The putting into force even partially of such a recommendation would probably, following gradually the development of navigation by motor-vessels, oil fuel and the transport of oil products, be sufficient to lead to a parallel decongestion of the purifying plant the installation of which in harbours is contemplated, and which otherwise might at any moment find itself with more work than it could handle.

Consideration might also be given to the possibility of recommending Governments to encourage the fitting of purifying plant on new vessels by any administrative or fiscal measures that they might judge necessary.

Hungary.

See 3. If the economic situation improves, the Government will reconsider the question, especially as regards new oil-burning vessels.

India.

See 3.

Iraq.

See 3.

Irish Free State.

Yes.

Iceland.

See 3.

Italy.

The Italian Government is prepared, in the interests of solidarity, to agree to an international undertaking between *all* maritime countries that separators should be fitted to all new ships which will carry or burn oil, subject to the restrictions mentioned in the previous paragraph in regard to warships.

Latvia.

Yes.

Norway.

Yes, except for small vessels.

New Zealand.

See 3.

Netherlands (and Colonies).

See 3.

Poland.

The Government would agree to fit separators on new oil-carrying ships.

Sweden.

Such installation on new vessels would, according to the interested circles, involve considerable expense and alterations in design.

Czechoslovakia.

Yes, without exception.

5. LIST OF AVAILABLE SEPARATORS ON MARKET, WITH PARTICULARS OF THEIR NATURE, CAPACITY AND COST.

United States of America.

The following list was transmitted; it is understood that the prices given do not include the cost of installation:

Oil and Water Separators.

| Manufacturer | Type | Capacities (tons per hour) | Cost | Weight (dry) (in lb) |
|---|-----------------|-------------------------------|---------|-------------------------|
| Bethlehem Shipbuilding Corp., Quincy, Mass. | Slop | 5 up | \$1,000 | 1,500 |
| Oliver United Filters, Inc., Oakland, Cal. | Filter | 5 up | — | — |
| J. T. Welsh, Ridgeway, Pa. | Slop and filter | 5 up | \$1,100 | 1,100 |
| Condenser Service & Eng. Co., Hoboken, N.J. | Slop | 5 up | \$1,200 | 1,070 |
| Youngstown Steel Car Co., Niles, Ohio. | — | — | — | — |
| Sharples Speciality Co., Philadelphia, Pa. | Filter | — | — | — |

Note. — The blanks indicate that the information is not available, the last two companies listed having failed to respond to invitations to bid. All companies make separators of capacities from 5 tons per hour up. Weights and prices were taken from recent bids. The plain "slop" type of equipment is one in which the separation is effected due to difference in specific gravity as the oil and water mixture passes over a series of baffles. Others contain filtering elements.

United Kingdom of Great Britain and Northern Ireland.

See lists attached to League Circular Letter (pages 6-10).

Denmark.

Such separators are not manufactured in Denmark. In a few cases, separating apparatus on the settling principle has been fitted to Danish motor-vessels, but this system can hardly be expected to become at all widespread. No information can be given regarding the capacity of such apparatus or the cost of its installation.

Egypt.

Faculty of Science, Egyptian University. — See 3.

Spain.

None; but the Government states that the Spanish industry could easily construct them from foreign models.

France.

The only separators, the use of which on ships has been reported in France, are those with which the passenger vessels of the Compagnie Générale Transatlantique are fitted. These are the "Separators system L. J." of the Société provençale de Constructions navales, 3 rue de la Baume, Paris, VIII^e.

The main types built by this company are the following: (a) single separators (suitable for average-size cargo-boats)—hourly capacity: 40 tons; diameter: 1 m. 60; height: 1 m. 85; weight: 2,300 kg.; price: about 26,000 francs, not including cost of fitting on board; (b) triple separators—hourly capacity: 100 tons; weight: 3,000 kg.; price: about 66,000 francs, not including cost of fitting on board.

Italy.

The following types of separator are available in Italy:

(a) "Mejani" type, built by Zanazzo and Company, engineers, of Spezia; this may be had in the following forms:

Apparatus capable of cleansing 10 tons of bilge- or ballast-water per hour — price 7,000 lire;

Apparatus with a capacity of 20 tons — price 12,000 lire;
 Apparatus with a capacity of 30 tons — price 14,500 lire;
 Apparatus with a capacity of 50 tons — price 17,000 lire;
 Apparatus with a capacity of 80 tons — price 24,000 lire.

These prices do not include the cost of fitting the separator on board.
 The cost of fitting is about one-tenth of the price of the apparatus.

(b) "Bethlehem" type, built by the Tirreno Shipyards, Genoa:

Apparatus with a capacity of 25-30 tons per hour — price 18,400 lire;
 Apparatus with a capacity of 50 tons per hour — price 23,400 lire;
 Apparatus with a capacity of 75 tons per hour — price 26,100 lire;
 Apparatus with a capacity of 100 tons per hour — price 29,000 lire;
 Apparatus with a capacity of 150 tons per hour (two apparatuses coupled together)
 price 50,000 lire;
 Apparatus with a capacity of 200 tons per hour (two apparatuses coupled together)
 — price 55,600 lire.

These prices do not include the cost of fitting the separators on board.

(c) "Regia Marina" type. — This cleanses 30 tons of bilge- and ballast-water per hour, the total cost, including fitting on board, being 8,300 lire.

Netherlands.

The following types of oil separators are in use on various vessels of the Netherlands mercantile marine:

| Make of separator | Capacity per hour | Price |
|---|---|---|
| 1. "Turbulo" bilge and ballast-water oil separator, Deutsche Werft, Hamburg | { Type G I, 40 tons Type G II, 70 tons Type G III, 100 tons | In 1931: 3,400 florins 3,380 florins 3,000 florins Present price unknown. } inclusive of costs of installation |
| 2. "Comijn" separator, Separators, Ltd., Cunard Building, Liverpool | 150 tons | In 1931: 4,700 florins, with costs of installation. Present price unknown. |

* * *

The following countries have no available separators on the market: Union of South Africa, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Canada, Egypt (Ports and Lighthouses Administration), Estonia, India, Irish Free State, Iceland, Latvia, Norway, New Zealand, Poland, Sweden, Czechoslovakia and Newfoundland.

6. LIST OF AVAILABLE SEPARATORS IN COMMERCIAL AND NAVAL PORTS.

United States of America.

None forwarded; however, reference is made to page 6 of the report by Chief of Engineers, United States Army, 1926, who expresses the opinion that "the most efficacious method of preventing oil pollution from vessels would be the installation on each vessel of an efficient separator through which all bilge- and ballast-water was run before discharge overboard". This reference also describes certain methods, other than separators, used in United States ports.

United Kingdom of Great Britain and Northern Ireland.

See lists attached to League Circular Letter (pages 6-10).

Spain.

In the probable event of there being no separator service or an inadequate one in Spanish ports, the Government considers that it would be very desirable to supply them with fixed or floating separator installations, since, apart from the benefits which would accrue to the ports themselves, it would be easier for shipowners to carry out the obligations imposed by the State, since they could choose between fitting separators on board or utilising the separator service of the State at a moderate charge.

Consideration should be given to the price of separators which, according to the information provided in the League document in question, varies in the case of separators of English manufacture from £130 for a capacity of 15 tons per hour to £475 for those with a capacity of

100 tons per hour. The Government remarks that the document does not state whether these prices include costs of fitting which would, as a rule, amount to from 4,000 to 6,000 pesetas; also that these figures clearly show that, in the case of new vessels, the obligation to fit separators would have no practical effect on their budget, and in the case of existing vessels, shipowners could easily meet this expense if they were given plenty of time to fit them.

France.

Separators in use in French naval ports:

| | Cherbourg | Brest | Toulon | Bizerta |
|---|--|-----------------------------|--|--|
| Tonnage | 28 m. × 5 m. 5 × 2 m. 75 | 28 m. × 5 m. 5 × 2 m. 75 | 22 m. × 4 m. 5 × 2 m. 2 | 22 m. × 4 m. 5 × 2 m. 2 |
| | Used as dumb lighter — Pumps for boilers and separating apparatus | | | |
| Machinery | Two electric centrifugal suction pumps fed by a generating plant with a 6 kw. engine | | | |
| Boilers and working pressure . . | 1 single boiler, carot type, at 8 kg./Cm. ² 500 | | | |
| Separating system | Pirbright method | Pirbright method | L.J. method of the American Device Corporation | L.J. method of the American Device Corporation |
| Capacity of separating system . . | 250 tons an hour | 250 tons an hour | 250 tons an hour | 250 tons an hour |
| Approximate purity of effluent after passage through the separating apparatus | 0.0001% | 0.0001% | 0.0005% | 0.0005% |
| Capacity of recovered oil storage tanks | 11 tons | 11 tons | 15 tons | 15 tons |
| Capacity of centrifugal suction pumps | 3 tons an hour | 3 tons an hour | 4 tons an hour | 4 tons an hour |
| Percentage of water in oil after passing through centrifugal suction pumps | 1% | 1% | 1% | 1% |
| Method of disposal of recovered oil | Supplied as fuel for all purposes. | | | |
| Source of mixture dealt with . . | Tanks of oil tankers and bilges and tanks of warships | | | |

Separators in use in French commercial ports: The port of Le Havre is apparently the only one in which separating apparatus is available. It includes a settling tank and a separator barge.

India.

The following particulars are furnished regarding the separator available at the port of Bombay:

| Port and owner | Size of vessel | Machinery | Boilers | System | Capacity | Oil recovered, storage capacity | Disposal | Source of mixture dealt with |
|-------------------|---------------------------------|--|---------|--|------------------------------|--|--|--|
| Bombay Port Trust | L. 63' B. 16' 6" D. 8' 6" | One 2½" centrifugal pump, motor driven, energy supplied from shore | Nil | Vessel discharging pumps mixture into barge; oil separated by gravity only | About 60 per hour of mixture | 40 tons of oil and water are in common compartment and oil scummed off as required | Into settling tanks ashore by pump, burned in shore boiler | Chiefly tanks of oil tankers; occasionally for ships in for repairs to oil bunkers |

Italy.

It appears that no separators are available in Italy that could be used in commercial ports. In the ports of Brindisi, Genoa, Spezia, Naples, and Taranto, the oil floating on the water is collected by means of rollers; but it is very probable that the roller system will shortly be combined with that of "Maone" (craft) fitted with separators in the naval ports, wherever this may be necessary.

In other ports (Leghorn, Venice, Trieste), there are special docks equipped for the sole purpose of the discharging of oil; in yet other ports, special provision has been made for protection against fire, and experiments have recently been carried out by the Genoa Harbour Board and the Azienda

dei Magazzini Meccanici at Naples in order to select a single type of apparatus for collecting liquid fuel in the harbour waters and to ascertain the cost of installing and working the plant.

In ports where there are refineries or establishments for distilling and treating mineral oils, special plant is provided to avoid the discharge of oily refuse into the sea during washing operations.

Netherlands.

There are the following shore installations at Rotterdam and Amsterdam:

| Port and owner of installation | Size and name of vessel | Method of separation | Capacity | Capacity of vessel | Use of separated oil | Purpose of installation |
|--|---|--|----------|--------------------|---|--|
| Amsterdam, "Nederland" Steamship Company | Tank lighter, 16 × 6 × 4 metres, with two oil compartments | Bilge water is pumped into tanks and oil is pumped from them into lighter | — | 2 × 30 tons | Oil is conveyed to incinerator and burnt | For removal of bilge- and ballast-water of vessels lying in the port |
| Rotterdam, N. V. Unitas | Two oil lighters, <i>Vulcanus I</i> and <i>II</i> , 95 and 150 tons | Oil and condensed steam is sucked by combined steam and vacuum hoses from tanks to lighters and passed through cloth filters | — | See column 2 | Sent to Société Chimique, Selzaate, Belgium, for further conversion | Cleaning of tanks and tankers |
| Rotterdam, Wilton-Feijenoord Shipyard | Oil lighter, 280 tons | For storage of oil from ships' tanks during repairs; oil pumped back by Turbulo separator | Unknown | See column 2 | Returned to ships' tanks | Temporary salvage of oil from ships' tanks during repair |

* * *

The following countries have no available separators in commercial and naval ports: Union of South Africa, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Canada, Denmark, Egypt (Ports and Lighthouses Administration), Estonia, Irish Free State, Latvia, New Zealand, Poland, Sweden, Czechoslovakia and Newfoundland.

7. REPRESENTATIONS REGARDING INADEQUACY OF PORT FACILITIES OF THIS KIND.

(a) *In the Country in Question.*

United Kingdom of Great Britain and Northern Ireland.

The bodies representative of shipowners in the United Kingdom state that it appears that, in general, the supply in Great Britain and Northern Ireland of port facilities of the kind mentioned in this question is not inadequate under present circumstances. They, however, suggest that if a "zone" of fifty miles were strictly enforced, the supply of such facilities in this country would have to be improved, and state that this would, in their opinion, undoubtedly be the case in the event of the adoption of a "zone" of 150 miles. They submit, as a general proposition, that all ports in Great Britain and Northern Ireland frequented by foreign-going oil-burning vessels should be equipped with suitable facilities.

Canada.

Shipping interests, protesting against the compulsory installation of oil separators on ships, claim that any such facilities should be provided by the port authorities.

Egypt.

Faculty of Science, Egyptian University. — See 3.

France.

In France, the absence or inadequacy of separating plant, both on board and ashore, would seem to be one of the sources of the difficulties that vessels meet with in respect of the discharge of their polluted water.

At Dunkirk, polluted water is discharged in the roadstead, and shipowners have complained of consequent delays and difficulties in entering the port without cargo.

The same difficulties have arisen in a case in which a tanker, having brought in a cargo of oil products, has been obliged to reload another cargo after having evacuated its residues in the open sea.

At Rouen, protests have been received as the result of observations made and official charges brought for discharging polluted water.

The same has happened in several other French harbours, particularly in the district of the Etang de Berre.

The best solution, in the opinion of the French Government, would be to make the practice of having oil-separating barges in harbours general, and even compulsory; seeing to it, however, that the fees charged for the use of such barges are as low as possible.

Norway.

It would no doubt be useful if ports in Norway and elsewhere were equipped to permit ships to discharge oil and oily mixtures. This question is especially important for ports which carry out ship repairs on a large scale.

* * *

The following countries reported that no representations had been made: Union of South Africa, United States of America, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Egypt (Ports and Lighthouses Administration), Spain, Estonia, India, Irish Free State, Iceland, Italy, Latvia, New Zealand, Poland, Sweden and Newfoundland.

(b) *In Other Countries.*

United Kingdom of Great Britain and Northern Ireland.

As regards foreign ports, the bodies representing shipowners state that it appears that there are few, if any, facilities of this kind in them, with the possible exception of some American and north European ports. They suggest that such facilities should be made available at any rate at the principal oil-fuel bunkering ports and at ports where the discharge of oily ballast-water into the harbour is prohibited. They are of opinion that the charge for the use of a separating barge or other facility in ports should be borne by the vessel using it, and should not be included in general port charges.

* * *

The following countries reported that no representations had been made: Union of South Africa, United States of America, Australia (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia), Bulgaria, Denmark, Spain, Irish Free State, Italy, Norway, Poland and Newfoundland.

8. SCIENTIFIC OR OTHER EVIDENCE REGARDING EXTENT OF OIL POLLUTION AT SEA.

United States of America.

Attention is directed to "Report on Oil Pollution Experiments: Behaviour of Fuel Oil on the Surface of the Sea", by Associate Engineer, Bureau of Standards, Department of Commerce, 1927; Summary (page 28):

" 1. Observations were taken on the behaviour of fuel oil, and fuel-oil sea-water mixtures on the surface of the sea in Hawaiian and North Atlantic waters.

" 2. Dry fuel oil and fuel oil containing dispersed sea-water behaved quite differently when floating on the sea. This appeared to be due to the great difference in the rate at which these two materials filmed out to an infinitesimal thickness.

" 3. Oils discharged from oil-burning and oil-cargo ships at sea usually contain dispersed water. The three most valuable experiments made were made with such mixtures that had been prepared in the ship's tank previous to discharge.

" 4. In the experiments made, the oil had practically disappeared from the surface of the sea in a length of time varying from 53 to 117 hours.

" 5. Under the conditions existing during two of these experiment some of the oil drifted fifty or more miles.

" 6. In general, the results obtained during the North Atlantic experiment appeared to correspond with those observed during the Hawaiian work.

" 7. These results cannot be assumed to hold true for all oil discharged at sea unless due allowance is made for the condition of the discharged oil, the wind, currents and the surface condition of the sea.

" *Conclusion.* — Dependent upon the kind and amount of oil discharged, its kind and condition when discharged, the area into which it is discharged, the prevailing wind and currents and the average surface condition of sea, it is concluded from these experiments that oil-water mixtures commonly discharged from oil-burning and oil-cargo ships will film out to an invisible thickness within 100 hours from the time of discharge into the sea."

Australia.

New South Wales. — There is no evidence that any oil or any other matter discharged from ships at a distance of more than fifty miles ever returns to the coast, due to the direction of the coastal currents.

Western Australia. — In a State such as Western Australia, with its long coastline exposed to westerly weather and prevailing winds, it would be preferable if the international Convention established zones at least 150 miles in width in which no oil or oily mixtures shall be discharged.

United Kingdom of Great Britain and Northern Ireland.

Certain scientific investigations have been undertaken on behalf of the United Kingdom Government. They are not yet complete and it is hoped that a full account of them will be available for the League before the end of this year. While complete information is at present lacking as to the distance to which oil may float at sea, it is unquestionable that quantities of asphalts gain access to the sea through discharge of oil and ballast-water from ships. The asphalts tend to concentrate into lumps which ultimately drift inshore into sheltered bays and estuaries. It has been suggested that oil dumped at sea disappears slowly by evaporation, but the Government are advised that experience in the United Kingdom shows that not more than 10% of fuel oil evaporates at ordinary temperature. It has also been stated that oil dumped at sea is slowly destroyed by oxidation and by bacterial action, but there is no evidence in support of this statement. Moreover, the investigations show that, even if the discharged oil were to film out so thinly as to be invisible to ordinary observation, it would nevertheless probably still exist, as oil may be in suspension as small globules without showing as a film.

Generally, the Government are advised that while no general rule can be laid down as to the distance off shore at which oil and oily mixtures may safely be discharged from ships, it is probable that in any area up to a distance of 150 miles from land where the resultant of current, tidal stream and drift due to wind happens to produce a general on-shore draft, discharged oil and oily mixtures will eventually reach coastal waters. Nevertheless the Government are advised that a "zone" of 150 miles would probably result in a considerable reduction in the evils of oil pollution, but that a "zone" of 50 miles would be far less efficacious, except where the wind and current were such as to prevent the oil from drifting directly on shore, while a "zone" of any less distance would be of little use.

Newfoundland. — There is no evidence that oil and oily mixtures pollute the coasts after travelling, in certain conditions, distances more than 50 and even 150 nautical miles.

Canada.

Reports have been received by the Department of Marine of the presence of oil on the surface of harbours and bays in the gulf of and river St. Lawrence on the Atlantic coast, and in what is known as the inside passage between the islands and the mainland from Vancouver to Alaska, on the Pacific coast. This oil was known to extend for some 50 miles or more from the original location of the pollution, and it has even been claimed that the oil has travelled in some cases a much greater distance. Only in the case first mentioned, however, is there any authentic evidence. In this case, an oil tank situated on a pile wharf in a Pacific harbour collapsed, spilling several hundred gallons of oil into the water, and quite extensive pollution was noticed some 50 miles from the harbour, resulting in the death of great quantities of wild fowl and fire menace to wooden pile structures.

Denmark.

No scientific investigations have been made but it has been found by experience that oil or oil pollution remains floating for a longer period in winter, and the temperature no doubt permits

the oil to drift for a long distance, probably more than 150 nautical miles, before it evaporates or is absorbed by the water.

Egypt.

Faculty of Science, Egyptian University. — Evidence is produced to indicate that oil, after a discharge of several thousand tons of oil in the Red Sea, was detected on the surface of the sea 500 miles away. No effect, however, on the pearl industry was noticed, or on other sea life. The desert bordering the east Egyptian coast is contaminated by oily substances throughout its whole length (especially immediately so the south of Ghardaqua), but it is impossible to determine if this is due to (a) natural oil outpourings, (b) the discharge of ships proceeding from Suez to the Strait of Bab-el-Mandeb, or (c) the loading of oil by ships at Ghardaqua. Because of the desert nature of the coasts and the sparsity of birds the effects are not serious. Furthermore, it is not improbable that the effects of oil discharge are less persistent in warm than in cold waters.

Spain.

Nothing definite can be said on this point. It appears logical to suppose that, after travelling 150 miles, patches of oil would be so tossed about and broken up that their effect on the coast would be very small; their exposure for a long time to the light and heat rays and especially the chemical rays of the sun might perhaps cause the volatilisation of some of their components and the dissolution, precipitation or suspension of the remainder, which would be neutralised by the effect of the sun's rays and the chemical substances contained in the water. Should this not be the case, it would be found that, in the course of time, oil patches would increase to such an extent that they would form a thin film covering the whole surface of the sea; and since it has been found that in weak concentration oil has no harmful effects on fish, shellfish and crustaceans or for the zooplankton or phytoplankton, it might be considered beneficial owing to its calming effect on waves in big storms; such an increase and generalisation of oil patches has not, however, been observed. In order to make definite assertions on the subject, it would be necessary to make repeated experiments of long duration and covering great areas, in addition to careful research work in the laboratory and in aquaria.

France.

From information previously gathered, it may be taken that oil drifts for fairly considerable distances; as a result of complaints by local development societies of contamination at seaside resorts, it has been found that heavy-oil residues discharged by vessels at a considerable distance from the coasts have been carried ashore by inshore currents.

Nevertheless, as has been pointed out by the Director of the Fisheries Office, it would be too much to assert that the joint influence of winds and tidal currents can be felt at a distance greater than 50 miles; in the opinion of M. Le Danois, it would be possible to conclude that, in certain districts, such drifting can only take place over a maximum distance of about 30 miles. The strongest tidal currents generally run at 4 miles an hour during a period not exceeding an average of 7 hours in the same direction—that is to say, once the distance of 28 miles has been covered, the movement is reversed, carrying the sheets of residuary matter back in the opposite direction.

Obviously, in view of the various circumstances that may arise, it is impossible to lay down a uniform rule on this matter; but it is possible to share the opinion of the Office of Fisheries, that the amount of damage done by residues discharged at sea depends on the distance they drift under the influence of currents.

Irish Free State.

There is no available evidence that oil has reached the coasts of the Irish Free State after travelling distances as great as those mentioned.

Italy.

From the enquiries carried out through the principal institutes concerned with marine biology, oil discharged from ships at sea does not appear to be carried any great distance by current or to have polluted Italian waters.

This is due to the fact that, in the Mediterranean generally, there are no big continuous currents such as are found in the ocean, and, as regards Italian waters in particular, the currents in the straits, which are the only ones of any importance, have an ebb and flow which tends to disperse the oil floating on the water rather than to send it in any one direction.

The Italian Government considers that since, for the present at all events, the Mediterranean countries are not suffering any serious damage from the pollution of the water, it would be expedient to simplify the Convention by establishing the limit of territorial waters—six miles—as the prohibited zone for the discharge of polluted water.

Sweden.

One case showed that oil had travelled 15 kilometres.

* * *

The following countries stated that they did not possess scientific or other evidence in this respect: Union of South Africa, Australia (Queensland, South Australia, Tasmania and Victoria), Estonia, India, Iceland, Latvia, Monaco, Norway and Poland.

9. OTHER OBSERVATIONS OF GOVERNMENTS.

Union of South Africa.

While prepared to co-operate in measures, the Government states that oil pollution is negligible in South African waters.

United States of America.

The Government observes that the question as presented refers to "oil and oily mixtures discharged at sea". The information transmitted by this Government "relates to the effects of oil of whatever source. Pollution of coastal waters is attributable to oil disposed of by shipping and land sources. Measures for the control of pollution from land are under study in the United States. No information is now available to the American Government to indicate what percentage of oil appearing in coastal waters may be attributed to pollution from land plants and other land sources, and to oil discharged at sea by ships."

Australia.

As this matter mainly concerns the State Governments of Australia the questionnaire was referred to them (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia).

Tasmania. — Burnie: The Marine Board, lacking evidence, was unable to answer the questionnaire. Despite continual observations over a considerable period no pollution has been detected. King Island: The Marine Board is prepared to adopt the recommendations made by the Permanent Committee of the Australian Harbour Authorities in this matter.

United Kingdom of Great Britain and Northern Ireland.

See last paragraph under 3.

Canada.

The Department of Marine believes that the best means of prevention of oil pollution is to be obtained through an international convention, modelled on the Washington draft Convention, which will fix limits from the coast line of territorial waters within which the discharge of oil-polluted water from ship's bunkers and ballast tanks, or from any other source, will be prohibited, unless it may be necessary, in the event of shipwreck, to calm the waters by such means, to assist life-saving efforts.

China.

Very few ships, whether Chinese or foreign, carry or use oil; no complaints have been received of oil pollution, oil and oily water at present being discharged outside territorial waters.

Free City of Danzig.

Although, in view of the observations advanced by the Free City of Danzig (see 3), it seems questionable, in the opinion of the Government, whether this matter calls for international regulation, the Government of the Free City is prepared to accede to any international agreement adopted by the leading maritime countries.

Egypt.

Coastguards and Fisheries Administration. — While no complaints as to deleterious effects on fisheries have been received, the Egyptian Government believes that such effect is possible in the future. It considers that a convention should be established to prevent the pollution of the sea by the discharge of oil by merchant and naval vessels.

Spain.

The Government considers: (a) that an international conference should be summoned of all the countries interested in solving this problem, to endeavour to draw up an international Convention on the basis of the work already done in this connection by the Communications and Transit Organisation at Geneva; and (b) that a Commission should be appointed consisting of a representative of each of the Inspectorates of Navigation, Fisheries and Naval Construction to carry out whatever studies may be considered necessary in this connection, so as to be able to advise with a full knowledge of the facts on the line of action to be followed by Spain at the above-mentioned conference, and to pursue this line of action when the time comes.

Estonia.

During the past fifteen years, there has only been one case of oil pollution in the port of Tallinn; no pollution of the coast has been observed.

Lithuania.

The Government, in the absence of oil pollution in Lithuanian waters, did not reply to the questionnaire but declares itself ready to accept the eventual recommendations of the Transit Organisation.

New Zealand.

The New Zealand Government is of opinion that, if the zone system meets with the approval of Members of the League of Nations, a limit of fifty miles would be suitable for the coast of New Zealand generally. It is, however, considered that such an arbitrary limit would impose hardship in the case of certain types of coastal ship whose requirements could be adequately met, without danger of pollution of waters, by the prescription of dumping grounds at lesser distances than fifty miles in places where there would be no chance of oil reaching the coast.

Netherlands (and Colonies).

The Government points out that it is not necessary to include in the future Convention regulations covering *all* oils and oily mixtures.

Poland.

No oil pollution having been observed, there is no evidence of deleterious effects. The Polish Government is in favour of an international Convention prohibiting the pollution by oil of maritime waters and fishing banks.

Sweden.

The Government recommends, for the time being, a Convention on the lines of the draft Washington Convention.

LEAGUE OF NATIONS

(Communicated to the Council and the Members of the League).

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Geneva, August 1st, 1935.

ADVISORY AND TECHNICAL COMMITTEE FOR
COMMUNICATIONS AND TRANSIT.

PERMANENT COMMITTEE FOR TRANSPORT BY RAIL.

REPORT OF THE COMMITTEE ON ITS EIGHTH SESSION,

held at Geneva from May 28th-31st, 1935.

The Permanent Committee for Transport by Rail is composed as follows:

M. R. HEROLD, District Director of the Swiss Federal Railways (Chairman).

M. M. CASTIAU, Secretary-General of the Belgian Ministry of Transport.)

M. C.M. GRIMPRET, Vice-President of the General Bridges and Highways Board and of the Supreme Public Works Council of France.)

M. G. SINIGALIA, formerly Chief Inspector and Administrative Adviser of the Railways of the Kingdom of Italy.)

Bureau.

Sir Francis DENT, formerly Chairman of the Railways Committee of the Second General Conference on Communications and Transit, ex-Managing Director of the South Eastern and Chatham Railway.

Dr. H. GRÜNEBAUM, Ministerial Counsellor at the Austrian Federal Ministry of Commerce and Communications.

M. A. KRAHE, Bridges and Highways Engineer (Spain).

M. F. MOSKWA, Head of Division at the Polish Ministry of Communications.

M. E. SPELUZZI, Engineer (Argentine Republic).

Dr. CHING-CHUN WANG, M.A., Ph.D., LL.D., representative of the Chinese Ministry of Railways and Director of the Government Purchases Board in London.

Colonel T.A. HIAM, former Assistant to the President of the Canadian National Railways.)

M. Albert REGNOUL, Honorary Assistant Director of the Paris-Lyons-Mediterranean Railway Company.)

) Technical
) Advisers
) assist-
) ing the
) Chairman.

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All the members of the Committee were present, with the exception of Sir Francis DENT, Colonel HIAM, M. SPELUZZI and Dr. CHING-CHUN WANG, whose place was taken by M. N. LOU.

The following also took part in the Committee's proceedings:

M. J. DAVID, Section Counsellor at the Czechoslovak Ministry of Railways, present in an expert capacity;

M. E. MELLINI, Chairman of the Special Committee for the study of Signals at Level Crossings, Chief Railways, Tramways and Motor Traffic Inspector of the Kingdom of Italy.

In addition, the following were present in an advisory capacity:

M. COLOMB, Assistant Director of the Central International Railway Transport Office at Berne;

M. C. PADER, Assistant Secretary-General of the International Railway Union, Paris.

Secretariat: M. J.L. METTERNICH, Secretary of the Permanent Committee for Transport by Rail.

* * *

1. TWELFTH SESSION OF THE INTERNATIONAL ASSOCIATION OF THE RAILWAY CONGRESS, HELD AT CAIRO IN JANUARY 1933.

A brief summary of the oral report made to the Permanent Committee, containing more particularly the text of certain conclusions adopted by the Cairo Congress is appended (Annex 1).

As the result of this report, the Committee considered the question whether the Communications and Transit Organisation should not set on foot an enquiry regarding the problem of competition between transport by rail and motor transport. The Committee recognised that this question undoubtedly had an international aspect, that it was of the greatest importance and of real urgency, not only from the point of view of the railways, but also of the whole structure of national organisation in transport matters. The Committee did not, however, overlook the fact that, for the time being at least, the solution of this problem was dependent upon factors of an eminently national character and that, at the present stage, when the terms of the question were still rapidly changing, it would be difficult, if not impossible to do anything more than adopt very general conclusions of no great practical importance.

After a discussion, the Committee adopted the following resolution:

"The Committee,

"Having heard its Secretary's report on his mission in connection with the twelfth session of the International

Association of the Railway Congress held at Cairo in January 1933;

"After an exchange of views with reference to the Secretary's communications regarding the question of competition between rail and road:

"Considers that this question, the terms of which are still rapidly changing and which, together with an international aspect, also has features of an eminently national character, has not yet reached the stage at which a thorough examination could be undertaken from the international point of view with reasonable prospects of success; and

"Invites the Secretariat to follow closely the development of the problem and to bring the matter before the Committee as soon as it deems it desirable."

2. SIGNALS AT LEVEL-CROSSINGS.

The Committee took cognisance of the explanations supplied by M. Mellini, Chairman of the Special Committee for the Study of Signals at Level-crossings, who referred, amongst other things, to the fact that the Road Congress held at Munich in September 1934 had taken note, unofficially, of the conclusions adopted by the Special Committee under date of August 25th, 1934 (see document C.C.T./P.N./5 of May 15th, 1935, pp. 5-9). As a result, the Congress completely modified its own conclusions. The following recommendation which was adopted at Munich shows how far the railways and road users are in agreement on the subject:

"The execution of the resolution adopted by the International Railway Congress held at Cairo in 1932 would mark an important advance, particularly if an international convention could be concluded providing for uniform signals at unguarded level-crossings in all countries. The Congress expresses the hope that the resolution adopted on August 25th, 1934, by the Special Committee set up by the League of Nations to study this question should as soon as possible be submitted to an international conference."

The Permanent Committee, before going into the detail of the Special Committee's report, examined the following questions:

(a) Should uniform rules be introduced as regards the problem of the distance at which railway lines should be visible to road users?

The Committee recognised that an international formula would be difficult to devise and that, furthermore, the Special Committee's report was already sufficiently specific on this point for the Governments to know what they should do.

(b) Is it necessary that light signals in the various countries should be standardised in the matter of the intensity of the light and the breadth of road surface illuminated?

The Committee took the view that this question should in due course be taken into consideration by the competent bodies of the Transit Organisation. It is, moreover, to some extent related with the question of the visibility of reflectors at night, which in its turn is largely determined by the strength of headlights and their height above the ground.

(c) In order to avoid confusion, should not a special advanced sign - consisting of a triangle bearing some device other than the locomotive or crossing gate - be used for level-crossings provided with automatic light signals?

The Committee took note of M. Mellini's statement to the effect that the Special Committee had come to the conclusion that it would be preferable that road signals should not be too numerous, the locomotive device being a clear symbol signifying that the level-crossing was not closed by means of gates and being therefore sufficient to put road users on their guard. This statement was approved by the members of the Committee.

After careful examination of the details of the Special Committee's report, the following resolution was adopted:

"The Committee,

"Having taken cognisance of the report of the Special Committee for the Study of Signals at Level-crossings of May 14th, 1935:

"Thanks the Special Committee for its very full and careful report;

"Endorses the Committee's conclusions and recommendations subject to a few amendments in matters of detail reproduced hereafter; and

"Notes the urgency, in the interests of safety, of the introduction of standard rules in regard to the matter dealt with by the Committee and requests the Advisory and Technical Committee for Communications and Transit to take such steps as may be necessary to secure, in the near future, a practical solution of this problem on the widest possible international basis.

"Amendments to the Report of the Special Committee for the Study of Signals at Level-crossings, proposed by the Permanent Committee on Transport by Rail.

"Chapter I, A.1, paragraph 2.

"The Permanent Committee, considering that, in the opinion of the Special Committee, the placing of reflectors along the rim of the triangle is only necessary when the road traffic in question continues during the night, suggests that this idea should be brought out in the text itself. The words "during the night" should therefore be

inserted after the phrase 'On roads with heavy motor traffic'.

"B.5.

"For the same reasons, the words 'during the night' should be inserted after 'On roads with heavy motor traffic'.

"B.5a.

"So as to avoid any possibility of misunderstanding as regards the meaning of the flashing lights in the event of the signals being out of order, the Committee suggests the addition of a footnote to the following effect:

"'Every precaution should be taken to avoid the possibility of confusion between the colours in the event of an accident to the signal.'

"C.2.

"So as not to oblige the authorities responsible for the erection of warning signals to incur expenditure on account of points at which the railway crosses paths or other thoroughfares on which there is no motor traffic whatsoever, the words 'if used by motor traffic' should be inserted after 'Such level-crossings'.

"C.4.

"For the same reasons, it is suggested that the phrase 'in respect of level-crossings used by motor traffic' should be inserted after the word 'Furthermore'.

"Chapter III, 1.

"The Permanent Committee considers that the present wording is somewhat too peremptory and should be amended to read as follows:

"'The Governments should take all necessary steps to see that, wherever possible, the employee responsible for operating the gates is warned of the arrival of trains so as to ensure

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"Apart from these substantive amendments, the Permanent Committee suggests the following amendments on points of drafting:

"Chapter I, A. 5.

"' Road users not yet on the level-crossing must stop before reaching it. Road traffic already on the level-crossing must clear it speedily; gates must be closed slowly enough to enable such traffic to clear the crossing.'

"A. b.

"This amendment does not affect the English text.

"Chapter II, paragraph 1.

"Substitute the words 'in individual cases' for the words 'in exceptional cases'. The third sentence would thus read as follows: 'As regards their use, however, certain simplifications might be allowed in individual cases by the Governments of the respective countries.'

"Chapter III, 3.

"The amendment to this passage does not affect the English text."

3. FACILITIES TO BE GRANTED FOR THE TRANSPORT OF CASES CONTAINING SAMPLES.

The Permanent Committee, to which had been submitted the results of the enquiry carried out by the International League of Associations of Commercial and Industrial Travellers and Representatives dated July 28th, 1934 (see document C.C.T./V.F./112 of August 31st, 1934), was of opinion that this was a question, in the first place, for the various railway administrations and, in the second place, for the International Railway Union. It was informed by the representative of the International Railway Union, to which the same request had been submitted, that the Union had placed the question on the agenda for the next session of its First Committee. A report had been drawn up by the Swiss Federal Railways. That report came to the conclusion that, in view of the great diversity of the reductions allowed by the various systems, there could be no question of their standardisation and also made the following twofold recommendation which will be submitted for approval to the Managing Committee of the International Railway Union, at its session in November 1935:

When the railway administrations agree to introduce an international scale of charges they will embody therein the reductions which the various countries allow in respect of cases of samples; furthermore, they will facilitate the application of the present reductions by taking as a basis the international identity card (in accordance with the model annexed to the Convention relating to Customs Formalities of November 1923). The enquiry carried out by the International League would thus be acted upon in the matter in which commercial travellers are most interested.

While noting this communication by the representative of the International Railway Union, the Permanent Committee took the view that it was not qualified to take any further action in the matter. In this connection, it adopted the following resolution, which will be transmitted to the Economic Section by the Secretariat:

"The Committee,

"Having taken cognisance of the enquiry carried out by the International League of Associations of Commercial

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and Industrial Travellers and Representatives of July 28th, 1934, and

"Considering the matter calls for no action on its part:

"Decides to remove the question from its agenda."

4. DRAWING UP OF STANDARD CONVENTIONS ON FRONTIER TRAFFIC BY RAIL.

At its fifteenth session (September 1930), the Advisory and Technical Committee adopted a resolution referring the question raised by M. Grünebaum, at that time a member of the Committee, with regard to the framing of standard conventions on frontier traffic by rail to the Permanent Committee for investigation.

The question having thus been placed upon the agenda of the present session of the Permanent Committee, M. Grünebaum drew up a memorandum (see document C.C.T./V.F./111 of June 2nd, 1934) making a preliminary survey of the problem while at the same time bringing out the difficulties standing in the way of international regulation of frontier railway crossings and connections.

On June 2nd, 1934, the Secretariat communicated this memorandum to the members of the Permanent Committee, while at the same time requesting them to be good enough to transmit to it all relevant treaties, etc., concluded between States, together with any draft treaties, etc., of the same kind, stating if possible the reasons for which they had not yet been put into force.

The Secretariat methodically classified the documentation thus collected and, in a study of the juridical and administrative systems in force on the frontier sections of railway lines and at junction stations, endeavoured to enunciate the fundamental ideas and guiding principles thus brought to light.

This study was carried out under the direction of the Chairman of the Permanent Committee by a small committee consisting of:

M. R. HEROLD, Chairman,
M. J. DAVID,
M. H. GRÜNEBAUM,
M. A. REGNOUL,
M. G. SINIGALIA.

In the course of three meetings (December 18th - 20th, 1934, February 27th - March 5th, 1935, and May 27th, 1935), the above-mentioned committee thoroughly examined the problem in all its details and was thus able to form a very complete idea of the arrangements at present in force. The committee set out its findings and the considerations on which they were based in a report to the Permanent Committee. That report, together with the study to which it refers, are reproduced in document C.144.M.75.1935.VIII of June 1st, 1935.

The Permanent Committee approved both the study and the report. Like the small committee, it was of opinion that the framing of a standard convention was not at all to be recommended; at the same time, it considered it desirable that the small committee should be asked to draw up a general schema enumerating all the questions which must be taken into account when a convention was concluded.

Acting upon the instructions of the Permanent Committee, the small committee, assisted by M. Moskwa, attached to its main report a general schema to be taken as a basis for the framing of any future conventions.

The following is the resolution adopted by the Permanent Committee:

"The Committee,

"Having regard to the mandate conferred upon it by the Advisory and Technical Committee for Communications and Transit at its fifteenth session, the said mandate relating to the examination of the possibilities of drawing up standard conventions on frontier traffic by rail;

"Having regard to the study carried out by the Secretariat on the basis of documentation collected in a large number of countries concerning the juridical and administrative systems in force on frontier sections of railway lines and at junction stations;

"Having regard to the proceedings of a small committee in connection with the Secretariat's aforesaid study, which proceedings resulted in the submission to the full Committee of a general report dated May 27th, 1935;

"Having regard to the conclusions of the said report to the effect that, in view of the diversity of the essential circumstances governing individual cases, the competent authorities should not recommend any standard convention whatsoever, but should confine themselves to putting forward a general schema which might be used as a basis for the framing of conventions and to stating the essentials of the question and the practical considerations by which it is governed;

"After discussion:

"Approves the above-mentioned study and report and endorses their conclusions;

"Transmits the said documents to the Advisory and Technical Committee; and

"Expresses the hope that they may as far as possible be used as a means of bringing about the agreements still lacking and, in general, of facilitating the solutions most in keeping both with the common interest and the interests of the railway administrations."

5. CONFERENCE FOR THE REVISION OF THE BERNE INTERNATIONAL
CONVENTIONS (C.I.M. and C.I.V.), OPENED AT ROME ON
OCTOBER 3rd, 1933.

A summary of the oral report made to the Permanent Committee by its Secretary with regard to the Revision Conference is appended (Annex 2).

The representative of the Central Office pointed out that Sweden had deposited instruments of ratification in respect of both Conventions, and that there was every reason to believe that the German and Italian Governments would do likewise in the near future. The Conventions had, moreover, already been approved by the French Chamber of Deputies. He added that the Convention concluded at Rome in 1933 with regard to the establishment of the international transport of goods consigned by rail with way-bills to order had been signed by eleven States and adhered to later by a twelfth.

After an exchange of views, the following resolution was adopted:

"The Committee,

"Having taken note of its Secretary's communications regarding certain questions dealt with by the Conference for the Revision of the Berne International Conventions (C.I.M. and C.I.V.) opened at Rome on October 3rd, 1933:

"Expresses the hope that these Conventions, which have hitherto only been ratified by a very small number of States, will also be ratified by the others as soon as possible, so as to enable the Governments concerned to come to an agreement regarding the date on which the new Conventions are to be brought into force;

"Regards it as particularly desirable that the foregoing recommendation should be carried into effect, since the entry into force of the new C.I.M. will form the indispensable legal basis for transport with negotiable transport documents, a question to which the organs of the League of Nations have attached particular importance for some years past (see the resolution adopted by the Fourth General Conference on Communications and Transit of October 22nd, 1931, the resolution adopted by the Council of the League of Nations on January 25th, 1933, and the resolution adopted by the Advisory and Technical Committee for Communications and Transit at its seventeenth session in June 1932)."

6. COMMUNICATIONS BY THE SECRETARIAT.

The Secretariat informed the Committee of the position with regard to ratifications of and accessions to the Convention and Statute on the International Régime of Railways, of the progress made in regard to the unification of transport statistics, and of the settlement of certain disputes submitted to the League of Nations since the seventh session of the Permanent Committee under Articles 320 and 304 of the Treaty of Saint-Germain-en-Laye and the Treaty of Trianon respectively (see Annex 3).

The Committee adopted the following resolution:

"The Committee takes note of the Secretariat's communications with regard to:

"The position in respect of ratifications of and accessions to the Convention and Statute on the International Régime of Railways;

"The progress of the work in respect of the unification of transport statistics;

"Certain disputes submitted to the competent bodies of the League of Nations under Article 320 of the Treaty of Saint-Germain-en-Laye and Article 304 of the Treaty of Trianon respectively."

REPORT ON THE TWELFTH SESSION OF THE INTERNATIONAL ASSOCIATION OF THE RAILWAY CONGRESS, HELD AT CAIRO IN JANUARY 1933, SUBMITTED TO THE PERMANENT COMMITTEE FOR TRANSPORT BY RAIL BY ITS SECRETARY.

The Advisory and Technical Committee for Communications and Transit adopted, at its seventeenth session in June 1932, a resolution under which it was decided that its Permanent Committee on Transport by Rail should be represented by the Secretary of that Committee at the twelfth session of the International Association of the Railway Congress, summoned to meet in January 1933 at Cairo.

In accordance with this resolution, the Secretary attended the Railway Congress, the inaugural meeting of which was held on January 19th, 1933, in the presence of His Majesty King Fuad I.

The Governments of the following States sent delegates to the Cairo Congress: Belgium, United Kingdom, Bulgaria, China, Czechoslovakia, Denmark, Finland, France, Germany, Greece, India, Italy, Japan, Netherlands, Norway, Poland, Portugal, Roumania, Spain, Sweden, Switzerland.

The very numerous administrations taking part in the Congress included the most important of every continent, both as regards length of lines and the number of officials and employees. Among the organisations members of the Association represented at Cairo, it will be sufficient to mention, in addition to the Permanent Committee on Transport by Rail of the League of Nations, the International Railway Union, the American Railway Association, the International Sleeping-Car Company, the "Mitropa" and the Railway Clearing-house.

The Congress then divided into five sections, namely:

- I - Track and works;
- II - Traction and material;
- III - Operation;
- IV - General;
- V - Economic and colonial railways,

in order to examine the documentary material collected on the questions appearing on the Congress's agenda.

Thanks to this very abundant documentary material, which was of considerable technical value, the discussions on the particular problems were much facilitated and many of the debates reached a high scientific level owing to the technical qualifications of the principal speakers.

Owing to the fact that two or three of the five sections always met simultaneously, the representative of the Permanent Committee was unable to attend all the discussions; but he endeavoured to be present at the meetings of the sections

whose agenda seemed to him to be of the greatest interest and importance to the work of the Communications and Transit Organisation. Thus, he attended in particular the meetings of sections I - Track and works; II - Traction and material; IV - General, so that he was able to follow closely the following questions:

- (1) Protection of level-crossings, taking into account the modern development of road traffic;
- (2) Application of scientific management to the railway services; share of staff in efficiency and profits;
- (3) Competition or combined transport by rail and air or by rail and road.

Protection of level-crossings.

The conclusions regarding this problem are reproduced as an annex to the report on the examination of the desirability of additional signals for level-crossings, submitted to the Permanent Committee on Road Traffic (see document C.384.M.192.1933.VIII, dated June 15th, 1933, pages 17 and following).

It will be remembered that, as a consequence of this report and of a resolution adopted by this Committee in connection therewith, a Special Committee was set up for the study of the question. The report of this Special Committee is on the agenda of the present session of the Permanent Committee on Transport by Rail.

Application of Scientific Management to the Railway Services. Share of the Staff in Efficiency and Profits.

On the basis of the three detailed reports which were submitted to it, and after discussion of this extremely complex problem, the Congress adopted the following conclusions:

1. The organisation of transport by rail is based on the general organisation of all means of transport, but in order to enable each party to cope with the traffic falling to its share, it is essential to establish equality of legal and fiscal obligations for all transporting agents.

This condition having been fulfilled, the desired harmonious co-ordination should be sought externally by arranging all possible liaisons between railways and other transporting agents (motor vehicles, mechanised river transport, aeroplanes), and should also be pursued internally in each service, system and group of systems in order to increase efficiency. It should, however, be noted that, while co-ordination may in certain cases lead to centralisation, the latter, both from the point of view of management and execution, has limits which are marked by various possibilities and contingencies.

2. The results to be expected from the efforts at organisation do not depend entirely on the railway systems themselves; to make these efforts really fruitful, it is necessary

that the administrative obligations to which these systems are subject and the regulations which govern them should be genuinely adapted to present economic conditions and to the increased technical possibilities of new appliances.

3. The object of modern organisation, such as it may now be conceived, must as far as possible be to leave automatic processes and effort to the machine, assigning, on the other hand, to human labour tasks involving some measure of initiative and judgment.

Such an organisation increases the personal safety of the staff either by the elimination of certain work involving particular risk or by the introduction of appliances protecting the workers from the consequences of human error.

Lastly, the organisation of labour, supplemented by the granting of bonuses on output or a share in the general profits of the undertaking, makes it possible to increase the remuneration of the staff.

4. The organs of command should have clearly defined powers as much simplified as possible. It will be necessary to reduce to a minimum the intermediaries separating them from one another or from the executive agents, so as to expedite the despatch of business by frequent and unhindered personal contacts.

In this connection, it is recommended as a means of ensuring good inter-service liaison that periodical meetings should be held between the officials responsible for the execution of different parts of the same task.

5. The executive organs should be given an opportunity of co-operating in the search for methods leading to greater economy and security. It is desirable, in view of the good results already achieved in this connection, to extend as far as possible the normalisation of material by reducing the number of types and by their standardisation, as well as by standardising parts and unifying the allowances made for parts in use.

The organisation of the different establishments and workshops should be conducted on the same lines by adapting the principles of expert labour - i.e., by developing the specialisation of staff; while at the same time leaving scope for initiative; indeed, the organisation of labour assumes a very similar aspect for all railway systems, and it might be useful for the latter to follow the work of national and international scientific management organisations.

In this connection, the improvements to be introduced in the working system would seem to consist on the one hand in the simplification of the executive operations themselves and on the other hand in the improvement of material. Lastly, a very important factor to be borne in mind as regards the efficient organisation of labour consists in the utilisation of personnel physically fit for the task entrusted to it; for this reason the extension of the psycho-technical examination already employed by a certain number of administrations should be recommended.

6. The foregoing measures with regard to the material conditions of organisation and preparation of labour appear to need supplementing in the moral sphere by seeking the confidence and co-operation of the staff, involving a spontaneous effort of collective good-will based on mutual esteem and the granting of equitable remuneration, taking due account of the work done and of the results achieved.

As regards the fixing of this remuneration, the system of bonuses which is already in use should be extended.

The ideal remuneration should consist of two elements: a fixed part and bonuses varying with the quality and quantity of the work done, the fixed part thus being supplemented in proportion to the efficiency of the individual.

These bonuses should first of all be introduced at the basis of the undertaking - i.e., for elementary operations and in such a way as to remunerate rapidly the effort of each individual, and particularly economies in time, execution and materials consumed, and the collective efficiency of each workshop.

7. The enquiry made shows that no administration really gives its staff a share in the profits of the undertaking.

Certain systems distribute among their officials sums calculated on the basis of the general results of operation or of the economies achieved, and some of them consider that favourable consequences appear likely to accrue. Nevertheless, this experiment being recent and being confined to a limited number of administrations, it is not yet possible to reach any conclusions on the subject.

8. As shown by the conclusions adopted by our Congress in 1930, after the examination of question 16 on its agenda, it is necessary for railway systems to have officials trained from the special and professional points of view and also from the general point of view.

The professional schools and the organisations of all kinds established by the railway systems to develop the instruction of their officials are therefore of great value to the efficiency of these systems, and their importance should not be under-estimated.

9. In order to promote feelings of confidence and security in the staff, the extension of social institutions is particularly desirable.

These measures, which go outside the scope of actual work, aim at maintaining the health of the official and his family and at assisting them even in the material details of their daily life. Their consequence is to produce employees more devoted to their tasks and more free from daily anxieties and are thus of the very first importance to the efficiency of the railway systems.

Competition or Combined Transport by Rail and Air or by Rail and Road.

The following conclusions, which reflect what was said in the reports and discussions, were adopted unanimously:

I. Rail and road.

1. The question of motor competition, which was very carefully examined at the Madrid Congress, is far from having yet been settled on the lines recommended in the Conclusions of 1930. These must therefore be maintained in their entirety, particularly as, according to the reports produced at the present session, the development of goods transport by road has been greatly increased by the improvement and extended use of motor-lorries. The consequences are as harmful to the big systems as to those of merely local importance.

2. In every country, the railways have been greatly handicapped in the efforts made to retain and increase their traffic by the inequality of conditions governing transport by road and rail. Since the earliest days of their existence, the railways have been subject to numerous legislative provisions concerning the precautions to be taken in the interests of safety, the conditions of transport, the power to impose charges and the publication of tariffs. This legislation was justified at the outset by the view that the railways enjoyed a virtual monopoly and that the public should be protected in different ways, and continues to be justified by the consideration that railways should serve the general interest.

3. The result is that the railway, which has heavy burdens, particularly in connection with the upkeep and improvement of its track, also has to bear taxes which are particularly heavy in certain countries and heavy obligations as regards transport and security, whereas motor undertakings are entirely free as regards the fixing of their time-tables and prices and the choice of traffic. They use this freedom by taking the cream of the most remunerative traffic of the railways, which will have the unavoidable consequence of obliging the latter, if they are to avoid ruin, to raise the rates at present applied to heavy goods or those of prime necessity, and this cannot fail to do great injury to the general economic system.

Public road transport undertakings also escape to a large extent the burdens and obligations of the railway systems and, in many cases, even those relating to the remuneration and labour of their staff. In some countries, they even enjoy great advantages as regards the application of the road police regulations and facilities for passing the Customs at the frontiers.

Nevertheless, the railways, like any other undertaking, are entitled to a fair distribution of obligations and burdens. While this idea of fairness cannot always be applied in the same manner, a tendency in this direction should at any rate be manifested in every country according to its special circumstances.

4. The statements submitted to the Congress indicate a certain number of legislative measures adopted in different countries with a view to establishing some degree of equality between the two means of transport.

Since then, steps of the same nature have been taken in certain countries or are on the point of being introduced in others.

It is clear that unregulated competition between land transport undertakings is extremely harmful and occasions economic losses and, further, that the low cost of certain methods of transport by road is more apparent than real, since the high cost of the roads is not borne equitably by road users, but falls on the community. In other words, the road transport industry is in this way subsidised by the taxpayer.

5. In the first place, the State must make the regulations imposed on the railway systems more elastic so as to enable them to modernise their methods in order to give the public the same advantages as motor traffic without their being obliged to resort to a rate war which would be disastrous to the general economy.

6. The condemnation of such a rate policy logically entails measures relating to public motor transport. The prevention of competition injurious to the general economic system of the nation, the maintenance of motor transport within the bounds of a normal use of the road, and the regulation of its organisation and circulation in accordance with the requirements of a public service, are measures which are not contrary to progress and which could be reconciled with the interests involved if direct agreements could be concluded between the railway systems and the public road transport undertakings.

Co-ordination would enable each mode of transport to fulfil its proper part for the good of the community, and the rôle of regulation would be a purely police one. But such agreements are generally rendered difficult by the scattered character of road transport undertakings and their independence.

The railway systems have nevertheless endeavoured everywhere to co-ordinate the two modes of transport. In countries like the United Kingdom, where the railway companies possessed no general powers to operate road services, these powers have now been obtained.

Generally speaking, it may be said that, either by means of road transport services operated by the railways direct or by agreements with the companies operating motor lines, the railway systems have endeavoured to co-ordinate the two services in such a way that:

(a) The one should become a tributary of the other, particularly in the case of passenger transport;

(b) That the transport of goods from door to door should be effected by the creation of well-organised services for collection and delivery at home.

7. The railway systems have continually taken steps to improve their organisation.

They have speeded up their passenger services. They have often utilised motor transport themselves. They show a tendency to generalise the use of rail-cars, constituting, in certain cases, an economic, speedy and comfortable means of transport.

Certain railway systems have not shrunk from large expenditure on electrifying lines with a heavy traffic and supplying them with an up-to-date signals system.

As regards the goods service, the railways have also speeded up transport a great deal and reduced the time taken for delivery. They have created door-to-door services.

They have taken up the use of containers.

They have given customers facilities for storage at goods stations.

8. In short, the railway companies must pursue the efforts they have been making to improve their methods of operation still further, but at the same time they must obtain from their Governments the support and guarantees which are necessary in consideration of the general interest.

The Congress accordingly adopts the following recommendation:

"Public rail services, constituting an instrument of national equipment which has retained its full value and performing an economic and social function the advantages of which extend to the whole community, have the right to secure from their Governments equality in regard to the legal and administrative treatment of all means of transport and the fiscal and other burdens imposed on them.

"Governments should also see that the means of transport should be co-ordinated and should do all in their power to bring about such co-ordination without further delay, with a view to the progress of the country as a whole."

II. Railways and Air Lines.

Air transport at the present stage does not assume the same competitive aspect.

Very broadly speaking, the aeroplane constitutes, such an improvement for very long distances, that the railway systems must continue to "do their best to ensure liaison with the air services.

There are, however, certain cases in which the State, owing to the subsidies which it grants to air services, should intervene in the fixing of transport prices in order to avoid competition with the railways.

In view of the great importance of the problem, the Congress has decided that annual reports should be submitted to the Permanent Commission in order to keep the members of the Association informed of any new developments through the Bulletin. The Permanent Commission will draw up a programme of the questions on which annual reports are required.

General questions and questions of Procedure.

With regard to these questions, it should be noted that the Congress has accepted the French Government's invitation to select Paris as the place of the next Congress. The period between sessions having been increased from three to four years by the Cairo Congress, the latter accordingly decided that the next Congress (thirteenth session of the Association) should be held at Paris in 1938.

Annex 2.

REPORT ON THE CONFERENCE FOR THE REVISION OF THE
BERNE INTERNATIONAL CONVENTIONS (C.I.M. and
C.I.V.) HELD AT ROME IN OCTOBER - NOVEMBER 1933,
PRESENTED TO THE PERMANENT COMMITTEE FOR TRANSPORT
BY RAIL BY ITS SECRETARY.

On the proposal of the Swiss Federal Government, the Communications and Transit Organisation was invited by the Conference for the Revision of the Berne International Conventions (C.I.M. and C.I.V.) to be represented ad audiendum at the said Conference. The Chairman of the Advisory and Technical Commission appointed for this purpose the Secretary-General of the Transit Organisation, assisted by the Secretary of the Permanent Committee on Transport by Rail, who was to act as his substitute in case of need.

The Conference met at Rome from October 3rd to November 23rd, 1933. Twenty-six European States (namely, all the signatories of the C.I.M. and C.I.V., except Portugal) were represented: viz., Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, the Free City of Danzig, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Liechtenstein, Luxemburg, Netherlands, Norway, Poland, Roumania, Saar Territory, Spain, Sweden, Switzerland, Turkey and Yugoslavia. In addition, the United Kingdom attended the Conference as an observer. Finally, the Central Office for International Railway Transport at Berne also took part in the Conference in an advisory capacity, and carried out the secretarial work.

The Conference appointed four Committees:

The First Committee was instructed to study the general questions, as well as final questions and the drafting of the Conventions. This Committee set up three sub-committees -

First Sub-Committee: Combined Transport;
Second Sub-Committee: Liability and Part III.;
Third Sub-Committee: Miscellaneous and Part IV;
as well as a Drafting Committee.

The Second Committee examined Articles 3 to 26 of the C.I.M.

The Third Committee examined Articles 3 to 26 of the C.I.V.

The Fourth Committee considered the following questions: waybills to order; privately owned wagons and express parcels. These questions, which were partly discussed in sub-committee, gave rise to considerable difficulty, since they have, so far, not been dealt with at all in the C.I.M. or the C.I.V.

The Conference had before it no fewer than 459 draft amendments to the C.I.M. and 137 draft amendments to the C.I.V. Owing to the length of the proceedings, the representatives of the Transit Organisation were unable to attend the whole Conference; they were obliged to limit their

attendance to the period during which questions of special interest to the Transit Organisation were under discussion.

Without any attempt to explain in detail the modifications to the Conventions which were accepted by the Conference, reference should be made, in connection with the C.I.M., to the changes effected in Article 6, §6(e) as regards designation of goods. In future, it will suffice, in order to describe the goods, to use the denomination descriptive of their nature which is current in trade. Henceforward, it will no longer be made a requirement for the application of a particular tariff that the description of the goods despatched should be in strict conformity with the denomination of the goods as it appears in the said tariff or tariff category. Goods must be charged for according to this tariff provided the description used by the consignor affords sufficient evidence, in current trade language, that the merchandise handed in for despatch is unquestionably that, or alternatively one of those, contemplated in the tariff whose application is requested.

Another really important modification was made in Article 12, §4, deleting the provision, which had so far been in force, that the consignor is responsible for any apparent defects of packing not noted on the waybill, in so far as evidence of such defects can be adduced by the railway. Similarly, the criterion of outward appearance as referred to in paragraph 1 of the same Section has been dropped. As in the past, the consignor thus remains responsible for the consequences ensuing from the absence of any packing or from its defects, but the onus of proof rests with the railway.

The right to modify the transport contract after despatch has been considerably extended.

As regards the question of liability for damage, certain new provisions have been adopted which operate in favour of the consignor. This applies, for instance, to consignments carried in open wagons, curtailment of time limit allowed, etc.

The point, however, which deserves special attention is Article 61 of the C.I.M., which contains special provisions for certain categories of transport. First among these is the question of the international running of privately owned wagons as settled in an annex to the Convention. Further, the conveyance of express parcels may be governed by appropriate tariffs whose special provisions must conform to an annex of the Convention. Finally, there is the question of consignments with negotiable transport documents, consignments to be delivered only against presentation of the duplicate waybill, the carriage of newspapers, the carrying of goods intended for fairs and exhibitions, the carriage of empty or full crates and the carrying of loading tackle, and of means of protection against heat and cold in the case of goods conveyed by rail, which may form the subject of special agreements between two or more States or be dealt with in appropriate clauses embodied in railway tariffs. Such agreements and tariffs may provide for certain conditions suitable for such transport and allow exceptions to the C.I.M., more especially in regard to the use of a transport document which may differ from the form laid down in the Convention.

Two questions deserve to be mentioned in the present report: namely, that of combined transport, in particular air-rail transport, and that of negotiable waybills.

1. The question of combined transport formed the subject of study by a special Committee appointed by the Committee for Communications and Transit, which examined the entire problem from 1926 to 1928. As regards combined transport between railways and aerial navigation, a report was adopted by the Committee and sent to the Governments in 1928 by circular letter, in order that the latter, when establishing combined transports, might comply as far as possible with the principles laid down by the League of Nations.

The second International Conference on Private Aerial Law, held in October 1929 at Warsaw, dealt with the problem and adopted the following provisions in Article 31 of the Convention for the Unification of Certain Rules Relating to International Carriage by Air:

"(1) In the case of combined carriage performed partly by air and partly by any other mode of carriage, the provisions of this Convention apply only to the carriage by air, provided that the carriage by air falls within the terms of Article 1.

"(2) Nothing in this Convention shall prevent the parties in the case of combined carriage from inserting in the document of air carriage conditions relating to other modes of carriage, provided that the provisions of this Convention are observed as regards the carriage by air."

The Revision Conference at Rome was obliged to respect these provisions, since the Warsaw Convention had come into force on February 13th, 1933. It therefore inserted in Article 2 of the provisions relating to combined transport a new paragraph (4), worded as follows:

"As regards international transport using both railways and transport services other than those defined in paragraph (1) above, (namely, regular automobile or navigation services), the railways may draw up, in conjunction with the transport undertakings concerned, tariff provisions applying a legal régime different from that of the present Convention, in order to take account of the peculiarities of each mode of transport. In this case, they may provide for the use of a transport document other than that provided for in the present Convention".

It is to be hoped that, in virtue of the provisions of the Warsaw and Rome Conventions, combined air-rail transport may develop very freely. The danger which might arise from the fact that railways, in conjunction with air carriage undertakings, may establish very varied provisions and that consequently an undesirable multiplicity of systems might result, does not appear to exist in fact, since the competent organs - namely, the International Railway Union and the International Air Traffic Association - have already made remarkable progress in the uniform regulation of the question.

It should, however, be pointed out that, as a result of the new provision of the C.I.M., not only may the air-transport undertakings obtain very great facilities in respect of the regulation of the question of responsibility, for which there might be some justification in view of the nature of this mode of carriage, but the rules regarding responsibility may also be changed in respect of carriage by rail. The question arises whether this exemption in favour of the railways is justified.

2. As regards negotiable documents, the special Committee of Enquiry into this question, the constitution of which was recommended by the Permanent Committee on Transport by Rail at its last session, was of opinion that the creation of such documents would be of great value for industry and trade for the following reasons:

(a) They would give the vendor all guarantees for the payment of the cost of the goods, since the purchaser could not claim the goods from the transport undertaking unless he held the negotiable document, which would only be handed over against payment of the cost;

(b) They would enable goods to be sold during transport, delivery being constituted by the transmission of the document to the purchaser;

(c) They would enable the holder of the negotiable document to obtain credit on the goods transported, and, in particular, to give this document as a guarantee for the bills which he issued.

The special Committee, at its meeting in November 1931, examined the proposals made to it by the International Chamber of Commerce and by the International Railway Union and reached definite conclusions.

In accordance with a resolution adopted by the fourth General Conference on Communications and Transit, held in October 1931, the Committee's report was sent to the Governments and to the Central Office for International Railway Transport at Berne. The fourth General Conference had, moreover, recognised the utility from the economic and commercial point of view of the creation of such a negotiable transport document for the international transport of certain goods by rail over certain routes.

The Council, at its session in January 1932, drew the attention of Governments to the importance of this problem, particularly for classes of transport subject to the provisions of the C.I.M., requesting them to examine it in the most favourable spirit and to take the necessary steps to enable the Conference for the Revision of the Berne Conventions to deal with this problem and to find an adequate solution.

The Governments of Italy, Austria, Hungary, Yugoslavia and Poland submitted identical proposals to the Rome Conference, aiming at the introduction into the C.I.M. of provisions relating to waybills to order. Other States proposed the creation of a negotiable transport document. The Conference, after long discussions, thought that the moment was

not favourable for drawing up fixed rules, but, under the new Article 61 of the C.I.M. mentioned above, it allowed the railways to introduce such a document into their reciprocal relations.

On the basis of this discretionary article, a special Conference was formed in addition to the Revision Conference. This Conference was attended by representatives of the following States: Italy (President), Austria, Hungary, Poland, Yugoslavia. The representatives of the Governments of Germany, Belgium and France were invited to attend ad audiendum. The Conference also invited representatives of the League of Nations, so that the special Conference might thereby benefit from the experience gained in this sphere in the League of Nations.

The special Conference drew up an agreement concerning the adoption of special provisions for the transport of goods despatched by rail with a waybill to order. This agreement remained open for the signature of any State until March 31st, 1934. As from August 1st, 1934, any State can accede to this Agreement. It will only come into force after being ratified by at least three States. Nevertheless, it can only come into force after the new C.I.M. of Rome has been put into operation. It will be registered with the League of Nations.

Lastly, the Rome Conference dealt with the question as to how it could accelerate the coming into force of the new Conventions. It recognised that the procedure hitherto followed for signature and ratification involves too much time, and in this connection it made the following recommendation:

"(a) That the States represented at the Conference, together with Portugal, take the necessary steps so that the Conventions adopted by the Conference may be signed in Rome before April 1st, 1934;

"(b) That the States signatories of the Conventions adopted by the Rome Conference proceed to ratification as early as possible, so that the Conventions may come into force not later than January 1st, 1935."

The first of these recommendations was realised, in the sense that the Conventions were signed within the prescribed period, by all the Governments of the States taking part in the Conference.

On the other hand, the second recommendation is far from having been realised. Indeed, only Austria and the Governing Commission of the Saar Territory had ratified the Conventions before December 31st, 1934. Consequently, the date of the coming into force of the Rome Conventions remains undetermined.

Annex 3.

SUMMARY OF DISPUTES REFERRED BY THE COUNCIL TO THE
ADVISORY AND TECHNICAL COMMITTEE FOR COMMUNICATIONS
AND TRANSIT SINCE THE SEVENTH SESSION OF THE
PERMANENT COMMITTEE FOR TRANSPORT BY RAIL.

Nagykikinda-Aradi-Helyierdekü Local Railway Company.

Petition of April 1929 submitted under Article 304 of
the Treaty of Trianon.

States with territorial interests: Roumania - Yugoslavia.

Referred to the Advisory and Technical Committee for
Communications and Transit by resolution of the
Council of August 30th, 1929 (fifty-sixth session).

Appointment of arbitrators by resolution of the Council
of January 22nd, 1931 (sixty-second session).

Friendly agreement signed on February 28th, 1931.

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South-east Hungary Local Railway Company (Delkeleti).

Petition of April 1929 submitted under Article 304 of
the Treaty of Trianon.

States with territorial interests: Roumania - Yugoslavia.

Referred to the Advisory and Technical Committee for
Communications and Transit by resolution of the Council
of August 30th, 1929 (fifty-sixth session).

Friendly agreement concluded in April 1931.

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Halas-Bacsalmas-Rygyicza Local Railway Company.

Petition of July 1929 submitted under Article 304 of
the Treaty of Trianon.

States with territorial interests: Roumania - Yugoslavia.

Referred to the Advisory and Technical Committee for
Communications and Transit by resolution of the Council
of January 13th, 1930 (fifty-eighth session).

Friendly agreement concluded in April 1931.

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Zsebely-Czakovar-Böka Local Railway Company.

Petition of July 1929 submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Roumania - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of January 13th, 1930 (fifty-eighth session).

Friendly agreement concluded in April 1931.

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Dravavolgy (Kisköszeg-Siklos-Barcs) Local Railway Company.

Petition of August 1929 submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Hungary - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of January 13th, 1930 (fifty-eighth session).

Friendly agreement concluded in April 1931.

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Local Railway Companies of the District of Gyula
(Gyulavideki-Helyi-Erdeku Vasut).

Petition of December 1929 submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Hungary - Roumania.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of May 12th, 1930 (fifty-ninth session).

Appointment of arbitrators on January 22nd, 1931 (sixty-second session of the Council).

Friendly agreement signed on February 28th, 1931.

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Zeltweg-Wolfsberg and Unterdrauburg-Woellan Railway Company.

Petition of July 15th, 1931, submitted under Article 320 of the Treaty of Saint-Germain-en-Laye.

States with territorial interests: Austria - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of January 25th, 1932 (sixty-sixth session).

Appointment of arbitrators by resolutions of the Council of May 26th and 30th, 1933 (seventy-third session).

Arbitral award given on May 12th, 1934.

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Barcs-Pakrac Railway Company.

Petition of November 11th, 1932, submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Hungary - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of January 24th, 1933 (seventieth session).

Appointment of arbitrators by resolution of the Council of January 17th, 1934 (seventy-eighth session).

Arbitral award given on October 5th, 1934.

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Radkersburg-Luttenberg Railway Company.

Petition of December 31st, 1932, submitted under Article 320 of the Treaty of Saint-Germain-en-Laye.

States with territorial interests: Austria - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of January 24th, 1933 (seventieth session).

Referred to the Permanent Legal Committee of the Communications and Transit Organisation by resolution of the Council of January 17th, 1934 (seventy-eighth session).

Report by the Legal Committee submitted to the Council on May 14th, 1934 (seventy-ninth session).

At the request of the petitioning Company, the Council has on several occasions adjourned the consideration of the question, since conversations with a view to the conclusion of a friendly agreement were taking place.

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Torontal Local Railway Company.

Petition of March 24th, 1933, submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Roumania - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of May 22nd, 1933 (seventy-third session).

The petitioning Company, on November 12th, 1933, requested that the procedure should be suspended for the time being, since friendly negotiations were taking place.

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Noskovci-Slatina-Nasice Local Railway Company.

Petition of August 11th, 1933, submitted under Article 304 of the Treaty of Trianon.

States with territorial interests: Hungary - Yugoslavia.

Referred to the Advisory and Technical Committee for Communications and Transit by resolution of the Council of September 22nd, 1933 (seventy-sixth session).

The examination by the Committee of Experts appointed by the Chairman of the Advisory and Technical Committee is taking place.

Geneva, October 26th, 1935.

LEAGUE OF NATIONS

COMMUNICATIONS AND TRANSIT ORGANISATION

POLLUTION OF THE SEA BY OIL

REPORT ON THE SECOND SESSION OF THE COMMITTEE OF EXPERTS
(October 21st to 25th, 1935)

AND

DRAFT CONVENTION RELATING TO THE POLLUTION OF THE SEA
BY OIL

The Committee was composed of the following :

- Mr. C. H. GRIMSHAW, Deputy Assistant Secretary, Board of Trade, United Kingdom of Great Britain and Northern Ireland, *Chairman* ;
- Mr. P. T. CULBERTSON, Assistant Chief, Division of Western European Affairs, Department of State, United States of America ;
- Colonel S. GIACCHETTI, Port Captain, Chief of Division, Mercantile Marine Department, Ministry of Communications, Italy ;
- Captain Y. ISHIKAWA, Engineer Commander ; assisted by M. K. NISHIMURA, Consul of Japan at Geneva ;
- Captain F. V. H. LAUB, General Manager of the Port of Copenhagen ;
- M. D. PAUST, Shipowner, Norway ;
- M. P. H. WATIER, Counsellor of State, Director of Navigable Waterways and Maritime Ports, Ministry of Public Works, France ; replaced by M. C. LEMOINE, Inspector-General of Roads and Bridges ;

..

Secretary : Mr. L. C. TOMBS, Member of the Communications and Transit Section.

INTRODUCTION.

On July 19th, 1934, the United Kingdom Government addressed a letter to the Secretary-General of the League on the subject of the pollution of the sea by oil. The report of the Second Committee of the fifteenth ordinary Assembly (1934) provided for an initial enquiry to be undertaken by the Communications and Transit Organisation on the understanding that, after this enquiry, the Organisation would convene experts belonging to various countries to study the problem more closely. The Chairman of the Advisory and Technical Committee for Communications and Transit invited experts from certain countries to study the question, and the first session of the Committee of Experts was held at Geneva from November 19th to 23rd, 1934.

On December 8th, 1934, the Secretary-General communicated to the Council that, in pursuance of the work of the Committee of Experts, the Communications and Transit Organisation recommended the conclusion of an international convention on this subject, and submitted to the Council a memorandum adopted by the Committee explaining the object of such a convention, and the advantages to be derived therefrom. The Council approved the conclusions of the memorandum and adopted the following resolution on January 11th, 1935 (eighty-fourth session) :

“ The Council,

“ Authorises the Communications and Transit Organisation to make all necessary preparatory studies with a view to facilitating the future conclusion of an international convention in regard to the pollution of the sea by oil.”

With a view to giving effect to the resolution adopted by the Council, and in accordance with the request of the Chairman of the Advisory and Technical Committee for Communications and Transit, the Secretary-General addressed on January 23rd, 1935, a Circular Letter, with a subjoined questionnaire, to States Members of the League and non-member States.

In the report on the work of the Organisation for Communications and Transit between the fifteenth and sixteenth ordinary sessions of the Assembly (document A.47.1935.VIII), adopted by the Assembly, there is an account of the progress made by the Organisation in the technical examination of the problem, with particular reference to the replies to the questionnaire sent to Governments (document A.20.1935.VIII).

On September 24th, 1935 (sixteenth ordinary session), the Assembly adopted a resolution which reads, in part, as follows :

“ The Assembly :

“ Notes with satisfaction the work performed by the Communications and Transit Organisation between the fifteenth and sixteenth ordinary sessions of the Assembly ;

“

“ Taking note of the admirable work performed by the Communications and Transit Organisation in investigating the problem of the pollution of the sea by oil, and of the replies received from Governments to the questionnaire addressed to them :

“ Considers that the subject of the pollution of the sea by oil is one suitable for solution by an international convention ;

“ Requests the Council to instruct the Communications and Transit Organisation to take, as rapidly as possible, and with the assistance of expert advice, if required, the necessary steps to complete the preparation of a draft convention and to submit that draft to Governments for consideration ;

“ Invites the Council, in the light of the observations received from Governments, to convene an international conference on oil pollution at an appropriate time.”

On September 27th, 1935 (eighty-ninth session), the Council adopted the following resolution :

“ The Council,

“ Having regard to the resolution adopted by the Assembly on September 24th, 1935, with respect to the question of the pollution of the sea by oil :

“ Recalls that at its eighty-fourth session it authorised the Communications and Transit Organisation to make all necessary preparatory studies with a view to facilitating the future conclusion of an international convention ;

“ Instructs the Communications and Transit Organisation to complete the preparation of a draft convention on this subject for the consideration of Governments, and to report to the Council when the observations from the Governments have been received.”

REPORT ON THE SECOND SESSION OF THE COMMITTEE OF EXPERTS

(October 21st to 25th, 1935).

1. In order to give effect to the above-mentioned resolutions of the Assembly and the Council, the Chairman of the Advisory and Technical Committee for Communications and Transit decided to convene the Committee of Experts. Accordingly, the second session of the Committee was held at Geneva from October 21st to 25th, 1935, with the object of preparing, in the light of the replies to the questionnaire (document A.20.1935.VIII), and of subsequent replies laid before the Committee, a draft convention for submission to Governments at an early date.

2. The replies to questions 1 and 2 of the questionnaire, which asked for information with regard to damage caused by oil pollution of the sea to birds, to fish and the fishing industry, to the amenities of beaches, and to harbours through the possibility of floating oil becoming

alight, do not require any mention in detail. They show that, while in some parts of the world the problem is not as yet acute, the pollution in many countries, even though there has been an improvement in some, is still of so serious a nature as to justify an international convention.

3. The remaining questions (3 to 8) were designed mainly to elicit information bearing on the three remedies for the evil of oil pollution which have, solely or in combination, entered into the discussions on the subject from the Washington Conference of 1926 onwards — viz., (I) the compulsory provision on board ship of separators — *i.e.*, appliances for separating oil from the ballast water which has sometimes, but not always, to be carried in the tanks of oil-burning and oil-carrying vessels; (II) the establishment of zones of so many miles in width from coasts within which deposit of oil and oily mixtures should be prohibited — the remedy embodied in the draft Washington Convention of 1926; and (III) the provision of appliances, such as separating-barges or receptacles, in ports for dealing with oily mixtures.

4. As regards remedy (I), the replies to question 3 show that the chief maritime countries — *i.e.*, those possessing a large mercantile marine — are, on the whole, against this remedy, so far as it involves the compulsory provision of separators on *existing* ships. The countries which are in favour of such a compulsory provision (some of them wish to except small coasting vessels and the like) are those which possess no mercantile marine or a comparatively small one. The main ground for the rejection of this remedy by the chief maritime countries is that it would involve a heavy additional financial burden on shipowners which they could not bear. Though the price of separators has, in some cases, been reduced, the total cost of supplying them to existing ships would still be very large, without regard to consequential costs, such as those involved in structural alterations, or to losses such as loss of cargo capacity; which would reduce earnings. A doubt is also expressed in some replies whether any beneficial results could be expected from such a compulsory requirement, and, therefore, whether it would be warranted.

5. The replies to question 5 show that separators are available in several countries for use on vessels. It is understood that these separators are efficient in that they are guaranteed to ensure a discharge containing not more than .05 of 1 per cent of oil, the standard of purity mentioned in Article II of the draft Washington Convention of 1926. They have an hourly capacity ranging for different types from 5 tons to 150 tons, and in one case (Italy) to 200 tons. The main reasons given for the doubt mentioned in paragraph 4 as to the value of separators as a remedy for the evil are as follows :

(a) No separator is available of a capacity sufficient to meet the reasonable requirement of average ocean-going " tankers " (*i.e.*, oil-carrying ships transporting various classes of oil in bulk and using the oil tanks also for water ballast) for an effective minimum discharge of 400 to 500 tons an hour;

(b) Separators are unnecessary in the case of ships carrying fuel oil (1) in bunkers only, or (2) in bunkers and double-bottom oil tanks, but not using either bunkers or tanks for water ballast. The only risk of pollution in the case of such vessels would arise through oil leaking into the bilges and thence to the sea, a risk which is practically negligible;

(c) Separators require care in operation and are not proof against the misuse of control valves; they are not, therefore, an infallible guarantee against pollution;

(d) Mud and sand find their way into tanks, even when separators have been installed, and, with the iron rust of oily sludge already there, form a persistent thick emulsion which defies efficient treatment in a separator;

(e) Some oils shipped as bunker fuel have a specific gravity approaching that of unity, which makes them extremely difficult and, in some cases, impossible to separate from water.

While separators are therefore impracticable in the case of tankers and unnecessary for ships of the type mentioned in (b) above, they are useful in the remaining class of sea-going ships — viz., those carrying oil fuel in double-bottom tanks and using them when necessary for water ballast. In fact, they have been fitted in many vessels of this type. Some of the replies show, however, that shipowners contend that the utility of separators, even in this type, depends entirely on the class of vessel and the trade in which it is engaged, and that the question of fitting them should be left to the discretion of owners and should not be made compulsory. The separators which have been fitted are, in any case, subject to the inherent difficulties mentioned in (c) and (d) above, and the recovered oil cannot always be used again; some owners find separators an economic proposition, but others do not.

Some replies describe the methods which tankers adopt to clean out the oily mixtures in their tanks; these methods, which involve treatment of the tanks in port or the discharge of the oily contents on the high seas, or at any rate beyond the fifty-mile limit voluntarily adopted by the shipowners of some nations since 1926, make, it is contended, the provision of a separator unnecessary, even if one were available of the required capacity. Similar methods are adopted by ships of these nations using fuel tanks for water ballast when they do not carry separators. It would be unfair to impose a compulsory requirement on these ships and not on tankers, especially as the quantity of oil carried by tankers is normally far larger than that carried by such ships, and the potential danger is therefore greater.

The Committee reached the conclusion that, as a requirement making compulsory the fitting of separators on existing ships would not be acceptable to the chief maritime nations, this remedy cannot be embodied in any convention which it can recommend at the present time.

6. As regards new ships, the replies to question 4 show that some nations would be willing to agree to a compulsory requirement for the fitting of separators on such ships if all maritime nations would agree. Other nations object to such a requirement on similar grounds to those given in the case of existing ships. While it is true that the inherent difficulties in the use of separators would not be removed by limiting their compulsory use to new vessels, the technical difficulties connected with fitting separators on them would be less serious than for existing vessels and the question of cost would be less acute. The Committee is of opinion that there should be included in the Final Act of the international conference called by the League to conclude a convention on this subject a recommendation to be conveyed by Governments to shipowners that separators should be designed for and fitted on new vessels wherever practicable, and particularly on large vessels to be provided with oil tanks which are also to be used for water ballast.

7. The foregoing remarks relate principally to the larger types of sea-going vessels. Some of the replies call attention to the possible discharge of oily mixtures, which may not be serious in the case of each vessel, but, in the aggregate, may amount to a considerable quantity, by craft of limited bunker capacity operating, not only in harbours and estuaries, but also in coastal waters. The question of fitting separators in such small vessels involves serious and probably insurmountable difficulties, but, as these vessels are a potential source of oil pollution, the Committee recommends that any convention should contain a provision stipulating that such small craft should be required to take all necessary precautions to prevent pollution. The Committee also recommends that, when the convention it submits is circulated in draft for the observations of Governments, the latter should be invited to suggest, for consideration at the international conference to be called to conclude a convention on this subject, the maximum figure of bunker capacity in small vessels driven by oil of the nature mentioned in Article II of the draft Washington Convention — viz., crude, fuel or Diesel oil — in respect of which, in their view, special treatment might be accorded — *e.g.*, a reduction of any penalties which might be imposed for offences against the provisions of a convention. The Japanese expert, without raising any objection to the adoption of this course, reserves the opinion of his Government on the question of the inclusion of small craft as regards any obligations imposed by a convention on vessels generally.

8. The Committee agrees in principle with Article VI of the draft Washington Convention, which relates to certain concessions to be granted in the matter of tonnage measurement and payment of dues by vessels on which separators are fitted. As, however, it would be necessary, before any convention containing such an article could be ratified, to modify the legislation of certain countries in respect of port dues or their rules for the calculation of net tonnage, and, as such modifications would take a long time and it is desirable that a convention on this subject should be rapidly concluded, the Committee is of opinion that a recommendation embodying Article VI of the Washington draft should be included in the Final Act of the international conference rather than in the convention itself.

9. As regards remedy (II) — viz., the establishment of zones in the sea within which the deposit of oil and oily mixtures should be prohibited — question 8 was designed to elicit information on the important point of the distances to which oil and oily mixtures discharged from ships at sea may travel before reaching the coasts. The replies to the question show that not many nations have collected evidence on this point. Interesting information is given by Canada (observations of a drift of more than fifty miles in certain instances), Egypt (The Faculty of Science, Egyptian University, who produce evidence to indicate that oil was detected on the surface of the Red Sea five hundred miles away from the point of discharge), France (oil may drift for fairly considerable distances; in certain districts, however, a drift could probably take place only for a maximum distance of about thirty miles, having regard to the strength and running of tidal currents); and Italy (oil discharges in the Mediterranean do not appear to travel very long distances, since there are no continuous currents of any size there such as are found in the oceans).

The most elaborate investigations have been made by the United States of America and the United Kingdom. The former refer to experiments made at sea in 1926-1927, when the longest travel observed, in an experiment which had to be discontinued, was one of ninety miles in seventy-two hours. The conclusion arrived at by the United States Government upon these experiments is that, dependent on certain conditions, such as the nature and amount of the oil discharged, the prevailing wind and currents, the average surface condition of the sea, etc., oil mixtures, as commonly discharged from ships at sea, will film out to an invisible thinness within a hundred hours from the time of discharge. The replies from the United Kingdom (including the supplementary reply furnished to the Committee) show that the scientific investigations undertaken on behalf of the Government indicate that, subject to two qualifications, it is broadly true that the chemical and physical properties of fuel oils are such that they can float more or less indefinitely; the oil film in the open sea may disappear from sight in a few days, but it persists as an invisible film which will be liable ultimately to drift inshore, where it will adhere to the beaches and in time make them appreciably foul. The two qualifications are: (1) There are indications that an oil film on turbid water may pick up sufficient sand to constitute a mixture that is heavier than water and will eventually sink; and (2) the physical properties of oil discharges may also be modified as the result of entanglement with small marine organisms.

The distance to which oil will travel in tidal waters must be dependent on the strength of the permanent current to which it is exposed. Recent tidal stream observations for a lunar period at numerous light-vessels off the English coast show that there is a permanent surface set of about six miles a day from west to east in the English Channel under summer conditions (in winter, it would be greater), and that this set is continued into the North Sea, where it is sometimes reversed by strong northerly winds. A similar current sets southwards on the east shores of the Shetland and Orkney Islands, Scotland and Northern England. It turns east towards Denmark and then north along the Norwegian coast. These permanent currents are to be ascribed to the combined influence of tides, winds, differences of density and the difference between gain by permanent inset from the Atlantic Ocean, rain and rivers, and loss by evaporation.

One deduction from these investigations, made on behalf of the United Kingdom Government, is that a zone even of one hundred and fifty miles would not be likely to provide a complete remedy for the evil, though it would certainly mitigate it. The general result of the investigations is to confirm the opinion of the United Kingdom Government, as expressed in its previous reply to question 8 (document A.20.1935.VIII) — viz., that it is probable that, in any area up to a distance of 150 miles from land, where the resultant of current, tidal stream, and drift due to wind happens to produce a general onshore drift, discharged oil and oily mixtures will eventually reach coastal waters, and that, while a zone of 150 miles would probably result in a considerable reduction in the evils of oil pollution, a zone of fifty miles would be far less efficacious, except where the wind and current were such as to prevent the oil, etc., from drifting directly on shore.

The general conclusion from the replies to this question seems to be that, as so much depends on the strength and direction of such variable influences as the currents, tidal streams and prevailing winds in the locality in which discharge occurs, no general rule can be formulated as to the distance offshore at which oil, etc., may be safely discharged.

10. The Committee recommends that the convention should be based upon the remedy of "zones" and should embody provisions such as were contained in the draft Washington Convention of 1926, providing that the parties to the Convention may establish zones of this nature adjacent to their coasts. Under that draft Convention, zones were not to extend to more than fifty nautical miles from a coast, but in exceptional cases they might extend to distances not exceeding 150 nautical miles. Most of the chief maritime nations are, in fact, only prepared at the present time to accept a convention based on these provisions of the draft Washington Convention, and the Committee, with the exception of the Japanese expert, who reserves the opinion of his Government on the distances mentioned in that draft Convention, recommends that a trial should be given to them. The Committee, however, is of opinion that the provisions of that draft Convention should be supplemented by provisions defining the rights and obligations of the parties to the Convention with reference to the discharge of oil both inside and outside territorial waters within the limits of a zone. The Committee is also of opinion that, in view of the inherent difficulty of detecting offences within a zone, the Washington draft should be supplemented by a provision relating to the imposition of penalties for such offences.

It is recognised that the question of the amount of the penalties should properly be left to national legislation, but the Committee is of opinion that the penalties should be adequate enough to serve as a deterrent in connection with these offences, and that the Final Act of the international conference concluding a convention on the lines proposed should include a recommendation to this effect.

The Committee is also of opinion that, in order to avoid discrimination in the matter of penalties, the convention should contain a provision that each contracting party will undertake to secure that the penalties imposed for illegal discharges by vessels registered in,

or under the law of, any of his territories shall be, in the case of zones established by any other contracting party, not less than in the case of zones established by himself.

11. As regards remedy (III) — viz., the provision of appliances, such as separating-barges and receptacles, in ports for dealing with oily mixtures — the Committee would point out that, whilst the provision of such facilities would not in itself be an adequate remedy for oil pollution, the fact that the appliances were available for use in ports would afford vessels the necessary facility for observing a prohibition to discharge oily mixtures within a zone. The provision of such appliances would be required particularly where zones of over fifty miles in width were established. The safety of a ship should be the master's first consideration, and if he could not be certain of finding facilities of this kind at his port of destination and had to empty the tanks of his ship of their oily mixtures before entering a zone, the weather might be so bad as to affect the stability of the ship while crossing the zone. His difficulty would be greater with a zone of over fifty up to 150 miles, as in that case he would not be in so good a position, as in the case of a zone of fifty miles or under, to judge what weather he would be likely to encounter when traversing the zone.

12. The replies to questions 6 and 7 of the questionnaire show that, apart from the United Kingdom, where several ports have been supplied with appliances of this kind, the only other ports with apparatus available generally for commercial vessels are Le Havre, Rotterdam, Amsterdam and Bombay. There is an urgent need for the more general provision of these facilities in ports throughout the world, and some of the replies to these two questions call attention to this — several of them, in fact, even suggesting that the provision of the apparatus before a zone is established should be made compulsory in all important ports within the zone served by oil-burning and oil-carrying ships. The discussions in the Committee revealed that there would almost certainly be opposition on the part of some nations to the inclusion in a convention of a compulsory provision covering this suggestion. The Committee is, however, of opinion that, for the reasons given in the preceding paragraph (11) of this report, it is essential, in the interests of the safety of shipping, to ensure that the facilities in ports for separating oil and water are reasonably adequate before the establishment of any proposed zones of over fifty miles in width, and that any Convention should, at any rate, contain a provision relating to this point. Further, the Committee, in view of the fact that the replies to the questionnaire show that very few ports are equipped with separating appliances, is of opinion that the Final Act of the International Conference should include a recommendation to Governments to take whatever measures are practicable to increase the number of such appliances in ports frequented by oil-burning and oil-carrying ships throughout the world.

13. The Committee is of opinion that, as stated in the memorandum laid before the Council of the League in December 1934, no measures that could be taken by international agreement based on any of the three remedies under consideration could obviate pollution due to involuntary causes, such as the stranding or collision of vessels having oil on board, or the pouring of oil on the sea by vessels during storms and when assisting other vessels in distress. There is evidence that the large volumes of oil occasionally released by vessels involved in casualties, especially those affecting oil-carrying vessels, are the real cause of the serious pollution along some stretch of coast which is reported now and then. On the other hand, these cases of pollution, when unavoidable in the interests of life and property, ought not to be regarded as infringements of any convention relating to zones. Such a convention, in the opinion of the Committee, should contain a provision to the effect that the discharge of oil or oily mixtures as the result of stress of weather or of a casualty, or to avoid a casualty, whether to the discharging vessel or to another vessel, need not be regarded as illegal.

14. As none of the three remedies for the evil of oil pollution referred to in this report can, in the Committee's opinion, be regarded as without disadvantages, the Committee recommends that efforts should be encouraged to discover a remedy which may be more completely effective. It understands, *e.g.*, that it has been suggested in the United Kingdom that it may be possible to devise a remedy involving the chemical or physical treatment of the asphaltic and other residues in some of the oils affected. It is assumed that, if it can be established that it is the presence of these residues in certain oils which is the cause of injurious pollution, it may be possible to secure the adoption of an inexpensive way of treating the oils containing these elements before they are taken on board or discharged from oil-carrying and oil-burning vessels, so as to eliminate or reduce the risk of pollution. It is recognised that any possible methods may be found to be too costly for adoption, or that they may destroy the value of the oils for use in boilers or for other purposes. In view of investigations of this kind, and of other experiments which may result — *e.g.*, in improvements in separators — the Committee is of opinion that any convention should contain an article inviting the Secretary-General of the League of Nations to receive and circulate to Governments all data of this kind relating to the means for dealing with oil pollution, and that the article should state in terms that such data should include, *inter alia*, information relating to the nature, capacity and cost of separators which may become available in various countries for use on board ship and in port, and also to chemical and physical processes, such as are mentioned above,

for treating the asphaltic and carbon residues in oil. The consideration of such data may alter the situation and for this reason the Committee recommends the inclusion in the convention of an article, similar to one which has been included in previous Conventions concluded under the auspices of the League, making it possible for the convention, at the request of Governments affected, to be revised after a certain period.

15. The draft Convention appended is in " Heads of States " form, and is based on the draft Washington Convention of 1926, with certain amendments and additional articles.

Article I (1) is based on Article V of the Washington draft. The criterion adopted for defining vessels to which the Convention applies is that they shall be " registered in, or under the law of, any of the territories to which the Convention applies ". Unregistered vessels owned by nationals of the contracting parties are brought in by Article I (2).

Other formulæ have been suggested — viz. :

(a) " Flying the flag " of a contracting party (see Article V of the Washington draft). This is inappropriate because the British mercantile flag is flown by vessels registered in more than one part of the British Commonwealth, and it would not be possible for one member of the British Commonwealth to bring in, by its acceptance of the convention, vessels registered in the territories of another member.

Further, it is not desired that the convention should have the appearance of applying to vessels registered in colonies, etc., to which it had not been specifically applied under Article X.

(b) " Registered in the ports of territories to which the Convention applies ". This is inappropriate because (i) some countries, like Austria, have vessels but no ports, and (ii) some British vessels are registered at Shanghai, which is not a port in any British territory.

The corresponding article of the Washington draft has also been amended so as to make it clear that the contracting parties will take the necessary measures to render discharge of oil, etc., within " zones " illegal and punishable by adequate penalties. The last sentence of Article I (1) is the provision recommended at the end of paragraph 10 of this report.

Article I (2) has been drafted in this form so as to cover the small vessels mentioned in Article I (3), which are often unregistered and not compelled to fly a national flag.

Article I (3) is based on the second part of Article III of the Washington draft, and covers the small vessels referred to in paragraph 7 of this report.

Article I (4) is new, and is designed to cover the point mentioned at the end of paragraph 13 of this report.

Article II, Paragraphs (1) to (3) reproduce, in essentials, Article I of the Washington draft, with some amendments, and the addition of the second sentence in each of paragraphs (1) and (2). The substitution of " shall reach an agreement with ", in the first sentence of paragraph (2), for " shall inform " in Article I (b) of the Washington draft, is regarded as important.

Paragraph (4) is the new provision mentioned in paragraph 12 of this report.

Article III (1) reproduces Article II of the Washington draft. Paragraph (2) of this article is new and seems to be self-explanatory.

Article IV is based on the first part of Article III of the Washington draft, with the substitution of " vessels commissioned in their naval services " for " vessels classed as war vessels ".

Article V reproduces Article IV of the Washington draft, with a similar substitution.

Articles VI and VII are new, and may be read together, with reference to the remarks in paragraph 10 of this report relating to the desirability of including in the convention provisions defining the rights and obligations of the parties to the convention with reference to the discharge of oil both inside and outside territorial waters within the limits of a zone.

Article VIII is based on Article VII of the draft Washington Convention. It has been extended so as to detail certain important particulars relating to the means for dealing with oil pollution which the Secretary-General of the League of Nations is, under the article, to be invited to receive — see paragraph 14 of this report.

The remaining articles are more or less in the common form adopted in "Heads of States" Conventions for articles of this nature and do not require special comment, with the exception of Article XV. This meets the suggestion in paragraph 14 above and provides for a possible revision of the convention, after it has been in force for two years, on receipt by the Secretary-General of the League of requests from three contracting parties for such a revision.

16. The Committee also appends a draft of a Final Act of the international conference to be called to consider the draft convention. This contains drafts of the recommendations mentioned in paragraphs 6, 8, 10 and 12 of this report, in the form in which the Committee suggests that they should be adopted.

**DRAFT CONVENTION
RELATING TO THE POLLUTION OF THE SEA BY OIL**

[Heads of States]
desiring to take action by common accord to prevent pollution of the sea by oil or oily mixtures discharged from vessels, have resolved to conclude a Convention for this purpose and have appointed as their plenipotentiaries :
who, having communicated their full powers, found in good and due form, have agreed as follows :

Article I.

(1) The High Contracting Parties agree, each in respect of vessels of the classes specified in Article IV registered in, or under the law of, any of their territories to which the present Convention applies, to take the necessary measures to render illegal and punishable by adequate penalties the discharge by such vessels of oil or oily mixtures, as defined in Article III (1), within any zone established as provided in Article II. Each High Contracting Party undertakes to secure that the penalties imposed by such measures for illegal discharges by vessels registered in, or under the law of, his territories shall be, in the case of zones established by any other High Contracting Party, under Article II, not less than in the case of zones established by himself under that article.

(2) Vessels owned by the nationals of a High Contracting Party which are unregistered shall, for the purposes of this Convention, be deemed to be registered in, or under the law of, the territory of that High Contracting Party in which the owners are resident.

(3) The measures referred to in paragraph (1) of this article may include special provisions to meet the case of small vessels of limited bunker capacity, these provisions to be applied by each High Contracting Party to such small vessels registered in, or under the law of, any of his territories. Nevertheless, such provisions shall not exclude the obligation for such vessels to take all necessary precautions to prevent oil pollution.

(4) The unavoidable discharge of oil or oily mixtures, as the result of an accident, a casualty or a collision, or to prevent an accident or a casualty, whether to the vessel in question or to any other vessel, or by reason of stress of weather, need not be rendered illegal under the measures provided for in paragraph (1) of this article. It shall be provided, however, that in those cases the master of a vessel shall make a detailed statement in the vessel's log of the circumstances and the reasons for his action, in addition to the entries in the log prescribed by Article III (2).

Article II.

The High Contracting Parties may establish zones in the sea adjacent to the coasts of any of their territories to which the present Convention applies within which discharge from the vessels specified in Article IV of oil or oily mixtures as defined in Article III (1) shall be prohibited in accordance with the following principles :

(1) Such zones shall not extend more than fifty nautical miles from the coasts, except that, if such extent is in particular instances found insufficient because of peculiar configuration of the coast-line or other special conditions, such zones may be extended to a width not exceeding 150 nautical miles. In establishing zones, each High Contracting Party shall take into consideration that vessels desiring to discharge oil should not be obliged to deviate too much from their normal route before reaching their port of destination.

(2) In any case where any High Contracting Party desires to prescribe a zone, any part of which may be within fifty nautical miles of the coasts of the territory of another State, such High Contracting Party shall reach an agreement with such other State before

the zone is prescribed. When, however, the coasts of a territory of one High Contracting Party are less than 100 nautical miles from the coasts of a territory of another State, such High Contracting Party shall have the right, without the consent of the other State, to establish a zone to the middle of the channel — *i.e.*, to a line approximately equidistant between such coasts.

(3) Six months' notice of the establishment of any zone or zones, and of any change thereof, shall be given, preferably in the form of charts exhibiting the limits of such zone or zones, by the High Contracting Party establishing or changing such zone or zones to the Secretary-General of the League of Nations. The Secretary-General of the League shall forthwith transmit the information to the Governments of all the High Contracting Parties to this Convention and to the Governments of all Members of the League of Nations and of all non-member States referred to in Article XI (1).

(4) A High Contracting Party, desiring to establish a zone more than fifty miles in width, shall, in giving such six months' notice, furnish particulars of the appliances for separating oil and water which are then available in the ports frequented by oil-carrying and oil-burning ships included in the zone.

Any other High Contracting Party may, within this period of six months, make representations, through the Secretary-General of the League of Nations or directly, to the High Contracting Party proposing to establish the zone as to the advisability of providing the above-mentioned ports with such appliances, or of improving the existing appliances.

The Secretary-General of the League of Nations shall forthwith transmit a copy of such representations, if received by him, to the High Contracting Party in question, with a request that the latter should give such representations immediate consideration.

If that High Contracting Party decides to accede to such representations, the zone may be established as from the expiry of the period of six months' notice, or of such longer period as may be necessary to enable effect to be given to the representations; but, if the High Contracting Party declines to accede to the representations, in whole or in part, the zone shall not be established until an agreement has been reached between that High Contracting Party and the High Contracting Party or Parties making the representations, or until the dispute has been settled in accordance with the procedure set out in Article IX of this Convention.

Article III.

(1) The discharges which shall be prohibited in any zone prescribed pursuant to Article II are :

(a) Crude, fuel or Diesel oil, or

(b) Any mixture containing more than .05 of 1 per cent of such oil, or having a content of such oil sufficient to form a film on the surface of the sea visible to the naked eye in daylight in clear weather.

(2) The High Contracting Parties agree to take the necessary measures to ensure that entries shall be made in a vessel's log whenever oil or oily mixtures are discharged. Such entries shall state as nearly as possible the position where the discharge took place and be signed by the master and one of the vessel's officers.

In the case of a vessel fitted with a separator for the purpose of separating oil from ballast water, the vessel's log shall contain a statement of the period during which such separator has been used, and this statement shall be similarly signed.

Article IV.

The vessels to which the provisions of Article I apply are all sea-going vessels, other than vessels commissioned in the naval services of the High Contracting Parties, carrying crude, fuel or Diesel oil, in bulk as cargo, or as fuel for boilers or engines.

Article V.

The High Contracting Parties agree to take the necessary measures to ensure that all vessels commissioned in their respective naval services shall take every possible precaution to prevent oil pollution.

Article VI.

(1) Nothing in the present Convention shall be deemed to limit the rights under general international law of any High Contracting Party to prescribe measures with regard to the discharge of oil and oily mixtures in his territorial waters and to enforce such measures against all vessels.

(2) Outside his territorial waters, and in the zones prescribed by him in accordance with this Convention, a High Contracting Party shall possess the right to watch over the discharge

of oil and oily mixtures by vessels not registered in, or under the law of, any of his territories and to note offences, but shall not possess the right to stop or interfere with any such vessels.

Article VII.

(1) Jurisdiction in regard to the discharge of oil in the waters of the zones established as provided in Article II, outside territorial waters, shall belong to the authorities of the High Contracting Party in or under the law of whose territory the vessel is registered.

(2) The Government of the High Contracting Party in or under the law of whose territory a vessel is registered may be informed through the diplomatic channel of any offence committed outside territorial waters by such a vessel against measures prescribed in accordance with Article I by the Government of the High Contracting Party which has established the zone, or inside territorial waters if the vessel has sailed outside those territorial waters without measures having been enforced against her. On receipt of such information, the former High Contracting Party shall investigate the matter, and, where the circumstances justify it, take steps for the punishment of the offence for breach of regulations laid down by that High Contracting Party.

Article VIII.

(1) The Secretary-General of the League of Nations is invited to receive, co-ordinate and circulate to the Members of the League and all non-member States referred to in Article XI (1) information relating to the system of zones established under the terms of this Convention, the working of that system, and other data pertaining to the problem of oil pollution of the sea and the means of dealing with that problem, such as (a) particulars of the nature, capacity and cost of apparatus for separating oil from water which may become available for use on existing vessels and in ports, or have been designed for and fitted on new vessels, and (b) particulars of the nature and cost of any processes for the chemical or physical treatment, before shipment on or discharge from vessels, of oil and oily mixtures, as defined in Article III (1), so as to render them less injurious as regards pollution.

(2) The High Contracting Parties undertake to forward to the Secretary-General of the League of Nations, in addition to the data specified in paragraph (3) of Article II hereof, all other information which they consider appropriate for the purposes of the preceding paragraph, including the charges which are levied, or are proposed to be levied, for the use of separating apparatus in ports.

Article IX.

If there should arise between any of the High Contracting Parties a dispute of any kind relating to the interpretation or application of the present Convention, and if such dispute cannot be satisfactorily settled by diplomacy, the dispute shall be referred to arbitration or judicial settlement. In the absence of agreement on the choice of another tribunal, the dispute shall, at the request of any one of the Parties, be referred to the Permanent Court of International Justice, if all the Parties to the dispute are Parties to the Protocol of December 16th, 1920, relating to the Statute of that Court, and, if any of the Parties to the dispute is not a Party to the Protocol of December 16th, 1920, to an arbitral tribunal constituted in accordance with The Hague Convention of October 18th, 1907, for the Pacific Settlement of International Disputes. Provided always that before resorting to arbitration or judicial settlement the Parties may by common agreement submit the dispute to the Advisory and Technical Committee for Communications and Transit of the League of Nations, which shall make recommendations for an amicable settlement.

Article X.

Any High Contracting Party may, at the time of signature, ratification or accession, declare that, in accepting the present Convention, he does not assume any obligation in respect of all or any of his colonies, protectorates, overseas territories, or territories under his suzerainty or mandate.

Any High Contracting Party may at any time subsequently give notice to the Secretary-General of the League of Nations that he desires that the present Convention shall apply to all or any of the territories which have been made the subject of a declaration under the preceding paragraph, and the Convention shall apply to all territories named in such notice ninety days after its receipt.

Any High Contracting Party may at any moment after the expiry of the period of two years mentioned in Article XVI declare by a notification addressed to the Secretary-General of the League of Nations that he desires that the present Convention shall cease to apply to all or any of his colonies, protectorates, overseas territories or territories under his suzerainty or mandate, and the Convention shall cease to apply to the territories named in such declaration. Such notification will take effect one year after its receipt by the Secretary-General of the League of Nations.

The Secretary-General shall communicate to the Members of the League and to all non-member States referred to in Article XI (1) all declarations, notices and notifications received under the present article.

Article XI.

(1) The present Convention, of which the English and French texts shall be equally authentic, shall bear this day's date. It shall remain open until the (date) for signature on behalf of any Member of the League of Nations and of any non-member State represented at the Conference at Geneva or to which the Council of the League of Nations shall communicate a copy for this purpose.

(2) The present Convention shall be ratified. The instruments of ratification shall be deposited with the Secretary-General of the League of Nations, who shall notify their receipt to all Members of the League and all non-member States referred to in paragraph (1) of this article.

Article XII.

As from the . . . day of . . . (*i.e.*, date when signature closes under Article XI (1)), the present Convention may be acceded to on behalf of any Member of the League of Nations and of any non-member State referred to in Article XI (1).

The instruments of accession shall be transmitted to the Secretary-General of the League of Nations, who shall notify their receipt to all Members of the League of Nations and to the non-member States referred to in Article XI (1).

Article XIII.

(1) Any ratification of or accession to the present Convention may be expressed to be conditional on the ratification or accession of one or more other Members of the League of Nations or non-member States.

(2) Ratifications or accessions, which are made conditional under the preceding paragraph, shall be deemed to be received on the day on which these conditions are fulfilled.

(3) The present Convention shall come into force on the ninetieth day following the receipt by the Secretary-General of the League of Nations of ratifications or accessions on behalf of eight Members of the League of Nations or non-member States.

Article XIV.

Ratifications or accessions received after the entry into force of the Convention under Article XIII (3) shall take effect as from the ninetieth day after their receipt by the Secretary-General of the League of Nations.

Article XV.

(1) At any time after the expiry of two years from the entry into force of this Convention under Article XIII (3), the Government of any High Contracting Party may address a request for revision to the Secretary-General of the League of Nations.

(2) As soon as three such requests have been received, the Secretary-General will notify the Council of the League of Nations to this effect.

(3) The Secretary-General will inform the Governments of all Members of the League of Nations and of all the non-member States referred to in Article XI (1) of any request for revision received under the first paragraph of this article.

Article XVI.

(1) After the expiry of two years from its entry into force under Article XIII (3), the present Convention may be denounced by notification in writing addressed to the Secretary-General of the League of Nations. The denunciation shall take effect six months after its receipt by the Secretary-General and shall operate only as regards the Members of the League or non-member States on whose behalf it has been deposited.

(2) The Secretary-General shall notify all Members of the League of Nations and all non-member States mentioned in Article XI (1) of any denunciations received.

(3) If as the result of denunciations the number of Members of the League and non-member States bound by the Convention is reduced to less than eight, the present Convention shall cease altogether to be in force.

Article XVII.

The present Convention shall be registered by the Secretary-General of the League of Nations on the day of its entry into force.

IN FAITH WHEREOF the above-mentioned plenipotentiaries have signed the present Convention.

DONE at Geneva this . . . day of . . . in a single copy, which shall remain deposited in the archives of the Secretariat of the League of Nations and certified true copies of which shall be delivered after (day) to the Members of the League of Nations and all the non-member States referred to in Article XI (1).

DRAFT FINAL ACT OF THE INTERNATIONAL CONFERENCE
RELATING TO THE POLLUTION OF THE SEA BY OIL

The Governments of
[List of Governments at Conference]

having received the invitation extended to them by the Council of the League of Nations to participate in a Conference for the examination of a draft Convention on this subject,

Have in consequence appointed the following delegations :

[List of plenipotentiaries]

Who accordingly assembled at Geneva.

The Council of the League of Nations appointed as President of the Conference.

The secretarial work was entrusted to

In the course of a series of meetings between . . . the Convention of (date) was concluded.

The Conference also adopted the following recommendations :

(1) That :

(a) No penalty or disability of any kind whatever in the matter of tonnage measurement or payment of dues should be incurred by any vessel by reason only of the fitting of any device or apparatus for separating oil from water ;

(b) Dues based on tonnage should not be charged in respect of any space rendered unavailable for cargo by the installation of any device or apparatus for separating oil from water ;

(c) The term " device or apparatus for separating oil from water " as used in paragraphs (a) and (b) above should include any tank or tanks of reasonable size used exclusively for receiving waste oil recovered from the device or apparatus, and also the piping and fittings necessary for its operation.

(2) That the High Contracting Parties should recommend to shipowners that separators should be designed for and fitted on new vessels wherever practicable, particularly on large vessels to be provided with oil tanks which are also to be used for water ballast, and that the High Contracting Parties should encourage shipowners, as regards vessels to be registered in, or under the law of, their respective territories, so to act by any administrative or financial measures that the former may judge to be necessary.

(3) That in view of the inherent difficulty of enforcing the provisions relating to zones contained in the Convention and of detecting offences within them, the High Contracting Parties should seriously consider the question of imposing penalties which will be sufficient to act as a deterrent in connection with such offences.

(4) That in view of the fact that, according to the replies to the questionnaire despatched by the Secretary-General of the League of Nations on January 23rd, 1935, to States Members of the League and to non-member States, it appears that few ports are equipped with appliances for separating oil and water, Governments are recommended to take whatever measures are practicable to increase the number of such facilities in ports frequented by oil-burning and oil-carrying vessels throughout the world, and to keep as low as possible the charges for the use of such facilities.

[Communicated to the Council
and the Members of the League.]

Official No.: **C. 458. M. 240.** 1935. VIII.
[C.C.T. /19th Session/P.V.]

Geneva, November 20th, 1935.

LEAGUE OF NATIONS

**ADVISORY AND TECHNICAL COMMITTEE
FOR COMMUNICATIONS AND TRANSIT**

8

RECORDS OF THE WORK
OF THE
NINETEENTH SESSION

Held at Geneva from November 5th to 9th, 1935.

Series of League of Nations Publications

VIII. TRANSIT
1935. VIII. 8.

ADVISORY AND TECHNICAL COMMITTEE FOR COMMUNICATIONS AND TRANSIT.

The Committee was composed as follows :

- M. V. KRBEČ (appointed by the Government of Czechoslovakia), Engineer, Consul-General at Hamburg (*Chairman*).
- His Excellency M. A. DE CASTRO (appointed by the Government of Uruguay), Envoy Extraordinary and Minister Plenipotentiary in Belgium and the Netherlands (*Vice-Chairman*).
- M. M. NORDBERG (appointed by the Government of Finland), Consul-General, Commercial Attaché at Paris (*Vice-Chairman*).
- His Excellency M. G. DE BLANCK Y MENOCAI (appointed by the Government of Cuba), Minister at London and Berne and Permanent Delegate to the League of Nations.
- His Excellency M. A. DIETRICH DE SACHSENFELS (appointed by the Government of Hungary), Admiral, Envoy Extraordinary and Minister Plenipotentiary, Delegate to the International Danube Commission and to the Permanent Technical Hydraulic System Commission of the Danube.
- M. Silvain DREYFUS (appointed by the Government of France), Honorary President of the General Council of Roads and Bridges and of the High Council of Public Works.
- M. R. HEROLD (appointed by the Government of Switzerland), Chief of District of the Federal Railways.
- M. F. HOSKIÆR (appointed by the Government of Denmark), Director of the Ministry of Public Works.
- His Excellency M. N. ITO (appointed by the Government of Japan), Envoy Extraordinary and Minister Plenipotentiary in Poland.
- Mr. D. W. KEANE (appointed by the United Kingdom Government), Representative of the United Kingdom on the International River Commissions.
- M. Pierre KIRSANOFF (appointed by the Government of the Union of Soviet Socialist Republics), Chief of the International Relations Service at the People's Commissariat for Communications.
- M. A. KRAHE (appointed by the Government of Spain), Engineer for Roads and Bridges.
- M. V. MODEROW (appointed by the Government of Poland), Vice-Chairman of the Polish Delegation to the Danzig Harbour Board.
- M. J. DE RUELLE (appointed by the Government of Belgium), Legal Adviser to the Ministry for Foreign Affairs.
- M. G. SINIGALIA (appointed by the Government of Italy), former Chief Inspector and Adviser of the Board of Directors of the Royal State Railways.
- M. E. SPELUZZI (appointed by the Government of the Argentine Republic), Engineer.
- His Excellency Dr. A. DE VASCONCELLOS (appointed by the Government of Portugal), Envoy Extraordinary and Minister Plenipotentiary, Permanent Delegate to the League of Nations, former President of the Council and Minister for Foreign Affairs.
- Dr. CHANG-CHUN WANG, M.A., Ph.D., LL.D. (appointed by the Government of China), Representative of the Ministry of Railways and Director of the Chinese Government Purchasing Commission in London.
-

PERMANENT COMMITTEES.

I. Permanent Committee for Ports and Maritime Navigation.

Sir Norman HILL, Bart. (*Chairman*).

(a) *Committee for Ports :*

- Mr. G. E. BAKER, Assistant Secretary of the Board of Trade of the United Kingdom.
- M. Léon DENS, Senator (Belgium).
- M. G. INGIANNI, Director-General of the Italian Mercantile Marine.
- Captain M. NORTON, former Director of the Portuguese Lighthouse Service.
- M. P. H. WATIER, Counsellor of State, Director of Navigable Waterways and Maritime Ports in the French Ministry of Public Works.

(b) *Committee for Maritime Navigation:*

- M. G. BRETON, Shipowner (France).
M. J. B. VAN DER HOUVEN VAN OORDT, former President of the Netherlands Ship-owners' Association.
M. ITO.
M. Arthur H. MATHIESEN, Vice-President of the Norwegian Shipowners' Association.
M. A. PALANCA, Naval Architect, Representative of the " Società Triestina di Navigazione Cosulich ", Trieste.
Mr. W. Leslie RUNCIMAN, of the Shipping Company Walter Runciman & Co., Ltd., Member of the Council of the Chamber of Shipping of the United Kingdom.

II. Permanent Committee for Inland Navigation.

- M. Silvain DREYFUS (*Chairman*).
M. A. DELMER, Secretary-General of the Department for Roads and Bridges at the Belgian Ministry of Public Works.
Mr. KEANE.
M. KRBEČ.
His Excellency M. C. ROSSETTI, Minister Plenipotentiary, Representative of Italy on the International River Commissions.
M. DIETRICH DE SACHSENFELS.
M. F. L. SCHLINGEMANN, Chief Engineer, Director of the Rijkswaterstaat.
M. Milan YOVANOVITCH, Director of Inland Navigation in Yugoslavia.

III. Permanent Committee for Transport by Rail.

- M. HEROLD (*Chairman*).
M. M. CASTIAU, Secretary-General of the Belgian Ministry of Transport
M. C. M. GRIMPRET, Vice-President of the General Council of Roads and Bridges and of the High Council of Public Works of France } *Bureau.*
M. SINIGALIA.
Sir Francis DENT, former Chairman of the Railways Committee of the Second General Conference on Communications and Transit, ex-Managing Director of the South-Eastern and Chatham Railway.
Dr. H. GRÜNEBAUM, Ministerial Counsellor at the Austrian Federal Ministry for Commerce and Communications.
M. KRAHE.
M. F. MOSKWA, Head of Division at the Polish Ministry for Communications.
M. SPELUZZI.
Dr. CHING-CHUN WANG.
A Soviet member.
Colonel T. A. HIAM, former Assistant to the President of the Canadian National Railways
M. Albert REGNOUL, Hon. Deputy-Director of the Paris-Lyons-Mediterranean Railway Company } *Technical Advisers assisting the Chairman.*

IV. Permanent Committee on Electric Questions.

- M. DE VASCONCELLOS (*Chairman*).
Sir John BROOKE, Electricity Commissioner, London.
M. Oreste JACOBINI, Engineer, Chief of the Main Service of the Italian State Railways.
M. LAUNAY, Chief of the Roads Department, of Hydraulic Power and Distribution of Electric Energy at the French Ministry of Public Works.
A Swedish member.

The following will be invited to take part in the work of the Committee:

- The Chairman of the International Executive Committee of the World Power Conference.
A representative of the " Conférence internationale des grands réseaux électriques à haute tension ".

A representative of the "Commission électrotechnique internationale".

A representative of the "Union internationale des producteurs et distributeurs d'énergie électrique".

V. Permanent Committee on Road Traffic.

M. NORDBERG (*Chairman*).

Mr. P. C. FRANKLIN, of the Roads Department, Ministry of Transport of the United Kingdom.

M. Pierre Al. GHICA, Member of the Committee of the International Association of Recognised Automobile Clubs (Roumania).

M. E. MELLINI, Chief Inspector of Railways, Tramways and Automobiles of the Kingdom of Italy.

M. Henri ROTHMUND, Chief of the Police Division of the Swiss Federal Department of Justice and Police.

M. Václav ROUBIK, Engineer, Director of the Czechoslovak Ministry of Public Works.

M. José N. URGOITI, Civil Engineer (Spain).

M. A. VALSINGER, Head of the Technical Service of the Swedish Department of Roads and Bridges.

M. C. WALCKENAER, former Inspector-General of Mines at the French Ministry of Public Works.

VI. Permanent Legal Committee.

Count E. PIOLA-CASELLI, Senator, President of Section at the Court of Cassation, Rome (*Chairman*).

M. G. NAUTA, Barrister at Rotterdam (*Vice-Chairman*).

Mr. W. E. BECKETT, Assistant Legal Adviser, Foreign Office.

M. Jan HOSTIE, Secretary-General of the Central Commission for Rhine Navigation; former Legal Adviser at the Belgian Department of Marine.

M. René MAYER, Maître des requêtes honoraire au Conseil d'Etat de France, Professor at the Ecole libre des Sciences politiques, Paris.

M. MODEROW.

Dr. Ivan SOUBBOTITCH, Permanent Delegate of the Kingdom of Yugoslavia to the League of Nations, *Privat docent* of the Faculty of Law, University of Belgrade.

VII. Budget Sub-Committee.

The Chairman-in-office of the Advisory and Technical Committee (*Chairman*).

M. DE CASTRO.

M. Silvain DREYFUS.

M. HOSKIÆR.

Mr. KEANE.

M. MODEROW.

M. DE RUELLE.

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RECORDS OF THE WORK OF THE NINETEENTH SESSION OF
THE ADVISORY AND TECHNICAL COMMITTEE FOR
COMMUNICATIONS AND TRANSIT.

All the members of the Committee were present, with the exception of M. Hoskiær, replaced by M. C. V. JENSEN, Director of the Control Service of Private Railways in Denmark, M. Ito and M. Speluzzi, and M. Ching-Chun Wang, replaced by M. C. N. Lou, Technical Adviser of the Chinese delegation to the Assembly of the League of Nations.

The following also attended :

For the International Labour Office :

M. Henri FUSS, Head of Section.
M. G. S. RABINOVITCH, Member of Section.
M. DRBOHLAV, Member of Section.

For the Central Commission for Rhine Navigation :

M. J. F. HOSTIE, Secretary-General.

For the International Danube Commission :

M. A. BAULE, Secretary-General.

For the International Commission for Air Navigation :

M. A. ROPER, Secretary-General.

For the Central Office for International Transport by Rail :

Dr. R. FURRER, Manager.

For the International Touring Alliance :

M. E. DELAQUIS, General Manager of the Swiss Touring Club.

For the International Association of Recognised Automobile Clubs :

Colonel G. PERON, Secretary-General.
Colonel M. O'GORMAN, Vice-Chairman, Vice-Chairman of the Royal Automobile Club of Great Britain.

For the International Air Traffic Association :

Jonkheer VAN DEN BERCH VAN HEEMSTEDÉ, General Manager.

For the International Chamber of Commerce :

M. L. DELANNEY, Head of Transport Department.
M. C. B. INGWERSEN, Member of the Committee for Transport by Rail.

For the International Aeronautical Federation :

Colonel M. O'GORMAN, Vice-Chairman.

For the International Railway Union :

M. G. LEVERVE, Secretary-General.

For the International Broadcasting Union :

Mr. A. R. BURROWS, Secretary-General.

Secretariat: M. J. L. METTERNICH, Acting Secretary-General of the Advisory and Technical Committee for Communications and Transit, assisted by M. B. LUKAČ, Mr. L. C. TOMBS and Mme. E. LEHMANN, and also by M. G. F. VAN DISSEL, Wireless Expert of the League of Nations Secretariat.

I. OPENING OF THE SESSION.

M. KRAHE, Chairman-in-office, in his opening speech, paid a tribute to the memory of M. Robert Haas. The Committee had just lost its distinguished Secretary-General, the man who, since the Barcelona Conference—which M. Haas himself had organised—had always been the inspiring force behind the Communications and Transit Organisation. He had been struck down in his prime, in the fullness of his activity. The work of the Committee's present session had been carefully prepared by his active and far-seeing intelligence, which combined a grasp of general ideas and brilliant syntheses with a capacity for minute details. Robert Haas, like many of his French colleagues in the Secretariat, had passed through the Ecole normale supérieure, that great school in the rue d'Ulm which had trained so many first-class brains for Europe. He bore its stamp, and conferred upon the work of the Transit Organisation the benefit of a high French culture. The League of Nations had lost in him one of its most far-seeing architects; the members of the Committee had all lost a guide, a fellow-worker and a friend.

The members of the Committee rose in sign of mourning and observed one minute's silence.

M. Silvain DREYFUS also desired, as a compatriot of M. Robert Haas and in his capacity as one of the oldest members of the Committee, to pay a tribute to his memory. Deeply shocked by the news of his death, of which he had only just heard, he felt that he was quite unequal to saying what ought to be said. He felt overwhelmed with grief when he recalled Robert Haas' face, when he remembered his outstanding record, his training, how he had risen gradually to the post of Director at the League of Nations, where his position was, in fact, something more than that of a director. He thought of the immense services that he had rendered and those which he would have continued to render had he lived. It was impossible to express what a disaster his death was. It was not yet possible to realise the consequences which it involved.

M. Silvain Dreyfus expressed the hope that there would be someone at the League of Nations who would be able to give the world an account of the career of the friend they had lost—to give an adequate account of his work—to make his brilliant intellect appreciated, as well as his diplomatic ability and his rare gift for finding solutions which secured unanimous agreement.

The CHAIRMAN-IN-OFFICE said he was sure he was speaking for all the members of the Committee when he proposed to express their deepest and sincerest sympathy with the family of Robert Haas and with the Secretary-General of the League of Nations.

Agreed.

The meeting was suspended as a sign of mourning.

On the resumption of the meeting, the CHAIRMAN-IN-OFFICE also paid a tribute to the memories of three distinguished collaborators of the Communications and Transit Organisation who had died since the last session—M. Chaumié, in January 1934, Dr. Elias, in August 1934, and General de Candolle, in January 1935.

The members of the Committee rose in sign of mourning and observed one minute's silence.

The CHAIRMAN-IN-OFFICE welcomed two new members of the Committee, M. Kirsanoff, who was appointed by the Government of the Union of Soviet Socialist Republics, and M. de Blanck y Menocal, appointed by the Cuban Government. He also welcomed M. Lou, who was replacing for the present session M. Ching-Chun Wang, appointed by the Chinese Government in place of M. Woo. M. de Castro, who had already replaced M. Rossi at the eighteenth session, had been permanently appointed by the Government of Uruguay as a member of the Committee.

The CHAIRMAN then asked the Committee to elect its new officers.

II. ELECTION OF OFFICERS OF THE COMMITTEE.

On the proposal of M. Herold, *the Committee, by acclamation, elected* M. KRBEČ as Chairman, and, on the proposal of M. Silvain Dreyfus, M. DE CASTRO and M. NORDBERG as Vice-Chairmen.

III. PROGRAMME OF WORK.

The Committee adopted its agenda (see Annex I).

IV. REPORT OF M. KRAHE ON THE MISSIONS CARRIED OUT BY HIM AS CHAIRMAN SINCE THE LAST SESSION OF THE COMMITTEE.

M. KRAHE gave the following information with regard to the decisions that he had been called upon to take and the appointments which he had had to make in his capacity as Chairman of the Committee:

I. *Co-operation between the National Government of China and the Transit Organisation.*

The contracts of the two experts appointed by the Chairman of the Committee to represent the Transit Organisation with the National Government of China, M. Okecki and M. Bourdrez,

who have been in China since the beginning of 1932, have been prolonged successively from year to year on the Chairman's proposal, on the last occasion until the end of 1935.

M. Okecki, however, having expressed a desire to relinquish his appointment in China for personal reasons, will return to Europe about the end of this year.

On the other hand, at the request of the Chinese Government, the Chairman has appointed a group of experts of the Transit Organisation—M. OMODEO, M. NIJHOFF, M. COODE and M. COURSIN—who proceeded to China and stayed there in December 1934 and the first few months of 1935 in order to study certain questions of capital importance concerning the maintenance of roads and road transport and also hydraulic work. This group of experts will draw up the final report very shortly in consultation with M. WATIER, whom the Chairman has also appointed as a member of this Committee of Experts, and who, though unable to proceed to China himself, has co-operated with the other experts, even before their departure for China, in the examination of the documentary material and the determination of those questions to which their investigations on the spot should primarily refer, and also in the laying-down of directions for this examination and the preparation of documents relating thereto.

The Committee of Experts further consulted two well-known specialists—namely, Professor Engels, of Dresden, and Mr. Mead, of Madison (Wisconsin)—with whom M. Bourdrez was requested to get into personal touch.

As a result of this mission of experts, and in order better to co-ordinate the various recommendations on the spot with a view to their more effective application by the Chinese authorities, the Chairman has just appointed one of the experts, M. Coursin, to proceed to China for a prolonged mission before the end of this year as representative of the Transit Organisation with the Chinese National Economic Council. As the Committee is aware, this National Council is entrusted with the supervision and co-ordination of the various activities connected with the national reconstruction of the country.

2. Question of the Torontál Local Railway Company, Ltd.

The Committee decided at its last session not to continue for the moment consideration of the petition which had been submitted to the Council under Article 304 of the Treaty of Trianon by the Torontál Local Railway Company, Ltd., of Budapest, and had been referred by the Council to the Committee. The latter requested its Chairman to inform the Council of its decision. The Chairman has forwarded a communication in this sense to the Council.

3. Question of the Noskovci-Slatina-Nasice Local Railway Company, Ltd.

The Committee will remember that the Council referred to the Advisory and Technical Committee the petition submitted to it by the Noskovci-Slatina-Nasice Local Railway Company, Ltd., of Belgrade, under Article 304 of the Treaty of Trianon, in order that it might draw up a report which would enable the Council to take a decision with a full knowledge of the facts. The Advisory and Technical Committee decided at its last session to request its Chairman to appoint the experts who should be members of the Committee set up to study the question relating to the petition.

M. ELIAS, Secretary-General of the Netherlands Railways, and M. GRIMPRET, at that time State Councillor, Director-General of Railways at the French Ministry of Public Works, kindly responded to the Chairman's invitation, and a meeting took place at Geneva on March 24th, 1934, between these two members and the Chairman, in order to proceed to the study in question. The report of this Committee is included in the agenda of the present session.

4. Renewal of the Contract of the Member of the Memel Harbour Board appointed by the Chairman of the Committee.

Annex II, Article 5, of the Memel Convention states that there shall be a Harbour Board which shall consist of three members appointed for three years and eligible for reappointment, and that one of these members shall be appointed by the Chairman of the Committee for Communications and Transit. The term of office of M. WIDDING, who has held this post since 1928, having expired on March 31st, 1934, the Chairman has decided to prolong it as from April 1st, 1934, for a further period of three years. M. Widding's salary is borne on the budget of the port of Memel, and accordingly the Chairman, before fixing it, officially consulted the Lithuanian Government in accordance with the provisions of Annex II, Article 9, of the Memel Convention.

5. Juridical and Administrative Systems in force on the Frontier Sections of Railway Lines and at Junction Stations.

In view of the terms of reference conferred on the Permanent Committee for Transport by Rail by the Advisory and Technical Committee with a view to the study of the question of drawing up standard conventions for railway frontier traffic, the Chairman of the Permanent Committee thought it would be impossible to achieve useful results unless the Committee was in possession of the fullest possible documentary material bearing on the legal provisions governing the question in various countries and comprising a methodical study of the main ideas and guiding principles to be deduced from the information collected.

Considering that the importance and complexity of the problem necessitated a thorough study, especially as this matter had never been dealt with on international lines, the Chairman agreed with the view of the Chairman of the Permanent Committee for Transport by Rail, and has consequently requested the Secretariat to collect the legislative material in question by means of individual consultation and to classify it systematically in a detailed study.

6. *Appointment of an Arbitrator at the Request of the Oesterreichisches Kuratorium für Wirtschaftlichkeit.*

The Oesterreichisches Kuratorium für Wirtschaftlichkeit invited the Chairman, should occasion arise, to appoint an arbitrator to preside over an arbitral tribunal to decide disputes between the organisers (*viz.*, the Oesterreichisches Kuratorium) and the participants in an international motor race with substitute fuels (*Ersatzbrennstoffe*) in the autumn of 1934 in the Austrian Alps.

The Chairman accepted the office of arbitrator in accordance with the proposal of the Oesterreichisches Kuratorium.

7. *Pollution of the Sea by Oil.*

The Committee will remember that, as a result of the discussion which took place in the Second Committee, the 1934 Assembly instructed the Transit Organisation to make a preliminary enquiry, to be followed by a meeting of a committee of experts.

The Chairman accordingly invited persons¹ with special qualifications in the matter to study the question, and the Committee of Experts thus formed met at Geneva on November 19th, 1934.

Subsequently, the Chairman arranged for the Memorandum drawn up by the Committee of Experts to be transmitted to the Council, and for the Secretary-General of the League to send to States Members and non-members a questionnaire drawn up by the Committee.

In order to give effect to the resolutions of the 1935 Assembly and the Council which followed it, the Chairman called a second session of the Committee of Experts on October 21st, 1935. As American expert, the Committee had the benefit of the services of Mr. P. T. CULBERTSON, who replaced Captain Keppler, the latter being unable to attend the second session. The Chairman thought it desirable further to add a Norwegian member—M. D. PAUST, shipowner—to the Committee for the second session.

8. *Air Transport Co-operation Committee.*

The place of M. Chaumié, Director of French civil aviation, deceased, was taken in June 1934 by the new Director, M. Louis COUHÉ.

9. *Despatch of Certain Questionnaires.*

At the Chairman's request, the Secretary-General of the League communicated by Circular Letter the questionnaires which had been drawn up by the competent departments of the Transit Organisation on the following questions :

- (a) Protection of level crossings (February 1934) ;
- (b) Customs examination for liquid fuel used in air traffic (July 1934) ;
- (c) Mechanical light signalling at cross-roads (July 1935).

10. *Appointment of Representatives to the Sixteenth International Congress on Navigation, held at Brussels, September 2nd to 9th, 1935.*

The Committee was, as usual, represented by a delegation at this Congress. The Chairman appointed as its representatives M. SCHLINGEMANN, delegate of the Committee on the Permanent Commission of Navigation Congresses, and M. LUKAČ, a member of the Secretariat. Special reference was made by the Honorary President of the Congress in his opening speech to the presence of the Committee's delegation. M. Schlingemann, in his turn, speaking at the final meeting of the Congress, indicated his appreciation of the results of the work done and of the Committee's interest therein. The presence at the Congress of a large number of persons connected with navigation and public works enabled the Committee's representatives to renew relations and establish fresh contacts of value to the work of the Transit Organisation.

¹ Mr. C. H. GRIMSHAW, Deputy Assistant-Secretary, Board of Trade, *Chairman* ;
M. S. GIACCHETTI (Italy), Port Captain, Head of the Mercantile Marine Division at the Ministry for Communications ;
Captain Y. ISHIKAWA (Japan), Engineer Commander ;
Captain Chester H. G. KEPPLER, U.S.N. (United States), Naval Attaché at the United States Embassy at Berlin ;
Captain F. V. H. LAUB (Denmark), General Manager of the port of Copenhagen ;
M. P. H. WATIER (France), Counsellor of State, Director of Navigable Waterways and Maritime Ports in the Ministry of Public Works, replaced by M. C. LEMOINE, Inspector-General of Roads and Bridges ;
M. M. YOKOYAMA (Japan), Consul-General at Geneva, replaced by M. NISHIMURA, Consul at Geneva.

II. *International Conference on the London-Istanbul Trans-European Highway, held at Budapest, September 10th to 14th, 1935.*

The Committee and Secretariat of the League were invited by the Hungarian Government to send representatives to the International Conference at Budapest. Acting on the proposal of the Chairman of the Permanent Committee on Road Traffic, the Chairman of the Advisory Committee appointed M. A. VALSINGER, member of the Permanent Committee, to represent the Committee at the Conference. M. Valsinger made a very full report to the Permanent Committee on his mission, which is at the disposal of any members of the Committee who may desire to see it.

The Secretariat was unable to accept the Hungarian Government's invitation, since the meeting of the Conference coincided with the meeting of the League Assembly.

12. *Appointment of a Representative of the Transit Organisation on the Committee set up by the International Institute of Rome for the Unification of Private Law to consider the Question of the Civil Liability of Motorists (Third-party Risks).*

M. ROTHMUND, member of the Permanent Committee on Road Traffic, represented the Transit Organisation at the first meeting of this Committee.

13. *Appointment of a Representative on the Seventh International Road Congress, held at Munich in 1934.*

M. Nordberg, representative of the Transit Organisation on the Permanent International Association of Road Congresses, having been prevented from attending the Munich Congress, the Chairman appointed for that purpose M. BOURDREZ, assistant representative of the Transit Organisation on the National Economic Council of China, who was then in Europe on official duties.

* * *

M. Lou expressed his great satisfaction on hearing the statement of the retiring Chairman particularly on the passage relating to collaboration between the Communications and Transit Organisation and the National Government of China. He desired to take that opportunity of saying how much his Government appreciated the assistance which had been given to it by the Transit Organisation and the great services rendered to China by the able men sent there by the League of Nations and by the various specialists who had worked in China.

He also desired to pay a tribute to the memory of M. Robert Haas, whose assistance had been highly appreciated by the Government and people of China. In his recent extremely objective report,¹ M. Haas had set forth the results obtained in recent years in the work of national reconstruction, particularly owing to the efforts made by the National Government of China. That Government was most grateful, and hoped that the work which had been so satisfactorily set in hand with the collaboration of the Transit Organisation would be continued in the future as in the past.

Lastly, M. Lou informed the Committee that M. Haas' report had already been forwarded to the National Government of China, which would certainly communicate its observations on the subject to the Committee in due course.

The CHAIRMAN, on behalf of the Committee, thanked M. Krahe for the work carried out by him during the last session of the Committee and for his activities during the interval between the eighteenth and nineteenth sessions.

The Committee took note of the report of the retiring Chairman.

V. REPORT OF THE PERMANENT COMMITTEE FOR TRANSPORT BY RAIL
ON ITS EIGHTH SESSION, HELD AT GENEVA FROM MAY 28TH TO 31ST, 1935.²

M. HEROLD, Chairman of the Permanent Committee, commented briefly on the report.

(a) *Twelfth Session of the International Association of the Railway Congress, held at Cairo in January 1933.*

The Committee would have an opportunity of once more taking up the problem of competition between railway and motor transport when it examined the question of co-ordination of transport, which was on the agenda of the present session.

(b) *Signals at Level Crossings.*

This question would once more be considered when Point 3 of the agenda was discussed : " Report of the Special Committee for the Study of Signals at Level Crossings ".

¹ Document C.410.M.206.1935.

² Document C.293.M.156.1935.VIII.

(c) *Facilities to be granted for the Transport of Cases containing Samples.*³

The Permanent Committee was of opinion that that question did not call for any action on its part. The plenary Committee would doubtless approve that decision.

M. INGWERSEN (International Chamber of Commerce) said that the Railway Committee of the International Chamber of Commerce would meet on February 3rd, 1936, to consider the question of the tariff regime for the transport of cases of samples.

(d) *Drawing-up of Standard Conventions on Frontier Traffic by Rail.*¹

M. HEROLD gave an account of the past history of the question. At its fifteenth session, in September 1930, the Advisory and Technical Committee had adopted a resolution whereby the question which had been raised by M. Grünebaum (then a member of the Committee) relating to the framing of standard conventions on frontier traffic by rail was referred for consideration to the Permanent Committee for Transport by Rail. M. Grünebaum had prepared a memorandum giving a general outline of the problem, which also drew attention to the difficulties in the way of an international settlement. The Secretary of the Permanent Committee collected very full documentary material and prepared a detailed survey of the legal and administrative regime of frontier sections of railway lines and frontier junction stations. On the basis of this survey, a small Committee, presided over by the Chairman of the Permanent Committee for Transport by Rail, prepared a report. During its work, this Committee decided, by agreement with M. Grünebaum, to abandon the original idea—that is to say, an attempt to draw up a standard convention on frontier traffic by rail. The Permanent Committee decided to approve the results of the survey and the report of the small Committee and to associate itself with the latter's conclusions. It also decided to forward these documents to the Advisory and Technical Committee, expressing the hope that they might as far as possible be used as a means of bringing about the agreements still lacking and in general of facilitating the solutions most in keeping with the common interest and the interests of the railway administrations.

M. LEVERVE (International Railway Union) mentioned that the small Committee for the study of the preparation of standard conventions on frontier traffic by rail had done some work which would, in all probability, be extremely useful to railway administrations when they were dealing with the special cases that still arose at various points on frontiers.

(e) *Conference for the Revision of the Berne International Conventions (C.I.M. and C.I.V.) opened at Rome on October 3rd, 1933.*

The Advisory and Technical Committee would doubtless wish to associate itself with the recommendation made by the Permanent Committee to the effect that States which had not yet acceded to these Conventions or had not yet ratified them should remedy this omission as soon as possible, in order to enable an agreement to be reached regarding the date of the coming into force of the said Conventions. That was particularly important, since the new Convention on Transport of Goods would constitute the indispensable legal basis for the carrying of traffic on negotiable transport documents, to which the competent organs of the League of Nations had attached great importance for several years past.

M. INGWERSEN (International Chamber of Commerce) referred to the work of the Special Committee set up by the International Chamber of Commerce for the revision of the Berne Conventions. The report of that Committee had been submitted to the Rome Conference. The International Chamber of Commerce was of opinion that the question should be discussed in collaboration, not only with representatives of the railway administrations, but also with those of clients of the railways, in view of the great economic importance of the problem.

M. Silvain DREYFUS remarked that, by a Law dated July 19th, 1935, France had approved the Berne Conventions as amended.

On the proposal of the CHAIRMAN, *the Committee adopted the following resolution:*

“ The Advisory and Technical Committee,

“ Having discussed the report of its Permanent Committee for Transport by Rail on its eighth session, held from May 28th to 31st, 1935 :

“ (1) Takes note of the said report and endorses its conclusions ;

“ (2) Emphasises, in agreement with the Permanent Committee, more particularly the urgency of the ratification and application at the earliest possible date of the new C.I.M. and C.I.V. Conventions drawn up at Rome in 1933 with a view to achieving, in the sphere of transport and national economic life in general, the progress which those Conventions represent,

“ And requests the Council to draw the attention of Governments to this question ;

“ (3) Emphasises the importance of the enquiry conducted by the Secretariat and the Permanent Committee in pursuance of a resolution adopted by the Advisory and Technical Committee in September 1930 regarding the possibility of framing model Conventions on

¹ Document C.144.M.75.1935.VIII.

the subject of frontier traffic by rail, and, while agreeing with the Permanent Committee that, in view of the diversity of the essential circumstances governing individual cases, it would be inadvisable to recommend any standard Convention whatsoever ;

“ Requests the Council to recommend Governments, when informing them of what has been done, to avail themselves to the full, when concluding future Conventions, of the material collected and the general schema drawn up in the course of the said enquiry.”

VI. ANNUAL REPORTS OF THE MEMEL HARBOUR BOARD FOR 1933 AND 1934.

The Committee took note of the annual reports of the Memel Harbour Board for 1933 and 1934.

VII. AGREEMENTS, CONVENTIONS, ETC., CONCLUDED UNDER THE AUSPICES OF THE LEAGUE OF NATIONS : POSITION AS REGARDS SIGNATURES, RATIFICATIONS AND ACCESSIONS.

The CHAIRMAN reminded the members of the Committee that they had received a list of the international undertakings concluded under the auspices of the League of Nations, which showed which States had become contracting parties, which were the States whose signature or accession had not yet been followed by ratification, and which were the States which might accede to such Conventions, and any reservations, etc., which States had made before their signature, ratification or accession.¹ That list showed the situation at the end of August 1935. Furthermore, documents containing the information given by States which had signed but not ratified a Convention concluded under the auspices of the League of Nations as to their intentions in the matter of the ratification of these instruments had also been communicated to the Committee.²

The ACTING SECRETARY-GENERAL of the Committee added that the members of the Committee had previously received the list of multilateral Conventions, agreements, etc., connected with the question of communications and transit.³ This list, while not exhaustive, was the result of the Secretariat's consultation of very many sources of information and would doubtless prove of some value.

In order to keep this list up to date as regards both new Conventions to be included and changes to be noted relating to Conventions already included in the list, particularly in the case of lists of States parties to such Conventions, the Secretariat intended to draw up an addendum to the list in question at the end of each year. Nevertheless, with a view to the present session of the Committee, the first addendum had been prepared a little earlier this year, on the basis of the information collected up to the end of October, and had just been distributed to the members of the Committee.⁴

VIII. POSITION OF THE WORK CONCERNING COMMUNICATIONS OF IMPORTANCE TO THE WORKING OF THE LEAGUE OF NATIONS.

(a) *Communications at Times of Emergency.*⁵

The Committee took note of the information contained in the systematic statement on the regime of communications of importance to the working of the League of Nations at times of emergency.

(b) *Reports on the Operation of the League of Nations Wireless Station.*⁶

The Committee took note of the reports on the operation of the League Wireless Station.

IX. POSITION OF THE INVESTIGATIONS REGARDING THE CONSTITUTION OF A MAIN NETWORK OF PERMANENT AIR ROUTES.

The CHAIRMAN drew the attention of the Committee to the survey of “ The Economic Position of Air Transport in Europe ”⁷, which had been submitted to the special Sub-Committee for consideration of the constitution and operation of a main network of permanent air routes by M. Henri Bouché, director of the review *L'Aéronautique*.

M. Silvain DREYFUS expressed his admiration of this survey. He further reminded the Committee that, in 1931, the special Sub-Committee had instructed M. Bouché to prepare a survey dealing with the following three points :

(a) Present methods of operating air communications in the proposed international network ;

¹ Document A.6(a).1935.V. Annex, of October 28th, 1935.

² Documents A.13.1934.V and *addendum* and A.17.1935.V.

³ Document R.R./C.T.6.

⁴ Document R.R./C.T.6(a).

⁵ Document C.348.M.161.1934.VIII.

⁶ Documents A.8.1934.VIII and A.9.1935.VIII.

⁷ Document C.97.M.44.1935.VIII.

(b) Programme and cost of the installation and working of the ground organisation for the network ;

(c) Minimum operation programme, taking account of the economic possibilities of the network and calculating successively the effect of new agreements for pooling between companies, of a network in which all overlapping of operating services is avoided, and, assuming these two requisites to be attained, of new material closely adapted to the nature and extent of the air traffic.

M. Bouché's survey had dealt only with the first of these points. M. Silvain Dreyfus drew attention to the interest attaching also to the two points referred to under (b) and (c). On the other hand, before examining the question, he thought that the Committee should wait until the Sub-Committee had had an opportunity of expressing its views on M. Bouché's report.

M. HEROLD said that he also had read with great interest M. Bouché's report, which was remarkably unbiased. He drew special attention to a point connected with the general question of rationalisation of transport. By reason of the great development of motor traffic and of aviation, there was at present a plethora of means of communication, from which all concerned suffered. M. Bouché's survey emphasised the importance of the direct subsidies which air transport lines received from Governments. M. Herold did not criticise that state of things, for the importance of maintaining an adequate air transport system was obvious ; nevertheless, if transport by air was compared with transport by rail or by motor, account should be taken of the fact that the former could exist only by reason of the grants that they received. It was absolutely necessary, in matters connected with air transport, to proceed with caution in order to avoid over-development, which, besides the expense it involved, would aggravate the general transport crisis.

M. SINIGALIA expressed agreement with M. Herold's observations. He drew the Committee's attention to the last two paragraphs of page 11 of M. Bouché's survey, in which it was shown that the data collected were sometimes difficult to use for purposes of comparison. He was not sure, therefore, what value should be attached to the survey with reference to future decisions.

M. VAN DEN BERCH VAN HEEMSTEDÉ, representing the International Air Traffic Association, pointed out that the statistics which appeared in M. Bouché's report ended with the year 1932. He was very happy to be able to tell the Committee that since that time the figures for the receipts of the various air transport lines had considerably increased ; in some cases, in spite of the crisis, the increase represented more than 100%. It was true that air transport was still subsidised at the present time, but, if it continued to develop as it was doing at present, the companies hoped that, in a not too distant future, they would be able to carry on without any subsidies ; indeed, it was towards that goal that all their efforts were tending. M. van den Berch van Heemstede added that the companies were collaborating more and more by means of "pools"—a system which made it possible to avoid duplication and needless competition.

The Governments were giving very full attention to the question of ground organisation, and M. van den Berch van Heemstede did not think that an international solution was required.

As for the question of "new material closely adapted to the nature and extent of the air traffic", the various Governments were making suggestions to the companies for their guidance in accordance with the national interests. Those suggestions naturally varied as between one country and another.

The CHAIRMAN pointed out, in connection with the observation made at the beginning of M. van den Berch van Heemstede's statement, that M. Bouché's report contained a second part concerning the position of air transport in 1933, and that the last paragraph (page 73 of the report) mentioned that "no official figures for the whole of 1934 are available as I conclude this survey, but I feel I can say that the advance made in 1933, as compared with 1932, has not as a whole been maintained either in respect of quantity or of quality (quality being, *ex hypothesi*, represented by the degree of financial autonomy) ; the European network considered by the Committee is undoubtedly just as far away from independence, and its economic activity is no higher at the end of 1934 than it was two years earlier".

He agreed with M. Silvain Dreyfus that the Committee was not called on to take any decision at the present time. The special Sub-Committee, which had not yet had an opportunity of examining M. Bouché's report, would continue its work and would later communicate its findings to the Committee. M. Bouché's report had been communicated to them only for information ; the Committee should confine itself to taking note of it, while stressing the interest attaching to the work that had been done.

The Committee agreed, and adopted the following resolution :

"The Advisory and Technical Committee,

"(1) Congratulates M. Henri Bouché on his valuable memorandum on the economics of air transport in Europe ;

“ (2) Reserves its right to return to that question when the competent Committees have examined M. Bouché's report, and also to the following two questions :

“ (a) Programme and cost of the installation and working of the ground organisation for the network ;

“ (b) Minimum operation programme and minimum programme of new material closely adapted to the nature and extent of the air traffic,

“ Which remain on the agenda of the special Sub-Committee for the study of the question of the constitution and operation of a main network of permanent air routes.”

X. CUSTOMS EXEMPTION FOR LIQUID FUEL USED IN AIR TRAFFIC.

The CHAIRMAN gave a summary of the Secretariat's report on this question (Annex 2).

Mr. KEANE said that his Government took a very great interest in that question, the study of which, in his opinion, was sufficiently advanced to enable it to hope for an agreement between European States. He proposed that the Committee should instruct its Chairman to request the Council of the League of Nations to take the necessary steps in order that an agreement between European States on the basis of the text which had at one time been submitted to their Governments might be concluded with the least possible delay. This might be done either by opening a protocol for signature or, if necessary, by convening a conference.

M. VAN DEN BERCH VAN HEEMSTEDÉ, representing the International Air Traffic Association, was of opinion that a further step might even be taken. Just as in the case of maritime navigation there were free ports and free zones in ports, provision might be made for the establishment of such zones in certain international air-ports situated on the main international lines where there were bonded warehouses for liquid fuel and spare parts, so that aircraft might take in petrol and land there without having to go through Customs formalities.

Colonel O'GORMAN, representing the International Aeronautical Federation, wholly associated himself with the proposal. It was of great interest to the Federation, which had already studied the possibility of such a solution.

Mr. KEANE said that he recognised the importance of the questions raised by M. van den Berch van Heemstede and Colonel O'Gorman, but he was afraid that, by extending the scope of the question, they might delay the execution of the concrete proposal that the Committee had before it.

M. INGWERSEN, representing the International Chamber of Commerce, supported Mr. Keane's proposal. Since 1931, the International Chamber of Commerce had studied the general question of obstacles to air transport, particularly those arising out of the diversities in existing Customs regulations as to liquid fuel and lubricating oil in the tanks of aircraft. Amongst the work undertaken by the International Chamber of Commerce, he would draw attention to a report submitted by Mr. Beaumont (United Kingdom) and another general report on obstacles to air transport by Mr. Plesman, Director of the K.L.M. That report was based on an investigation undertaken by the International Chamber of Commerce through its National Committees, the results of which completed the League of Nations enquiry, particularly so far as Germany, Spain, Argentine and several South-American countries were concerned. The information differed in respect of Poland. The International Chamber of Commerce had recommended an international standardisation of national regulations, which at present differed widely.

As regards more particularly the question of Customs exemption for liquid fuel, the International Chamber of Commerce, at its Paris Congress in June 1935, had adopted a resolution, the second paragraph of which read as follows :

“ . . . it would be for the general benefit of international air carriage if the principle of making no charge in respect of Customs or other duty on fuel and oil used in international air transport were adopted universally.”

M. ROPER, representative of the International Commission for Air Navigation, declared that the latter would be in favour of the conclusion of an international agreement regarding Customs exemption for liquid fuel. As regards the procedure to be followed, he thought it would be preferable to open a protocol for signature without convening a Conference. If, however, a Conference was to be convened, he agreed with Mr. Keane that it would be desirable to exclude consideration of supplementary questions such as that of free zones in air-ports.

M. Silvain DREYFUS considered that the resolution to be adopted by the Committee should make it clear that the Committee was anxious that the possible extension of the scope of application of the future agreement should not jeopardise the conclusion of the agreement, to which it attached great importance.

On the suggestion of the CHAIRMAN, the Committee adopted the following resolution, which was in accordance with the procedure proposed by Mr. Keane :

“ The Advisory and Technical Committee,

“ Having taken note of the Secretariat’s report concerning the question of Customs exemption for liquid fuel used in air traffic and the replies received from Governments to the Circular Letter on this subject sent to them on August 20th, 1934 :

“ Notes that almost all the replies are favourable to the conclusion of an agreement on the basis of the text proposed in the said Circular Letter, and is of opinion that, in these circumstances, the question might form the subject of such an agreement between European States ;

“ Therefore instructs its Chairman to approach the Council of the League of Nations in its name in order that steps may be taken as soon as possible for the conclusion of an agreement between European States on the basis of the text formerly submitted to the Governments of such States. The Committee is of opinion that this purpose might be attained either by the opening of a protocol for signature or, if it be found necessary, by the meeting of a short Conference which would enable the Governments to exchange their views on the subject before signing the text of an agreement.

“ The Committee nevertheless thinks it particularly important that, in the event of a Conference being summoned, its success should not be compromised by the extension of its programme to questions other than the draft agreement, the text of which has been submitted to the Governments for preliminary consideration.”

XI. POSITION OF THE WORK ON THE UNIFICATION OF BUOYAGE RULES.

The CHAIRMAN reminded the Committee that the draft Agreement and Regulations for the Unification of Buoyage of Coasts, drawn up by the Preparatory Committee which met in London in 1933, had been communicated by Circular Letter to the Governments of maritime countries, asking them to forward any comments they might desire to make on the subject and also whether they would be prepared to conclude an agreement on the basis of the Preparatory Committee’s proposals. The results of that enquiry (Annex 3) showed that the situation was approximately the same as at the time of the Lisbon Conference in 1931—that is to say, a group of States, most of which were European, was prepared to conclude an agreement, whereas certain other States, particularly those of North America, were not ready to accept standard buoyage regulations on the proposed basis. Some of the States which had stated that, in principle, they were favourable to the proposed draft had nevertheless proposed certain amendments to it.

M. Silvain DREYFUS noted that the replies received could be classified as follows :

Thirteen replies were favourable and made no reservations ;

Nine were favourable, but made more or less important reservations ;

Three were negative ;

One, that of the Norwegian Government, was more or less negative, but said that, if the Convention were accepted by the majority of European countries and particularly by countries that were neighbours of Norway, the Government of that country would endeavour gradually to put as many as possible of the proposed regulations into force ;

Three Governments had made no comments on the matter.

In those circumstances, M. Silvain Dreyfus thought it could be assumed that an agreement would in all likelihood be signed by a fairly large number of countries, but he was not of opinion that a new Conference, which would be likely to reopen the discussion on questions of substance, would be advisable. He thought that the best procedure would be to amend the Preparatory Committee’s draft in the light of the Governments’ comments.

In accordance with these suggestions, the CHAIRMAN proposed that a small committee composed of certain members of the Preparatory Committee which had drawn up the draft agreement and regulations should be instructed to prepare a new text. It was understood that that committee would take into account the amendments proposed by Governments. The new text would in due course be communicated to those Governments which had declared that, in principle, they were prepared to conclude an agreement on the basis of the draft prepared in London, and they would be informed that a protocol for signature would be opened at Geneva on a date to be fixed later.

Agreed.

The Committee therefore adopted the following resolution :

“ The Advisory and Technical Committee,

“ Having taken note of the draft Agreement framed by the Preparatory Committee for the Unification of Buoyage Rules at its meeting in London in 1933, together with the amendments proposed :

“ Requests its Chairman to set up a committee of experts selected, in principle, from among the members of the Preparatory Committee for the Unification of Buoyage Rules. This committee would be instructed to frame a new text, having regard to the amendments and modifications proposed by the Governments. Should the Committee think fit, this

text would be communicated to those Governments which have made known their readiness, in principle, to conclude an agreement on the basis of the Preparatory Committee's proposals. The Advisory and Technical Committee is of opinion that, for this purpose, a Protocol of Signature should be opened at Geneva at such time as shall be subsequently fixed."

XII. POSITION OF THE WORK ON MARITIME TONNAGE MEASUREMENT.

At its last session, the Committee had instructed the Chairman and Rapporteur of the Technical Committee for Maritime Tonnage Measurement to submit a report containing all observations that they might desire to make regarding the replies received from the various Governments on the document drawn up by the Technical Committee. The report had been prepared and communicated to the Committee.¹

Mr. KEANE said that his Government had not yet completed their examination of this question, which was a very complicated one. He proposed that the Committee adjourn the examination of the question to a later session.

Mr. Keane's proposal was seconded by M. SINIGALIA.

Agreed.

The Committee instructed the Secretariat to communicate the report of the President and Rapporteur of the Technical Committee for Maritime Tonnage Measurement, together with the annex to the report, to the Council and to the Governments concerned.

XIII. REPORT OF THE COMMITTEE OF EXPERTS FOR THE STUDY OF QUESTIONS RELATING TO THE PETITION SUBMITTED TO THE COUNCIL OF THE LEAGUE OF NATIONS BY THE NOSKOVCI-SLATINA-NASICE LOCAL RAILWAY COMPANY, LTD.

The ACTING SECRETARY-GENERAL of the Committee explained the position of the question as shown by the documents circulated (see Annexes 4 and 4(a)). The Committee of Three appointed by the Advisory and Technical Committee had, in April 1934, expressed the opinion that the dispute might be settled by friendly agreement; for that reason, it had not thought itself called upon to take a decision on the question whether Article 304 of the Treaty of Trianon applied in this case. It requested the parties once more to enter into negotiations with a view to arriving at an agreement. The time-limit fixed by the Committee of Three for the conclusion of a friendly agreement expired on September 1st, 1934. Since then, the Secretariat had been informed unofficially on several occasions that negotiations were in progress, which gave good grounds for hoping that a friendly agreement would be reached. Unexpectedly, however, the petitioning company had written to the Secretary-General of the League of Nations on November 1st, 1935, to say that there was no further reason to anticipate that such an agreement would be concluded.

The CHAIRMAN said that, in those circumstances, the question should again be referred to the Committee of Experts which had already examined it. One of its members, M. Elias, Secretary-General of the Netherlands Railways, had died, and the vacancy on the Committee would accordingly have to be filled.

M. HEROLD, seconded by M. Silvain DREYFUS, expressed the opinion that the time had come to settle the matter and that, without waiting for a new session of the Advisory and Technical Committee, the Chairman of the Committee should immediately be authorised to forward the report of the Committee of Experts to the Council in the name of the Committee should the Governments territorially concerned accept the conclusions of the report.

The Committee adopted the following resolution:

"The Advisory and Technical Committee,

"Having taken note of the report of the Committee of Experts set up to study a question relating to the petition, dated May 29th, 1934, submitted to the Council by the Noskovci-Slatina-Nasice Local Railway Company, together with a letter from the said company dated November 1st, 1935:

"(1) Decides to refer this question to the said Committee of Experts for consideration, it being understood that the Committee shall invite the parties to lay before it such observations as they may think desirable;

"(2) Authorises its Chairman to transmit, on its behalf, the report subsequently drawn up by this Committee to the Council of the League, provided that the conclusions of the said report have been accepted by the Governments territorially concerned;

"(3) Authorises its Chairman to complete the membership of the Committee by appointing an expert in place of the late M. Elias."

¹ Document C.308.M.135.1934.VIII and Annex.

XIV. CO-OPERATION BETWEEN THE NATIONAL GOVERNMENT OF CHINA AND THE ORGANISATION FOR COMMUNICATIONS AND TRANSIT.

*Report submitted to the Secretary-General of the League of Nations by the Director of the Communications and Transit Section, Secretary of the Council Committee on Technical Co-operation between the League of Nations and China, on his Mission in China, January-May 1935.*¹

The CHAIRMAN gave a short summary of the report which had been drawn up by M. Haas on his last mission in China. This report, which was a very full one, was of quite special interest, and he was sure that all members of the Committee would appreciate its great value.

M. LUKAČ, member of the Transit Section, said that he had little to add to the report by M. Haas, which, indeed, was of quite recent date. Co-operation with the National Government of China was proceeding in a normal manner; the representatives in China of the Organisation for Communications and Transit were collaborating with that Government and were giving it all information that might assist it in regard to questions within their competence, particularly roads, hydraulic works and the co-ordination of the various activities in progress in the country. Furthermore, a survey on a larger scale was being made at the moment, since the National Government of China had applied to the Transit Organisation for an opinion from experts specially competent in certain matters of particular importance for China. A group of four experts had proceeded to China after having previously, and in collaboration with other experts, examined the very considerable documentary material placed at their disposal. Their stay lasted from December 1934 to April 1935. The report on their mission would be ready in a few days and would be forwarded to the Chinese Government, which would then have before it a complete programme for its future activities in the fields in question. In order to assist in carrying out the measures recommended in the report, one of the experts had been entrusted with a fresh mission in China, so as to co-ordinate on the spot the measures which the National Government of China would take and to provide for technical liaison between the Transit Organisation and the Chinese National Economic Council.

M. DIETRICH DE SACHSENFELS, after having paid a tribute to the energy and perspicuity of which M. Haas had given proof during his mission in China, drew the attention of the Committee to several points in the report under discussion. He then said that the Hungarian authorities were at the disposal of the National Government of China in order to show them what had been done in the Hungarian plain with a view to protection against floods in conditions somewhat similar to those to be found in China.

The CHAIRMAN said that note should be taken of the fact that the experience acquired in Hungary was at the disposal of the National Government of China and of its experts. It was, however, for that Government to note the fact, and to make use of such information should it so desire.

M. LOU said he would communicate to his Government the remarks that had just been made.²

XV. SIGNALS AT LEVEL CROSSINGS.

Report of the Special Committee and text of the Conclusions of the Special Committee amended in accordance with the Proposals of the Chairmen of the Special Committee and of the Permanent Committees on Road Traffic and Transport by Rail (Annex 5).

Colonel O'GORMAN, representative of the International Association of Recognised Automobile Clubs, thought that the draft ought to take economic necessities into account and make provision for possible abuses of the system of stopping road traffic. Surely the Committee's main aim was to encourage the economic development of countries and not any particular form of transport at the expense of another. From an economic point of view, it might well happen that road traffic might be more important than railway traffic. Under the proposed system, however, railway companies would be empowered—although they were interested parties—to decide unilaterally to interrupt road traffic. Arrangements for the stoppage of transport by road for the benefit of transport by rail had been comprehensible in former times, when the latter mode of transport had been the more important one. At the present time, the contrary was often the case.

M. NORDBERG, Chairman of the Permanent Committee on Road Traffic, observed that, in reality, Colonel O'Gorman was raising the question of priority as between rail and road. The text under discussion was the result of the work, not only of the Special Committee, but also of the Permanent Committee on Road Traffic and the Permanent Committee on Transport by Rail, and the conclusions of those three Committees had been collated by a Committee

¹ Document C.410.M.206.1935.

² See also M. Lou's remarks under IV, page 15.

composed of the three Chairmen. Those Committees had never been called upon to decide the question of priority for one or another mode of transport, but only the technical problem of safety.

M. Silvain DREYFUS proposed to confine himself to the question dealt with in the document under discussion. He did not think that the Committee could discuss that document in detail. According to precedent, it should only consider the action to be taken on the proposals submitted to it. The question was : did the Committee think those proposals suitable subject-matter for a Convention to be submitted to the various States ? If so, the draft might first be communicated to the Governments. In that connection, the Committee should remember that the 1931 Assembly had adopted certain rules for the preparation of international Conventions concluded under the auspices of the League of Nations. The procedure laid down was that Governments should first be consulted concerning these Conventions, unless some special procedure had been stipulated by previous agreement. That was the case for Conventions concluded under the auspices of the Transit Organisation, which had a statute of its own. Moreover, the information given in 1931 by M. Haas showed that the system of consulting Governments beforehand with regard to a draft Convention had not caused fewer difficulties than the contrary system had. For his part, he would not oppose the submission of the draft Convention to Governments for examination prior to the convening of an international Conference.

M. HEROLD, replying to Colonel O'Gorman's observations, thought that there was no need at present to consider the question of priority as between rail and road ; he considered that the priority of rail over road was an established fact which could not be contested, whatever the advantages of the development of motor traffic might be.

On the other hand, the problem of signals for level crossings was a very complex one. It had been thoroughly studied by three competent Committees. The Committee was not called upon to discuss the present report in detail. It had merely to approve as a whole the programme submitted to it and take such action as might be necessary ; pointing out, perhaps, that the competent Committees had endeavoured to take into account the respective needs of road and rail, to refrain from making exorbitant demands and to remain within the bounds of financial possibilities. In fact, financial possibilities were a very serious consideration that seemed to make certain Governments hesitate.

As regards the procedure to be followed, the Committee could, he thought, accept the programme submitted to it. It had only to transmit that programme to the Council for such action as the latter might desire to take, proposing that it should be communicated to the various Governments for consideration, and that, if the Governments agreed to the suggested programme, they should participate in an international regulation of the question.

M. DE RUELLE thought that one of the great advantages of the present draft was that it did not make any innovations either in the matter of signals or of colours. The draft, however, need not be taken too rigidly in its details of application. Moreover, financial possibilities must be taken into account, because they were of prime importance, particularly in countries with a very dense system of railways. With those reservations, he agreed with the proposal to refer the draft to the Council, with a generally favourable expression of opinion.

M. NORDBERG said that M. Jensen had communicated to him a Danish scheme under which, in three years' time, there would be installed in Denmark 1,000 signals for the same purpose as that contemplated in the plan now under discussion.

M. MODEROW thought that, as not all the interested States had been represented during the course of the previous work, the Committee should discuss the question very thoroughly, because the draft sent to the Council would to a certain extent bear the imprint of the Committee's authority. He had been instructed by the competent organs of his Government to make certain suggestions to the Committee. The Polish Government was quite prepared to accede to a Convention on the subject and to accept the present amended draft. It did think, however, that a Convention regulating only the question of signals for each category of level crossings was not enough. In view of international communications, and in the interests of safety, certain principles ought to be laid down for the classification of roads and railways and the determination of the categories in which the various kinds of level crossings should be placed. The Committee might fear that that would retard the settlement of the problem, but even so the question should not remain in suspense. He proposed that it should be submitted forthwith either to a Special Committee for study or to another organ for the purpose of preparing a future draft.

M. NORDBERG said that both the Special Committee and the Permanent Committees on Road Traffic and on Transport by Rail included a number of specialists in railway matters. Moreover, the present draft had passed through several stages of preparation and might be regarded as having been prepared with very great care. If the discussions were to be reopened, the conclusion of a Convention would be retarded. Moreover, the projected conference would not be bound to accept the proposals submitted to it exactly as they stood. It might, if it thought fit, amend them.

M. HEROLD thought that the points which would have to be taken into account for the placing of a level crossing in one or another of the three categories contemplated in the Special

Committee's report were so diverse that they could not be defined in advance. Governments and administrations, conscious of their duties and financial possibilities, would have to be left to decide for themselves, if necessary, which level crossings could be provided with gates and which should be placed in category 2 or 3. M. de Ruelle's remarks had confirmed his own impression that the Governments should be consulted beforehand. Their replies would show whether the present proposal could be used as a basis for drawing up international rules.

M. Silvain DREYFUS agreed with M. Herold's observations. The additional study contemplated by M. Moderow might lead to an indefinite adjournment of the framing of an international convention which all desired to see concluded.

M. MODEROW explained that he was not asking that Governments should be bound by rigid and compulsory rules, but only that certain general principles should be laid down. He also thought that it would be better for the present to obtain a result on the basis of work already done, but he did ask that the question he had raised should not be left in suspense. He thought, moreover, that the question could be answered even within the framework of the present draft. The recommendations made by the Special Committee set out in Chapter III of Annex 5 *a* would certainly be laid before the Conference, and it would be quite possible to add a clause indicating certain principles to be borne in mind when placing a level crossing in a given category, from the point of view of safety and the volume of international traffic.

M. NORDBERG explained that some of the recommendations contained in Chapter III might also be embodied in the proposed Convention; in particular, the recommendation concerning the desirability of reducing the number of level crossings to a minimum. The various recommendations could be classified in their order of importance at the suggested Conference.

The CHAIRMAN, summarising the discussion, noted that the Committee approved the programme which had been referred to it as the basis of an agreement to be submitted to Governments. As regards procedure, in view of the difficulties mentioned by various members of the Committee—particularly difficulties of a financial nature—it would, he thought, be wise to invite the Governments to say whether they were able to take the present text as the basis for an international arrangement and to communicate to the Council such observations as they might desire to make. In the light of their replies, the Council, or possibly the Advisory and Technical Committee, could decide whether further steps should be taken with a view to concluding a Convention of that kind.

Finally, perhaps M. Moderow would agree that the Permanent Committee on Road Traffic should be asked to consider at its next session whether the various questions it had mentioned needed to be studied in greater detail.

M. MODEROW approved the Chairman's suggestion.

M. HEROLD asked that the Permanent Committee on Transport by Rail should also be consulted.

Agreed.

The Committee adopted the following resolution:

“ The Advisory and Technical Committee,

“ Taking note of a report drawn up by a Special Committee with a view to the establishment of an efficient international signalling system at level crossings, together with the amendments to that report proposed jointly by the Chairmen of the said Special Committee, the Permanent Committee on Road Traffic and the Permanent Committee on Transport by Rail:

“ (1) Approves the conclusions submitted to it and recognises the necessity of reaching a uniform solution of the problem in the near future;

“ (2) Submits the report as amended to the Council, while at the same time requesting it to consult the Governments thereon and to enquire whether, in their opinion, the programme drawn up might usefully be taken as a basis for the conclusion of an international convention on the subject, and whether the Governments would, if called upon, be prepared to take part in a Conference convened by the League of Nations for this purpose.”

XVI. GERMAN REPRESENTATION ON THE INTERNATIONAL COMMISSION OF THE DANUBE
QUESTION RAISED BY THE GOVERNMENTS OF THE UNITED KINGDOM,
FRANCE, ITALY AND CZECHOSLOVAKIA (see Annex 6).

The CHAIRMAN, after giving an account of the past history of the question, read the provisions of Article 18 of the Statute of the Communications and Transit Organisation, which is applicable to this case.

Under paragraph (*a*) of § I, the request of an applicant State must be addressed to the Secretary-General of the League, who transmits it to the Advisory and Technical Committee. The Government concerned may be invited to submit, within a certain time, any observations it may deem fit. That had been done. In a letter dated September 18th, 1935, the Secretary-

General informed the German Government of the request of the Governments concerned, asking it to send to the League any observations it might wish to make in connection with the presence of a representative of the German Government on the Advisory and Technical Committee when the latter came to examine the question in conformity with paragraph (b), § 1, of Article 18, and asked that a reply might be sent not later than November 1st. As the German Government had taken no action on that letter, the Advisory and Technical Committee necessarily concluded that the German Government had in effect decided not to send a representative to the Committee.

Finally, Article 18, § 1 (c), laid down the procedure to be followed by the Committee.

M. DIETRICH DE SACHSENFELS raised the question of the Committee's competence in the matter. He considered that the Committee was essentially a technical one. The present question was, in his opinion, of a political nature and was therefore a matter for the Council. He would be particularly glad to hear the views of M. de Ruelle on the subject.

The CHAIRMAN pointed out that the Secretary-General of the League had been quite right in referring the matter to the Advisory and Technical Committee on Communications and Transit. Moreover, the Commission had often had to deal with legal questions: one of its Committees, in fact, had been appointed specially to study such questions.

M. Silvain DREYFUS said that the Committee's competence was defined in certain specific texts. Article 376 of the Treaty of Versailles laid down that "disputes which may arise between interested Powers with regard to the interpretation and application of the preceding articles shall be settled as provided by the League of Nations". In a resolution dated December 9th, 1920, the Assembly of the League had decided that the Advisory and Technical Committee on Communications and Transit would be entrusted with the investigation of any disputes which might be referred to the League under the articles of the Treaty of Versailles which dealt with communications and transit questions, in which case the Advisory and Technical Committee was to endeavour to adjust such disputes, wherever possible, by conciliation. Consequently, the question whether the Committee was legal or technical in character did not arise. The only fact that had to be considered was that it had been given particular competence, in formal terms, to deal with cases such as the present one.

M. DE RUELLE expressed the view that the Committee was fully competent to deal with the matter, which was obviously a communications and transit question. The fact that the present problem involved legal questions did not detract from the Committee's competence.

In the present dispute, however, the Committee had to endeavour not so much to discover what the actual situation was at law, but rather to effect conciliation between the parties. That was the Committee's essential duty. As one of the two parties, though duly invited, had not appointed a representative and was absent, the question arose whether conciliation was possible. Doubtless Article 18 of the Statute of the Transit Organisation did not entirely exclude the possibility of endeavouring to effect conciliation in a dispute when one of the two parties failed to appear; but, in the present case, he suggested that the Committee should merely note that, as Germany was not represented, the Committee had been unable to fulfil its mission of conciliation.

Mr. KEANE said that he could not accept the allegation that the present question was of a political nature. It was solely a matter of the legal interpretation of existing texts and their application to present circumstances. He therefore entirely agreed with M. de Ruelle's suggestion.

M. DIETRICH DE SACHSENFELS, while observing that the difference between political and legal questions was often a matter of phraseology, admitted, in the light of the explanations given, that the Committee was competent. He also recognised the impossibility of endeavouring to effect conciliation in the absence of one of the parties.

The CHAIRMAN thought that, notwithstanding M. de Ruelle's and Mr. Keane's observations, the Advisory Committee would prefer to appoint a small committee of three of its members to consider in greater detail the possibility of effecting conciliation, examining the question in the light of the nature of the dispute and not simply from the standpoint that one of the parties had not thought fit to send a representative. That latter fact was not, under the terms of Article 18 of the Statute, sufficient to exclude all efforts at conciliation on the part of the Commission, which, even in those circumstances, might endeavour to form an opinion on the dispute and submit it to those concerned. The proposed small committee might present the result of its work to the Advisory Committee at the present session. He suggested that the small committee should consist of M. de Vasconcellos, M. Herold and M. Nordberg, whose countries were not directly concerned in the matter.

M. DIETRICH DE SACHSENFELS thought that the small committee could not go into the fundamentals of the question, as they were too complex; the committee should rather consider whether it was possible to hope for conciliation, and, if so, by what means that result could be brought about.

M. Silvain DREYFUS also thought that the small committee should be asked not to give a legal opinion, but to consider the possibility of settlement by conciliation, as provided in the relevant texts.

The Chairman's proposal was approved.

XVI (a). REPORT OF THE COMMITTEE OF THREE.

M. DE VASCONCELLOS, Chairman of the Committee of Three appointed to study the question, explained that the Committee found that the German Government had not replied to the invitation addressed to it by the Secretary-General of the League. The question whether the Committee was empowered to deal with the substance of the matter must be answered in the affirmative, in view of the provisions of the Treaty of Versailles and the Assembly resolution of December 9th, 1920. On the substance of the question, however, there was no possibility of reconciling the two views as to the representation of a State on a committee—namely, that there should be two representatives or that there should be only one—since the advocates of the two views maintained their respective positions. The only thing to be done was to note the impossibility of any reconciliation of the two views on the substantive question. As the Assembly resolution to which he had referred laid down that in these circumstances there was a body to which the parties could appeal for a decision, the Committee of Three thought that that body should be resorted to.

The proposal of the Committee of Three was then read, and adopted by the Committee with slight drafting amendments as follows :

“ The Advisory and Technical Committee,

“ Having considered the dispute which arose in the International Danube Commission regarding German representation on that Commission and which was brought before the Advisory Committee by the Governments of the United Kingdom, France, Italy and Czechoslovakia in application of Article 376 of the Treaty of Versailles and in accordance with the resolution adopted by the Assembly of the League of Nations on December 9th, 1920, with a view to setting in motion the conciliation procedure of the Communications and Transit Organisation ;

“ After considering the letters, memoranda and annexed documents transmitted to it for this purpose by the four Governments mentioned above :

“ Notes that the German Government has not responded to the invitation sent to it by the Secretary-General of the League of Nations, under Article 18 of the Statute of the Organisation for Communications and Transit, to submit any observations it might deem fit and to nominate a representative on the Committee for the purposes of the dispute, with a view to conciliation ;

“ Points out that, notwithstanding the German Government's omission to take such action, the Committee may, under the above-mentioned article, proceed to examine the substance of the question and further that there is no reason for the Committee to refrain from such examination ;

“ In virtue of Article 376 of the Treaty of Versailles and in accordance with the resolution adopted by the Assembly of the League of Nations on December 9th, 1920 :

“ Expresses the opinion,

“ That the dispute which arose in the International Danube Commission regarding German representation on that Commission cannot, in view of the circumstances of the case, be settled by conciliation.

* * *

“ The Committee instructs its Chairman to take such action as is required to give effect to this decision.”

XVII. REPORTS OF THE PERMANENT COMMITTEE ON ROAD TRAFFIC ON ITS NINTH AND TENTH SESSIONS.

On the proposal of the CHAIRMAN, *the Committee decided to consider the two reports chapter by chapter*, except where the same question was dealt with by the Permanent Committee at both sessions, in which case the Committee would discuss the question as a whole.

A. Report on the Ninth Session.¹

I. Communications regarding the Action taken on the Resolutions adopted by the Committee at its Eighth Session.

The Committee had no observations to make.

¹ Document C.276.M.143.1935.VIII.

2. *Instruments adopted at the European Conference on Road Traffic: Present Situation with regard to Signatures, Ratifications or Accessions.*

M. Silvain DREYFUS announced that France had ratified the Convention of March 30th, 1931, concerning the Unification of Road Signals and had signed the Agreement between Customs Authorities of March 28th, 1931, to facilitate the Procedure in the case of Lost or Undischarged Triptychs.

On the other hand, France had not ratified the Convention of March 30th, 1931, on the Fiscal Regime of Foreign Motor Vehicles. In this matter, the French Government admitted the force of the arguments put forward by the International Association of Recognised Automobile Clubs in connection with its suggestion to Governments which had not yet ratified the Convention not to do so, but to conclude instead reciprocal agreements granting exemption from taxation on road traffic without insisting on the use of the fiscal permit.

The Committee took note of this statement.

3. *Signals at Level Crossings.*

The CHAIRMAN reminded the Committee that the question had already been dealt with under another heading, and that there was no occasion for any new decision in the matter.

4. *Road Signal Questions.*

The CHAIRMAN asked M. Nordberg, Chairman of the Permanent Committee on Road Traffic, to give an account to the Committee of the results of the work done by the Permanent Committee at its tenth session,¹ the effect of which was to modify to a certain extent the recommendations adopted by the Committee at its ninth session.

M. NORDBERG explained that the Committee had originally proposed the establishment of four new international signs—viz :

- (1) A sign prohibiting overtaking,
- (2) A sign prohibiting passing,
- (3) A sign prohibiting the use of sound signals,
- (4) A sign indicating the removal of a prohibition, affixed to the back of the prohibition sign.

The Committee further laid down rules for the use of the place sign provided in the Annex to the 1931 Convention on the Unification of Road Signals.

As a result of certain observations made by the International Association of Recognised Automobile Clubs and others at the Permanent Committee's session in October 1935, the latter introduced certain modifications in its recommendations.

No change was made in signs 1 and 3, but sign 2 (prohibiting passing) was dropped by the Committee in view of the very few occasions on which the use of such a sign would be necessary. Justification for the abandonment of the sign was to be found in the Committee's constant anxiety not to multiply road signs except where absolutely necessary. As regards sign 4 (intended to indicate generally the cessation of particular prohibitions), the Committee found that it was likely to raise issues of a general character requiring thorough study, from the standpoint both of the traffic police and of the type of sign to be employed. The Committee accordingly reserved sign 4 for further study.

The Permanent Committee's recommendations in the matter of road signalling were accordingly as follows :

“ (a) *Utilisation of the Place Sign provided for in Paragraph III (d) of the 1931 Convention concerning the Unification of Road Signals.*²

“ In countries in which traffic regulations are different in the country as a whole according to whether the driver is in a built-up area or not, and which desire to provide an indication of this difference in the regulations, the place sign provided for in the Convention shall be utilised to indicate the point at which the application of these rules begins in the locality.

“ (b) *Sign prohibiting Overtaking.*

“ The Committee, in studying the conditions of the overtaking of vehicles on the road, recognises that, without prejudice to the observance of the general rules in force, it is necessary that the police authorities should be able, in certain special cases, to indicate by a special sign on the road an express prohibition of overtaking.

“ The Committee accordingly proposes the creation of a sign having the following meaning : prohibition of overtaking of any motor or other vehicle the dimensions of

¹ Document C.468.M.246.1935.VIII.

² Document C.231.M.99.1931.VIII.

which are comparable with those of a motor-car. The figure shall consist of a red disc with a round white or pale yellow centre, with two black arrows and a diagonal red bar indicating prohibition, as shown in Figure 1¹ (Annex 7). ”

“ (c) *Restrictions to be placed on the Use of Sound Warning Signals, and Creation of a New Sign to denote such Restriction.*

“ In certain built-up areas, as an exception to the general rules concerning the use of such sound signals, the competent authorities may decide that such signals shall not be used except in case of danger.

“ This special regime shall be indicated by the following sign : red disc with round white or pale yellow centre, bearing the figure of a motor-horn crossed by a diagonal red bar, as shown in Figure 2 (Annex 7). ”

The Committee approved these recommendations, and decided to request the Secretary-General of the League of Nations to draw the attention of Governments by a Circular Letter to recommendations 2 and 3 above (sign prohibiting overtaking and sign prohibiting the use of sound warning signals), it being left to the Governments to decide as to the desirability of acting on the suggestion of the Permanent Committee on Road Traffic regarding the introduction of an addition to the Annex to the 1931 Convention concerning the Unification of Road Signals, under Article 13 of that Convention.

5. *Claims put forward by Motor Drivers.*

M. NORDBERG explained that three of the claims put forward by motor drivers were given special consideration by the Permanent Committee at its ninth session—viz., the claims in regard to physical qualifications of motor drivers, conditions for the issue and withdrawal of motor drivers' licences, and statistics of traffic accidents and their causes. It was only in the case of the last of these three questions that a study of the matter induced the Permanent Committee to keep it on the agenda. The Committee felt that the problem of the unification of statistics of accidents and their causes was highly important and called for consideration by a committee of experts. It accordingly decided to request the Advisory and Technical Committee to take the necessary steps to set up a Committee of qualified persons—as few in number as possible—to propose a uniform framework for the statistics to be compiled and to lay down the necessary technical guiding principles.

The Committee decided to act on this proposal, and instructed the Chairman to set up the Committee in question in due course, in agreement with the Chairman of the Permanent Committee on Road Traffic.

Direction of Traffic.

M. NORDBERG drew the Committee's attention to another point in the programme of claims put forward by the motor drivers—namely, the question of unification of the rule of the road. It was true the Permanent Committee had decided that the question was not yet ripe for reconsideration by the Committee : the latter had recommended in 1927 unification of the rule of the road on the European continent. In the meantime, the International Conference on the Trans-European Highway from London to Istanbul (referred to in the report on the tenth session of the Permanent Committee) had met. This road, which was of the first international importance, passed through two countries, Austria and Hungary, in which traffic kept to the left.

M. DE CASTRO wondered whether—apart from the obvious desirability of unification of the rule of the road—there were technical reasons in favour of the adoption of the right-hand rule. In Uruguay, the left-hand rule prevailed : and in Montevideo, in which the right-hand rule was first introduced, it had been abandoned as proving less satisfactory than the left-hand rule, particularly on account of animal-drawn vehicles.

After an exchange of views, in which M. NORDBERG and M. DIETRICH DE SACHSENFELS took part, *the Committee decided to leave it to the Permanent Committee on Road Traffic to resume the consideration of the question as and when it thought fit.*

Signals to be made by Drivers of Motor Vehicles.

M. NORDBERG reminded the Advisory and Technical Committee that the Permanent Committee on Road Traffic had made a recommendation on this subject, which had been communicated to the Council and to the States Members of the League. The Permanent Committee found that substantial progress had already been made in this connection, and instructed the Secretariat to conduct an enquiry into the present position with regard to the putting into effect of the recommendation and the intentions of the Governments in this matter.

The Committee approved the above decision.

¹ In countries where traffic keeps to the left, the arrows will be modified accordingly.

6. *Light Signalling (see also Chapter II of the Report on the Tenth Session of the Permanent Committee¹).*

M. NORDBERG read the recommendation adopted by the Permanent Committee at its tenth session. He explained that the enquiry which the Permanent Committee had asked the Secretariat to make at its ninth session had been made; and it was on the basis of the replies received by the Governments that the Committee had drawn up the recommendations on light signalling which appeared in Chapter II of the report on the tenth session.¹

M. DE RUELLE regretted that the Committee had decided solely in favour of three-colour signalling. It was true that the one-colour system was inadequate in present traffic conditions; but on the other hand there was much to be said for the two-colour system. In Belgium, for example, further experiments had been made for some time with the three-colour system; but the results were not satisfactory, and the two-colour system was introduced, with entirely satisfactory results. The transition signal between red ("Stop!") and green ("Go!") was in Belgium a combined red and green signal.

On the proposal of the CHAIRMAN, *the Committee decided to act on the Permanent Committee's suggestion and to request the Secretary-General of the League to send a letter to the Governments of European States and of other States concerned, drawing their attention to the Permanent Committee's recommendations on light signalling.*

The Committee further approved the Permanent Committee's recommendation with regard to the meaning to be attached in light signalling to the colours red, yellow and green respectively, it being left to the Governments to embody the principle, if required, in the international rules by means of an addition to the Annex to the Convention of March 1931 concerning the Unification of Road Signals, under the procedure provided in Article 13 of that Convention.

7. *Communication by the Chairman of the Permanent Committee on Road Traffic concerning Commercial Motor Transport.*

M. DELANNEY, representative of the International Chamber of Commerce, thanked the Permanent Committee on Road Traffic for its readiness, in connection with the report submitted by the Chamber on barriers to international commercial motor transport (Annex 10 to the report on the ninth session of the Permanent Committee),² to entertain the possibility of reconsidering the question. He urged the importance of the problem in view of the continually increasing development of international traffic. At its eighteenth session, in December 1933, the Advisory and Technical Committee thought the time had not yet come to deal on international lines with the question of the regime of commercial motor transport: but the position had developed since then, and the bilateral agreements which had been concluded might afford a basis of work with a view to an international Convention.

M. NORDBERG remarked that the problem was becoming more and more important, and that, sooner or later, it would be necessary to find a solution for it on international lines. The Permanent Committee on Road Traffic had instructed its Secretariat to obtain documentary material as to the bilateral agreements already concluded between European States and the results of such agreements. He hoped it would be possible to submit the data thus obtained to the Permanent Committee at its next session.

The CHAIRMAN thought that this decision of the Permanent Committee on Road Traffic answered the requirements of the International Chamber of Commerce.

The Committee approved this view.

8. *Communication by the Secretariat.*

The Committee made no observation regarding this last chapter of the report on the ninth session of the Permanent Committee on Road Traffic, the examination of which was thus concluded.

B. *Report on the Tenth Session.¹*

The Committee examined the different chapters of this report with the exception of the first two (amendments of the conclusions adopted at the ninth session on road signalling questions and light signals) which it had already examined when considering the report on the Permanent Committee's ninth session.

3. *Exchange of Views on Various Questions discussed by the International Association of Recognised Automobile Clubs (I.A.R.A.C.) at its Meetings in October 1935.*

Level Crossings.

M. HEROLD said, in connection with Prince Ghika's remark on certain level crossings in the vicinity of stations, that the remark was correct, but he did not think that the question

¹ Document C.468.M.246.1935.VIII.

² Document C.276.M.143.1935.VIII.

could usefully be studied from the international point of view. The only satisfactory solution was the gradual abolition of level crossings, regarding which the Committee had already adopted a recommendation.

M. NORDBERG pointed out that the Permanent Committee on Road Traffic had considered another solution—namely, that of a deviation of the road in order that it should cross the line at a sufficient distance from places at which shunting operations are carried on.

After an exchange of views, the Committee noted that a study of the question would be very unlikely to give positive results, and considered that there was no occasion for it to modify the recommendation it had adopted regarding the abolition of level crossings, this being the only measure capable of obviating the inconveniences pointed out by Prince Ghika.

Unification of Place, Distance and Direction Signs.

The Committee had no observations to make on this subject.

Simplification of Travelling Documents.

The Committee approved the decision taken by the Permanent Committee on Road Traffic, which had instructed its Secretariat to collect preparatory documents on this subject.

Replacement of the Two Conventions of 1926 by a New Convention dealing with Road Traffic as a whole.

The Committee approved the decision taken by the Permanent Committee on Road Traffic on this subject.

Obligation for Motorists proceeding abroad to carry the Requisite Nationality Plate.

The CHAIRMAN reminded members that the Permanent Committee had asked the Advisory and Technical Committee to urge upon the States parties to the 1926 Convention on Motor Traffic the necessity of enforcing the strict observance of the provisions of the Convention concerning distinctive marks of nationality.

Colonel PÉRON, representative of the International Association of Recognised Automobile Clubs, pointed out that the text of the report of the Permanent Committee on Road Traffic mentioned only Article 5 and Annex C of the 1926 Convention, but that reference should also be made to another provision of that Convention—namely, Article 3, regarding the illumination of the distinctive mark denoting nationality.

M. DE CASTRO drew the Committee's attention to the fact that, in certain countries, the position of the mark in question was not determined by regulations, and that it was placed sometimes to the left, sometimes in the centre and sometimes to the right at the rear of the vehicle. It would, however, be desirable for this mark to be placed near the number plate of the vehicle in order that the same light should illuminate both. In certain countries, the regulations prohibited for reasons of safety the carrying of two lights at the rear of the vehicle. Moreover, the carrying of two lights would involve greater costs of installation and upkeep.

Since it was desirable that the distinctive sign of nationality should be lit up, this condition might be fulfilled by placing it next to the number plate.

After an exchange of views, *the Committee decided to give effect to the proposal of the Permanent Committee on Road Traffic, with the addition referred to by Colonel Péron. It further transmitted M. de Castro's observations to that Committee.*

4. *Collaboration of the Central Council of International Touring in the Work of the Permanent Committee.*

The Committee observed that this question lay within the province of the Permanent Committee on Road Traffic and that consequently it was not called upon to take any decision on the subject.

5. *Circulation of Foreign Motorists in Countries in which Insurance is Compulsory.*

The Acting SECRETARY-GENERAL of the Committee drew the attention of the members of the Committee to a note which had been circulated to them on the civil liability of motorists and compulsory insurance (Annex 9). He summarised this document and added that the Committee of Jurists to which the Rome International Institute for the Unification of Private Law had entrusted the examination of the question of the civil liability of motorists had had a very complete collection of documents at its disposal and had been able to do very valuable work. Arrangements had been made to give the Advisory and Technical Committee an opportunity to make observations on the results of this Committee's work before they were submitted to the Council. He pointed out that the question of civil liability was connected with that of compulsory insurance, one of the subjects which the Advisory and Technical Committee had asked the Permanent Committee on Road Traffic to study. He added that the

Secretariat had just received a letter, dated November 5th, from the Secretary-General of the Rome International Institute for the Unification of Private Law, which explained that the International Committee of Enquiry had, at its first session, decided upon the fundamental principles of the draft uniform law as regards liability proper, and was engaged in the study of the supplementary question of guarantees in favour of victims of accidents, and particularly the question of the compulsory insurance of motorists. It expressed the wish to continue to co-operate with the Permanent Committee on Road Traffic on this subject.

Colonel PÉRON, representative of the International Association of Recognised Automobile Clubs, agreed that the question of the civil liability of motorists was connected with that of compulsory insurance. He emphasised the eminently legal character of the Committee set up by the Rome Institute, whose purpose was to draw up standard legislation on the civil liability of motorists which might be taken as a basis by Governments in drafting their laws on the subject. Several countries had a civil code dating from before the period of motor traffic. The civil liability of motorists in such countries was settled in accordance with legal practice. In certain other countries, special laws had been enacted on the subject, while, in others, such laws were now being drafted. The model law which was being prepared by the Rome Institute would be particularly useful to such countries.

Colonel Péron added that the work of the Rome Institute had already reached quite an advanced stage. A large quantity of documentary material, to which the International Association of Recognised Automobile Clubs had made an important contribution had been collected beforehand. He thought that it would be desirable to allow this work, which was making good progress, to continue. That would not prevent the Permanent Committee on Road Traffic from studying on its side the simplification of the formalities required of foreign motorists by the countries which had adopted compulsory insurance. That would be a practical and useful task which the Committee was particularly competent to undertake.

M. DELAQUIS, representative of the International Tourist Alliance, explained that he had attended the meetings of the International Committee of Enquiry of the Rome Institute, both in his capacity of professor of criminal law and as representative of the International Tourist Alliance.

He shared Colonel Péron's opinion regarding the distribution of work between the committee set up by the Rome Institute and the Permanent Committee on Road Traffic. He pointed out that all the conclusions reached by the Institute's committee gave *replies of principle* to the questions put in the questionnaire (see Annex 8, Appendix) and that each of these questions was to be re-examined at a second reading.

M. Delaquis wondered whether it would not be possible to establish collaboration between the Permanent Committee on Road Traffic and the Committee set up by the Rome Institute, the former examining the practical side of the problem and the latter its legal side.

Perhaps it would be possible later on to set up a joint committee to study the problem as a whole and submit the result of its work to the Advisory and Technical Committee.

After an exchange of views, the CHAIRMAN, summing up the opinions which had been expressed, said that, in the first place, the Permanent Committee on Road Traffic was certainly competent to study the substance of the question, if necessary with the collaboration of legal experts. At the same time, in view of the advanced stage which the work of the Committee of the Rome Institute had already reached, it was desirable that that Committee should carry on its work. Closer collaboration should be established between that Committee and the Permanent Committee on Road Traffic.

The Committee adopted the following resolution :

“ The Advisory and Technical Committee,

“ Having taken note of the memorandum of October 30th, 1935, submitted by the Secretariat on questions of the civil liability of motorists (third party risks) and compulsory insurance, which have been under study by the Rome International Institute for the Unification of Private Law and have been referred by the latter to a Committee of Jurists, as also of the explanations which have been submitted to it on the subject by the representative of the International Tourist Alliance on the said Committee of Jurists ;

“ Considering that the work of the said Committee of Jurists is closely connected with questions with which the Communications and Transit Organisation is called upon to deal ;

“ Being anxious to fulfil the tasks devolving upon it to the best of its ability, and to accept the responsibilities with which it is entrusted :

“ (1) Requests its Chairman to take the necessary steps to establish as close collaboration as possible between the said Committee of Jurists and representatives of the Communications and Transit Organisation ;

“ (2) Considers it essential that, independently of such collaboration, it should be given the opportunity to study the work done before it is submitted to the Council of the League of Nations, and to make such observations on the subject as it may think fit. ”

6. *Communication regarding the International Conference on the Trans-European Highway from London to Istanbul, held at Budapest from September 10th to 14th, 1935.*

M. NORDBERG said that all the countries crossed by the trans-European highway from London to Istanbul had acceded to the Paris Convention of 1926 on Motor Traffic. The same was not the case as regards the Geneva Conventions adopted at the European Conference on Road Traffic in 1931. The Convention on the Taxation of Foreign Motor Vehicles had not been ratified by Germany, Austria, France, Hungary, Roumania or Bulgaria. The Convention on the Unification of Road Signals had not been ratified by Austria, Bulgaria or the United Kingdom. Motorists travelling on this highway would therefore encounter difficulties particularly from the point of view of taxation.

The Committee noted this observation, but did not consider that it need take any decision on the subject.

7. *Communication by the Secretariat.*

The Committee had no observations to make on this subject.

8. *Conventions and Agreement concluded at the European Conference of 1931 on Road Traffic: Present Situation with regard to Ratifications and Accessions.*

The Committee had no observations to make on this last chapter of the report on the tenth session of the Permanent Committee on Road Traffic, the examination of which is thus concluded.

The Committee adopted the following resolution regarding all the questions dealt with in the reports on the ninth and tenth sessions of the Permanent Committee on Road Traffic, except that on the civil liability of motorists and compulsory insurance, which forms the subject of a separate resolution:

“ The Advisory and Technical Committee,

“ After examining the reports by the Permanent Committee on Road Traffic on its ninth and tenth sessions, held from June 17th to 21st and from November 1st to 5th, 1935, respectively :

“ (1) Takes note of these reports and endorses their conclusions ;

“ (2) Stresses the importance of the recommendations adopted by the Permanent Committee relating to :

“ (a) Light signals, especially as regards the meaning attached to red, yellow and green respectively ;

“ (b) The two new signs—namely, the sign prohibiting overtaking and the sign prohibiting the use of sound warning signals ;

“ (3) Requests the Secretary-General of the League of Nations to bring these recommendations to the notice of the Governments of the European States and of other States concerned, so that :

“ (a) Those Governments may be guided by them in issuing regulations regarding road signs in their territory ;

“ (b) The Governments may, as far as they are concerned and if they think fit, take the necessary steps to introduce into the international regulations by means of an addition to the Annex to the Convention of 1931 concerning the Unification of Road Signals, in accordance with the procedure laid down in Article 13 :

“ (i) The principle of the meaning attached by the Permanent Committee to the red, yellow and green lights respectively ;

“ (ii) The two new signs mentioned above ;

“ (4) Endorses the recommendation made by the Permanent Committee to draw the attention of Governments parties to the Convention of 1926 on Motor Traffic to the necessity of observing more strictly the provisions of Articles 3 and 5 of the Convention, and Annex C thereof, in respect of the constitution, situation and lighting of the distinctive nationality mark.

“ The Committee requests its Chairman to take the necessary steps to transmit this recommendation to the Governments concerned ;

“ (5) Requests its Chairman to appoint a committee of qualified persons—as few in number as possible—to propose a uniform framework for statistics of road traffic accidents and their causes and to give the necessary technical instructions. ”

XVIII. NATIONAL PUBLIC WORKS.

The CHAIRMAN commented briefly on the contents of the two volumes entitled "Enquiry on National Public Works"¹ (see also Annex 9) and referred to the terms of the resolution regarding this question adopted by the Assembly at its last session on September 24th, 1935.

M. Silvain DREYFUS observed that thirty-eight Governments had replied to the Circular Letter from the Secretary-General asking for information on the public works which they had undertaken or proposed to undertake. Of these thirty-eight replies, twenty gave a definitely favourable opinion regarding the influence of public works on the economic recovery of countries and on unemployment; one reply was negative and the others contained no definite opinion on the subject. The question now arose as to the action to be taken. Referring to the end of the introduction to the first volume of the "Enquiry on National Public Works" (page 7) he saw that it was proposed "to collect periodically documentary information covering the whole of the programmes of national public works".

After having noted the replies of the Governments, he did not think that that measure should be taken immediately. The Committee, on the basis of the Assembly's resolution, could confine itself for the moment to having the present documentary material examined by experts. Only after that examination would it be possible to see what use could be made of the material.

M. DE CASTRO said that, for a long time past, he had taken a personal interest in the question of public works, and that he had been the promoter of a resolution adopted on the subject by the International Labour Conference of 1931. He emphasised the importance of the documentary material contained in the two volumes published by the Secretariat, and he also wished to congratulate the International Labour Office, and particularly M. Fuss, on the interesting volume entitled "Public Works Policy".

M. FUSS (International Labour Office) thanked M. de Castro and said that the question of public works was one of permanent interest to the International Labour Office. If the Advisory and Technical Committee decided to ask experts to consider what action should be taken on the documentary material from Governments collected by the Secretariat, there could be no doubt that, in view of the continuous co-operation between the Transit Organisation and the Labour Organisation in that field, contact could very easily be established with the latter Organisation, which would be able to profit by the experts' findings. M. Fuss added that copies of "Public Works Policy" were at the disposal of all the members of the Advisory and Technical Committee who might wish to consult it.

The CHAIRMAN, before closing the discussion, noted that the Advisory Committee authorised its Chairman to appoint a small number of experts to undertake, in accordance with the Assembly resolution, a detailed and systematic examination of the documentary material collected.

The Committee adopted the following resolution:

"The Advisory and Technical Committee,

"Emphasises the importance of the enquiry undertaken by the Secretariat into the question of national public works;

"Highly appreciates the valuable co-operation of the Governments which have enabled the Secretariat, by the copious information they have supplied, to collect documentary material of the first importance in relation to public works completed, in course of execution or under consideration in a very large number of countries;

"Taking note of the report of the Second Committee to the sixteenth Assembly on the question of national public works, and of the resolution adopted by the Assembly on the subject:

"Is of opinion that the examination of the documentary material by experts will undoubtedly prove of great value, since it will lead to conclusions of general interest.

"Decides accordingly to instruct its Chairman to organise such a study by a small number of specially qualified experts."

XIX. INTERNATIONAL UNIFICATION OF INLAND NAVIGATION REGULATIONS.

Enquiry into the International Unification of Inland Navigation Regulations: Report by the Secretariat (Annex 10) and Note by the Chairman of the Permanent Committee (Annex 11).

M. Silvain DREYFUS, Chairman of the Permanent Committee for Inland Navigation, gave an account of the position of the question, and thought that the Committee might take note of the result of the enquiry carried out among European States, from which it did not seem possible for the moment to contemplate general unification for all European navigable systems.

¹ Document C.482.M.209.1934.VIII and Addendum.

The Acting SECRETARY-GENERAL read a communication dated July 5th, 1935, from the Belgian Ministry for Foreign Affairs to the Secretary-General of the League, intimating that the Belgian Government, in view of the difficulty of effecting a more general unification at the present time, suggested that unification should be confined to the Rhine system and had already put that proposal before the Governments of the countries concerned—Germany, France and the Netherlands. The idea of a limited unification had already been put forward in a recommendation by the Congrès national de la Navigation intérieure, held at Brussels in 1928. The Committee would doubtless take note of the Belgian Government's initiative in the matter.

The CHAIRMAN said that the Advisory and Technical Committee approved the report by the Chairman of the Permanent Committee for Inland Navigation and took note of the Acting Secretary-General's communication.

XX. CO-ORDINATION OF TRANSPORT AND MORE ESPECIALLY OF RAIL AND ROAD TRANSPORT (Annex 12).

M. Silvain DREYFUS said that the French Government attached the greatest importance to this question and to its economic and financial aspects in particular. Moreover, the question was engaging the attention of all Governments and, it might be said, of the general public as well, and what appeared to be lacking at the moment was the co-ordination of the work already done in that field. At one time, it had been proposed to ask the Economic Committee and also the Financial Committee to study the problem. The work of the eighth congress of the International Chamber of Commerce, held in June 1935, which had adopted a number of very interesting resolutions, should also be borne in mind. In view of the resolution adopted by the sixteenth Assembly, the direction of the work and the collection of the necessary technical, economic and financial data should be entrusted to a special body. For this last purpose, the assistance of organisations outside the League, such as the International Chamber of Commerce, would be very valuable.

At first it had been proposed to confine the work of co-ordination to rail and road transport, but the suggestion had subsequently been made that it should cover all modes of transport. However, it would probably be difficult to reach any clear or definite conclusions if an attempt were made to cover the whole problem.

M. DELANNEY (International Chamber of Commerce) observed that, to quite M. Herold's words, there had been a veritable "inflation of transport capacity" in all branches of transport; this had developed side by side with the economic depression, so that there was now a striking disparity between means of transport and the volume of goods exchanged. That led to overlapping and tariff wars, not only between the various modes of transport, but also between the road transport undertakings themselves. These engaged in unbridled competition that was harmful to the general interest, especially as in only too many cases the Governments were obliged to step in with subsidies.

The work of the International Chamber of Commerce in that field had been undertaken following upon resolutions adopted by the Congress held at Washington in 1931. The International Chamber of Commerce had had an enquiry carried out by a special committee of experts in a very large number of countries and with the help of many of the organisations concerned. The results of that work were published in a booklet entitled "Route et Rail".

The whole results had later been published in a book entitled "La Route et le Rail dans 40 Pays", in which the problem was dealt with more systematically and in its various aspects—economic, legal and social. As soon as that material had been collected, the International Chamber of Commerce had convened a meeting of experts, representatives of the competent international organisations, representatives of rail and motor transport undertakings and users. Lastly, a report had been drawn up for the Congress held in June 1935, at which a resolution on the problem of road and rail transport was unanimously adopted. That resolution constituted for the moment a compromise solution likely to meet with the approval of the various interests involved. The Congress had also emphasised the importance of studying the question of co-ordination in other fields—*i.e.*, between air and rail transport and between air and sea transport—in accordance with the general concepts of the various Governments.

The International Chamber of Commerce had recently transmitted to the Secretariat of the Advisory and Technical Committee a copy of the documents it had prepared, which might be of use for the Committee's subsequent work.

M. HEROLD was glad to note the work done in that field by the International Chamber of Commerce, which of course did not prevent the Advisory and Technical Committee from taking the action recommended by the sixteenth Assembly—quite the contrary, indeed. In accordance with the Assembly's decision, the Committee need only take note of the Assembly's recommendation and ask the Secretariat to give effect to it.

The CHAIRMAN thanked the representative of the International Chamber of Commerce for his statement, according to which that organisation placed its documentary material at the Secretariat's disposal. In accordance with M. Herold's suggestion, it would be sufficient for the moment to instruct the Secretariat, in accordance with the Assembly's resolution, to

study the present position and the measures taken in the various countries—*i.e.*, to approach the Governments, asking them to state what action they had taken or proposed to take in the matter. The practical work done by the International Chamber of Commerce would thus be supplemented by information furnished by the Governments.

The scope of the work to be undertaken by the Secretariat should be limited. For the moment, it would be advisable to confine the study to the problem of co-ordination of rail and road, since that was the most urgent and most important question, and considerable progress had already been made in the work done in that field by the International Chamber of Commerce. That would not prevent the subsequent extension of the scope of the enquiry to other modes of transport.

M. DIETRICH DE SACHSENFELS said that the problem of the co-ordination of transport had originated in the competition between rail and river transport. Abundant documentation existed on the matter. For the moment, air transport might be disregarded, but it seemed essential to include river transport in the study of co-ordination.

M. Silvain DREYFUS thought that a distinction should be made between two categories of transport—transport which was mainly of a national character—*i.e.*, rail and road transport and transport by navigable waterways—and transport of a less strictly national character—*i.e.*, sea and air transport. Rail and road transport and transport by inland waterways could therefore be examined at once.

M. FUSS (International Labour Office) asked whether the proposal was only that the Secretariat should consult the Governments or whether it was also proposed to consult experts. In the latter case, the International Labour Office would have suggestions to make to the Committee as regards the choice of certain experts.

The CHAIRMAN said that for the moment it was simply proposed to consult the Governments. A special committee would not be appointed until the material had been collected, and the Secretariat would then approach, not only Governments, but also the competent organisations, in order to obtain as much information as possible.

The Committee adopted the following resolution :

“ The Advisory and Technical Committee,

“ Having regard to the resolution adopted by the Assembly at its sixteenth ordinary session (September 1935) requesting the Communications and Transit Organisation to study the situation and the measures taken to co-ordinate transport in the principal countries concerned, on the understanding that the problem of transport co-ordination should be viewed in its widest aspect, technical, economic and financial :

“ (1) Instructs the Secretariat, with a view to collecting the requisite documentary material, to approach the Governments and, if necessary, the organisations with special competence in the matter, limiting its enquiry for the moment to transport by rail and road and to inland navigation ;

“ (2) Invites the Secretariat to submit the results of its enquiry to the Committee at its next session, and may then take a further decision in the matter, taking into account the recommendations of the Assembly concerning collaboration on the part of the Financial Committee and the Economic Committee. ”

XXI. POLLUTION OF THE SEA BY OIL.

Action taken by the Competent Organs of the League of Nations and Summary of the Replies to the Questionnaires :¹ First and Second Sessions of the Committee of Experts (Annex 13).

Mr. KEANE referred to the great interest taken by the United Kingdom Government in the question of the pollution of the sea by oil. He was glad to see that the Committee of Experts had prepared a draft,² which was approved unanimously by all its members, and proposed that the draft should be forwarded to the Governments.

M. Silvain DREYFUS and M. DE VASCONCELLOS supported the proposal.

The Committee, after an exchange of views, adopted the following resolution :

“ The Advisory and Technical Committee,

“ Takes note of the resolutions adopted by the Assembly at its fifteenth and sixteenth ordinary sessions, and by the Council at its eighty-fourth and eighty-ninth sessions, in regard to the problem of the pollution of the sea by oil ;

¹ Document A.20.1935.VIII.

² Document C.449.M.235.1935.VIII.

“ Is gratified to observe that the Committee of Experts appointed to ensure the execution of those resolutions has prepared a draft Convention and a draft Final Act on the questions ;

“ Decides to transmit these drafts to the Governments, with the request that they should send to the Secretary-General of the League of Nations in the near future any observations they may see fit to make, at the same time informing the Secretary-General whether they are prepared on the basis of these drafts to take part in an international conference for the conclusion of the proposed convention.

“ The Chairman of the Committee is instructed to take the necessary steps in execution of the present resolution.”

XXII. QUESTIONS OF INTERNAL ORGANISATION : COMPOSITION OF THE PERMANENT COMMITTEES.

M. KIRSANOFF said that the Government of the Union of Soviet Socialist Republics would be willing to co-operate in the work of the Permanent Committee for Transport by Rail, but that the Soviet expert could not be appointed until later on, with the Committee's approval.

The CHAIRMAN declared that the Committee noted with satisfaction the communication made by M. Kirsanoff.

XXIII. INTERNATIONAL TOURIST TRAFFIC.

Tourist Traffic considered as an International Economic Factor (Document E.932, an extract from which is included in Annex 14).

The CHAIRMAN made a rapid review of this document ; it appeared that the Transit Organisation would be consulted on the following questions :

Passports ;

Measures to reduce the number of traffic documents (the Committee did not require to consider this point, as it had been mentioned during the examination of the work of the Permanent Committee for Road Traffic) ;

Reduction to a minimum of formalities required of foreign motorists in countries which have made third-party insurance compulsory in their territory ;

Facilities to be granted in respect of railway travel.

M. HEROLD suggested that this last question should be referred to the Permanent Committee for Transport by Rail.

M. NORDBERG did not think that, in the present state of Europe, anyone could seriously propose that passports should be done away with, as the Sub-Committee of Experts on Tourist Traffic had desired. On the other hand, visas, he thought, might be abolished.

Mr. KEANE approved that suggestion.

A discussion took place regarding the importance of an examination of the question of passports.

Mme. LEHMANN, Member of the Transit Section, explained that the Sub-Committee of Experts on Tourist Traffic, whose discussions she had attended, was quite aware that it was useless at the present juncture to expect passports to be abolished altogether ; but it had drawn the Transit Organisation's attention to the fact that certain countries had concluded bilateral agreements whereby the nationals of the other contracting country were exempt from the obligation to produce a passport. In order to give evidence of his nationality, however, any person desirous of taking advantage of this facility, had to produce a document issued by the competent authorities and stating his nationality, such as a tourist card, identity card, etc. Those documents, which were usually less expensive and less bulky than passports, had facilitated tourist traffic, particularly between certain neighbouring countries. The Sub-Committee was in favour of an extension of that system.

It had also observed that the recommendations of the Passport Conference held in 1926, which dealt with all the various aspects of the question, such as the type of passport, the charge for its issue, its validity, the charge for visas, and facilities for the issue of passports and visas had resulted in a considerable simplification of the formalities required. The Sub-Committee had nevertheless considered it desirable that those recommendations should be more fully carried into effect in view of the high charges for the issue of passports now demanded by certain States.

Mme. Lehmann said that the Secretariat did not possess any up-to-date information regarding the application of the recommendations of the Passport Conference, the last enquiry having been carried out in 1929.

The CHAIRMAN proposed that the Secretariat should be instructed to collect from Governments fresh information as to the present position in regard to the effect given to the recommendations of the 1926 Conference. When those particulars had been obtained, it would be possible to see whether any action could be taken by the League in the matter of passports.

The Committee decided to refer to the Permanent Committee for Transport by Rail the question of facilities to be granted in respect of railway travel.

The Committee adopted the following resolution :

“ The Advisory and Technical Committee,

“ Having considered the report of the Sub-Committee of Experts on Tourist Traffic, which met from October 21st to 24th, 1935 :

“ (1) Notes with satisfaction that the Permanent Committee on Road Traffic has begun the examination of the following questions :

“ Measures to reduce the number of documents in connection with road traffic,

“ Unification of Customs formalities,

“ Simplification of the formalities required of foreign motorists by countries which have introduced compulsory insurance against damage caused to third parties ;

“ (2) Refers to the Permanent Committee for Transport by Rail the examination of the question raised by the Sub-Committee of Experts in connection with facilities to be accorded for journeys by rail ;

“ (3) Instructs the Secretariat, in view of the considerations put forward by the said Sub-Committee regarding the difficulties caused to tourist traffic by the present passport system, to enquire of the Governments concerned the actual position in regard to the application of the recommendations of the Passport Conference held at Geneva from May 12th to 18th, 1926, and requests it to report to the Committee on the present position of the question.”

XXIV. CONSTITUTION, PROCEDURE AND PRACTICE OF COMMITTEES OF THE LEAGUE OF NATIONS : AGENDA OF THE FIFTH GENERAL CONFERENCE ON COMMUNICATIONS AND TRANSIT.

Report by the Secretary-General of the League of Nations.¹

Report of the Committee appointed to study the Constitution, Procedure and Practice of Committees of the League of Nations.²

Report submitted by the Second Committee to the Assembly.³

Committees of the League of Nations (Annex 15).

The CHAIRMAN drew attention to the fact that the question of the reorganisation of the Communications and Transit Organisation had not been officially laid before the Committee : the Assembly had assigned the duty of carrying out its decisions to the Council.

M. Silvain DREYFUS did not think there was any need for the holding of a general conference since, according to the proposed changes (document A.16.1935, Chapter V, 3 (b)), the enlarged Committee was henceforward to do the work of the periodical general conference. Moreover, since the Assembly had requested the Council to carry out its decisions, no initiative need apparently be taken by the Advisory Committee ; that initiative rested with the Council.

The CHAIRMAN explained that, as the Committee was holding a plenary session, he had thought it advisable, in case the matter should be submitted to it by the Council, at any rate to decide upon the procedure to be adopted for the study of the future Communications and Transit Organisation. In that case, a committee would probably have to prepare a new statute on the basis of the old one and of the Assembly's decision.

M. Silvain DREYFUS doubted whether the present Advisory and Technical Committee was competent to take any action until the new committee was constituted. The task referred to by the Chairman would probably have to be carried out by the new committee.

The CHAIRMAN thought that, until a new advisory and technical committee had been set up by the Council, the present Committee should continue to exercise its functions, and he had merely thrown out his suggestion in case the Council consulted the Committee regarding the preparation of the future statute.

M. HEROLD and M. MODEROW supported the Chairman's view.

The CHAIRMAN explained that, if the Advisory and Technical Committee granted him the powers to which he had referred, he would not call in the committee in question forthwith, but would do so only if the Council asked the Advisory and Technical Committee to submit suggestions regarding the new statute. That would ensure that the Committee would not go beyond its province.

¹ Document C.287.M.125.1934 and Addendum.

² Document A.16.1935.

³ Document A.70.1935.

After an exchange of views, *the Committee*, on the proposal of the CHAIRMAN, *adopted the following resolution* :

“ The Advisory and Technical Committee,

“ Having taken note of the report of the Committee appointed to study the constitution, procedure and practice of Committees of the League of Nations, and also of the resolution on the subject adopted by the Assembly at its sixteenth ordinary session, according to which the Council is requested to take all the necessary steps with a view to the application of the resolution ;

“ In view of the possibility that the Council may request the present Committee to make suggestions with regard to the modification of the Statute of the Transit Organisation necessitated by the proposed reorganisation :

“ Instructs its Chairman to have recourse for the purpose to its Permanent Legal Committee or to an *ad hoc* committee composed of members to be designated by the Chairman of the Advisory and Technical Committee. ”

XXV. COMMUNICATIONS BY THE SECRETARIAT.

The Acting SECRETARY-GENERAL of the Committee made the following communications :

1. *Budget of the Communications and Transit Organisation for 1936.*

The Acting Secretary-General of the Committee explained the budgetary situation of the Communications and Transit Organisation for 1936 (see Annex 16).

2. *Action taken on Act regarding the Economic and Social Aspects of the Stabilisation of Movable Feasts adopted by the Fourth General Conference.*

At its seventeenth session, the Committee noted the resolution adopted by the Council on this question in January 1932. The Act regarding the economic and social aspects of movable feasts was brought to the notice of the authorities of the Christian Churches by the Secretary-General of the League of Nations. The observations of the Churches are set out in document C.335.M.154.1934.VIII, which has been distributed to the members of the Committee, to the Council and to the States Members of the League.

The Holy See has informed the Secretary-General that, for reasons of higher spiritual concern, it cannot contemplate a change in this matter. The Orthodox and Protestant Churches have almost all declared that they see no objection to the proposed stabilisation. They have added, however, that the stabilisation of movable feasts must be made dependent on the consent of all the Christian Churches.

3. *Unification of Transport Statistics.*

The Committee will remember that at its last session, after examining the replies from Governments concerning the draft Convention for the Unification of Transport Statistics which had been communicated to them, it decided to defer until a more opportune moment consideration of the action to be taken in connection with the investigations made on this subject. At the same time, the Committee authorised its Chairman to restore this question to the agenda as soon as he deemed it advisable.

There does not, however, seem to be any change in the situation such as would warrant greater hope of success. In these circumstances, the Chairman has not seen fit to include the question in the agenda of the present session.

Moreover, the members of the Committee have received a summary (Annex 17) of two replies (from the Governments of Poland and of the Union of South Africa respectively), which have reached the Secretariat since the last session. These two replies would not seem to justify any modification of the general impression which led the Committee to decide on the adjournment of the matter.

4. *Transport and Transit of Electric Power and Regime of the International Exchange of Electric Power in Europe.*

The Committee had before it at its last session a memorandum by its Secretary-General on the transport and transit of electric power. The memorandum contained the replies of the Governments to a Circular Letter asking them for certain information on the subject. The replies received since, those from the Swedish and Czechoslovak Governments (Annex 18), are to be added to the memorandum.

A detailed study is being made on the basis of all the replies. This study will include, for each country in Europe, an account of the geographical situation and sources of electric power, their development, the present situation as regards the exploitation of sources of power and the distribution of such power by means of a system of high-tension lines, possibilities and projects for the future development of these lines, statistics of the exploitation, importation and exchange of power at the present time, together with a summary of existing laws and of policy with regard to the exportation of power, and the importation of power from other countries.

5. *Co-operation between the Siamese Government and the Communications and Transit Organisation for the Investigation of the Question of the Improvement to the Approaches to the Port of Bangkok: Requests from Governments for Information or Investigations.*

The Committee was informed at its last session of the collaboration between the Siamese Government and the Communications and Transit Organisation for the investigation of the question of the improvement to the approaches to the port of Bangkok. The members of the Committee will remember that the Chairman had entrusted the study of this question to a committee of three experts, and that subsequently one of these was instructed as Rapporteur to carry out an enquiry on the spot. On the basis of the results of this enquiry and of the documentary material collected, the committee of experts prepared a report which was transmitted to the Siamese Government at the end of the spring of 1934. This report deals very fully with the problems raised, and will doubtless be of considerable value to the Siamese Government.

* * *

The Secretariat of the Committee has received from time to time from various Governments requests for information or for investigations on various points connected with the problem of public works or bearing on the documentary material on the subject. The Secretariat has always complied with these requests as far as possible.

6. *Collaboration between the Transit Section and the Disarmament Section.*

In compliance with the request made by the Director of the Disarmament Section, the Transit Section has supplied that Section with certain information, and has expressed its opinion on the scope and application of measures concerning publicity for transport in transit in cases where Conventions exist which provide for freedom of communications and transit.

The following paragraphs were inserted in the report submitted by the Committee for the Regulation of the Trade in and Private and State Manufacture of Arms and Implements of War to the Conference for the Reduction and Limitation of Armaments:

“ 15. As regards the transit questions arising out of the Soviet and French proposals, and in view of the consent of the majority of the Committee to embody the special provisions on transit in the text of the Convention, a Transit Committee was set up. . . . This Committee proceeded to a study of these new problems, and explored the ground with a view to facilitating the Committee's future work.

“ 16. All questions relating to transit are consequently reserved for a second reading, and it is understood that the reservations of the delegations whose final attitude to certain articles depends on the solution of transit questions are fully maintained. The Transit Committee's report . . . is attached to the present report.”

The following are the relevant passages from the Transit Committee's report:

“ The Plenary Committee, after a first exchange of views, asked the Legal Section, in consultation with the Communications and Transit Section, to give an opinion on the legal aspects of the question of transit, considered in the broadest manner. . . .

“ In view of the circumstances which have just been related and of the short time at its disposal, the Committee considered that it would be an advantage for the question to be studied at leisure by the Governments. When the latter have been able to make a careful examination of the problem, it will no doubt be easier to find a practical way of reducing the differences which manifested themselves during this first discussion. It will then be possible to begin a second reading of the question. This adjournment will also allow the Communications and Transit Organisation of the League to go into certain technical aspects of the question, according to the wish it has expressed.”

Lastly, the following is the remark concerning the scope of the study, inserted in the note which was prepared by the Legal Section in consultation with the Communications and Transit Section, and to which reference is made in the Transit Committee's report (see above):

“ This note is a working document drafted for the rapid information of the Subcommittee on Trade in Arms. It does not prejudice the opinion of the Communications and Transit Organisation.”

7. *Co-operation between the Transit Section and the Opium Section.*

The Committee will remember that, at its eighteenth session, it decided to withdraw from its agenda the question of the illicit traffic in dangerous drugs by aircraft. Since that date, the Opium Section has consulted the Governments on the subject, and, on the basis of their replies, it has drawn up, after getting into touch with the Transit Section, a report for the Advisory Committee on Traffic in Opium and Other Dangerous Drugs.

As the outcome of the discussions which took place in the Opium Committee, the Opium Section requested the Director of the Transit Section to refer the problem to the International

Commission for Air Navigation (C.I.N.A.) (the C.I.N.A. is under the authority of the League of Nations). At its Brussels session (May-June 1935), the C.I.N.A. decided to comply with the request made to it, and instructed its Committee of Customs Experts to study the question. The Customs Committee is to meet in December 1935.

8. *Representation of the Communications and Transit Organisation at the Seventh International Road Congress, held at Munich in 1934.*

M. F. J. M. BOURDREZ, deputy representative of the Communications and Transit Organisation placed at the disposal of the National Economic Council of China, attended this Congress, in accordance with the Chairman's decision.¹

M. Bourdrez' presence at the Congress was particularly valuable. The debates of the Congress touched upon several questions that arose in China, also in connection with the construction and upkeep of highways and roads. In addition, M. Bourdrez was not only able to get into touch with technicians of different nationalities who were particularly competent on the subject, but to obtain valuable information by visiting an extremely successful road exhibition which was held at Munich throughout the Congress. This exhibition included sections dealing with the history of roads, road material, the road industry in general and experiments with binding and surface materials.

The Congress's work was divided into two sections, the first dealing with methods of construction and upkeep of roads and the second with road traffic, operation and administration. As M. Bourdrez followed more particularly the work of the first section, the Committee will no doubt be glad to hear that one of the members of the Italian delegation to the Congress, M. Mellini, member of the Permanent Committee on Road Traffic and Chairman of the Special Committee for the study of signals at level crossings, followed more particularly the work of the second section, and even acted as rapporteur on Question 4 of this second section, dealing with the best means of ensuring the safety of traffic. One of the most remarkable results of the liaison thus established was the resolution unanimously adopted by the Congress with regard to level crossings. It will be remembered that in this resolution the Congress approved the conclusions reached by the Special Committee for the study of signals at level crossings, and recommended that these conclusions should as soon as possible be submitted for study to an international conference.

9. *Representation of the Advisory and Technical Committee at the International Technical Conference for First Aid on Roads, held at Budapest in May 1935.*

The Communications and Transit Organisation was represented at the International Technical Conference for First Aid on Roads, held at Budapest, May 20th-24th, 1935, by Mme. Lehmann, Secretary of the Permanent Committee on Road Traffic, who gave an account to this Conference on the one hand of the Transit Organisation's work in regard to road signals and the importance to the safety of human life of a uniform system of signals, and on the other hand of the state of the work of the Permanent Committee on Road Traffic regarding statistics of traffic accidents. The Budapest Conference formally recommended that the Transit Organisation be requested to study the question of the standardisation of the methods of compiling official statistics of traffic accidents.²

10. *Representation of the Advisory and Technical Committee at the Sixteenth International Navigation Congress, held at Brussels in September 1935.*

(See under IV, § 10, the Chairman's communication on this subject, page 16.)

11. *Representation of the Secretariat of the Committee at the Seventeenth Session of the Permanent Technical Hydraulic System Commission of the Danube, held at Budapest in June 1934.*

The Secretariat was represented at the seventeenth plenary session of this Commission by M. Lukač. This was done in compliance with the wishes of the Chairman of that Commission, M. Rossetti, appointed by the Council of the League of Nations, who for years past had asked that the Transit Section should be represented at the Board's sessions.

12. *Other Meetings attended by the Secretariat.*

In order to maintain and, as far as possible, extend liaison with international technical organisations specialising in a particular branch of communications—such liaison of course constitutes one of the essential activities of the Transit Organisation—the Secretariat continued to co-operate with these organisations by sending representatives to their meetings when their agenda contained questions of particular interest to the field of activity and present work of the Transit Organisation.

Thus M. Haas attended the eighth Congress of the International Chamber of Commerce, held at Paris in June 1935, M. Metternich attended the meetings of the Managing Committee of the International Railway Union and its Commissions, Mr. Tombs represented the

¹ See under IV, § 13, the Chairman's communication on this subject, page 15.

² Document C.276.M.143.1935.VIII, Annex 8.

Secretariat at the sessions of the International Commission for Air Navigation and of the International Air Traffic Association, Mme. Lehmann attended the meetings of the International Association of Recognised Automobile Clubs, and M. van Dissel participated in the work of the International Broadcasting Union.

13. *Representation of the League of Nations on the International Telegraph Consultative Committee.*

The Czechoslovak Minister of Posts, Telegraphs and Telephones invited the League of Nations to the fourth meeting of the International Telegraph Consultative Committee, held at Prague at the beginning of June 1934, adding that the Czechoslovak administration, which was in charge of this meeting, would propose the participation of the League of Nations delegate in this Committee's work. The wireless expert of the Secretariat, M. van Dissel, was instructed by the Secretary-General of the League of Nations to negotiate with certain members of the International Telegraph Consultative Committee in order to draw up a form allowing of the League's participation while safeguarding its special interests and status. The formula adopted by the Committee, and subsequently by the Secretary-General of the League, was as follows :

“ The delegate of the League of Nations shall be admitted to meetings as an expert of the competent Organisation of the League which, as an official international institution, operates a wireless station belonging to it near Geneva ; that is to say, with the right of discussion, and the obligation to contribute to common expenses as laid down for private undertakings in the international telegraph regulations. ”

In July 1935, the Secretary-General asked the Ministry of Communications at Madrid, in accordance with the general regulations annexed to the Madrid Convention of 1932, that the League of Nations should be admitted to the proceedings of future meetings of the International Telegraph Consultative Committee on the basis of the above formula.

14. *Representation of the League of Nations on the International Consultative Committee for Radiocommunications.*

The Secretary-General of the League of Nations submitted to the Ministry of Communications at Madrid, in accordance with the General Radiocommunications Regulations annexed to the International Telecommunication Convention of Madrid, 1932, a request for the League's admission to membership of the International Consultative Committee for Radiocommunications, which met at Lisbon in September 1934. The formula of admission proposed was the same as that decided upon for the League's representation on the International Telegraph Consultative Committee mentioned above. This formula having been accepted by the International Consultative Committee for Radiocommunications, the wireless expert of the Secretariat, M. van Dissel, took part in that Committee's proceedings.

The Committee took note of these communications.

XXVI. CLOSE OF THE SESSION.

The CHAIRMAN declared the nineteenth session of the Committee closed.

ANNEX 1.

[C.C.T.593.]

AGENDA.

1. Report of the Permanent Committee for Transport by Rail on its Eighth Session.
2. Reports of the Permanent Committee for Road Traffic on its Ninth and Tenth Sessions.
3. Report of the Special Committee for the Study of Signals at Level Crossings.
4. Co-operation between the National Government of China and the Organisation for Communications and Transit.
5. National Public Works.
6. Annual Reports of the Memel Harbour Board for 1933 and 1934.
7. Agreements, Conventions, etc., concluded under the Auspices of the League of Nations :
Position as regards Signatures, Ratifications and Accessions.
8. Position of the Work on Communications of Importance to the Working of the League of Nations :
 - (a) Communications at Times of Emergency ;
 - (b) Operation of the League of Nations Wireless Station.
9. Customs Exemption for Liquid Fuel used in Air Traffic.
10. Pollution of the Sea by Oil.
11. Position of the Work on the Unification of Buoyage Rules.
12. Position of the Work on Maritime Tonnage Measurement.
13. Present Position of the Investigations regarding the Constitution of a Main Network of Permanent Air Routes ; Report by M. Henri Bouché.
14. Report by the Committee of Experts for the Study of Questions relating to the Petition submitted to the Council of the League of Nations by the Noskovci-Slatina-Nasice Local Railway Company, Limited.
15. German Representation on the International Danube Commission : Question raised by the United Kingdom, French, Italian and Czechoslovak Governments.
16. International Unification of Regulations for Inland Navigation.
17. Co-ordination of Transport.
18. International Tourist Traffic.
19. Constitution and Working of League of Nations Committees (Agenda of the Fifth General Conference on Communications and Transit).
20. Questions of Internal Organisation : Composition of the Permanent Committees.
21. Report of the Chairman on the Missions carried out by him since the Last Session of the Committee.
22. Communications by the Secretary-General of the Committee.

ANNEX 2.

[C.C.T.592.]

July 16th, 1935.

REPORT BY THE SECRETARIAT CONCERNING
CUSTOMS EXEMPTION FOR LIQUID FUEL USED IN AIR TRAFFIC.

The question of Customs exemption for liquid fuel used by motor vehicles crossing a frontier in traffic by land, river, sea and air, which was raised in the Commission of Enquiry for European Union at its third session, held from May 15th to 21st, 1931, by the representative of the German Government, was referred, in accordance with the resolution adopted by the Committee of Enquiry and approved by the Council on May 22nd, 1931 (sixty-third session), to the Advisory and Technical Committee for Communications and Transit. The latter, on the basis of the information collected by the Secretariat from the Governments members of the Commission of Enquiry for European Union, decided on December 1st, 1933 (eighteenth session), to adjourn consideration of this question to its next session, particularly in view of the fact that the enquiry held regarding the different forms of traffic had shown that in the present circumstances the question to be examined by the Committee was essentially a question of inland navigation, and the Committee did not think it a suitable time for making an immediate examination of the latter question. It was understood, however, that the Chairman of the Committee could take any necessary action in the matter.

As regards more particularly the question of Customs exemption for liquid fuel used in air traffic, discussions have recently been held by certain international bodies, including the International Commission for Air Navigation, and these discussions have given the impression that it might be possible to arrive at an international agreement on this subject.

In these circumstances, the Chairman of the Advisory and Technical Committee considered it necessary, before the possibility of reaching such an agreement was further considered, to obtain definite information as to the intentions of the Governments of the European countries in this matter.

Accordingly, the Secretary-General of the League of Nations, on the proposal of the Chairman of the Advisory and Technical Committee, sent to the Governments of the European States a Circular Letter, dated August 20th, 1934, requesting them to inform him whether they would be prepared to participate in an agreement to be concluded between the Governments of the above-mentioned States on the basis of the following text, which was the final outcome of the international discussions referred to above :

“ On arrival, the fuel and lubricants which are contained in the ordinary tanks of the aircraft shall not be liable to Customs or other duties. No quantity, however, may be disembarked free of duties.

“ On departure, fuel and lubricants intended for the refuelling of an aircraft proceeding to another contracting State are exempt from Customs or other duties. Nevertheless, in the case of a landing in its own territory, the State in which the aircraft has obtained its supply may make the granting of the exemption subject to certain specified conditions.”

As the result of this consultation, the Governments of the following States addressed replies to the Secretary-General : Austria, Belgium, United Kingdom of Great Britain and Northern Ireland, Bulgaria, Denmark, Free City of Danzig, Estonia, Finland, France, Hungary, Irish Free State, Iceland, Italy, Latvia, Lithuania, Norway, Netherlands, Poland, Portugal, Sweden, Switzerland, Turkey, Union of Soviet Socialist Republics.

Below will be found a detailed summary of these replies, reproducing all the observations and suggestions made by the several Governments. This material should place the Advisory and Technical Committee in possession of all such information as it may need to examine, at its nineteenth session, the question of Customs exemption for liquid fuel used in air traffic and such action as might appropriately be taken with regard to it.

* * *

Austria.—In principle, the Government has no objection to participating in the proposed agreement. Having regard to the legislation in force in the country, however, the Government would be prepared to become a party to an agreement based upon the following new text, which it wishes to propose :

“ On the arrival of a foreign aircraft in an aerodrome of any High Contracting Party the fuel and lubricants contained in the fixed tanks carried by the aircraft for this purpose shall not be liable to Customs or other duties. No part, however, of the said fuel or lubricants may be disembarked from the aircraft duty-free.

“ When a foreign aircraft takes off from an aerodrome in any contracting State for another contracting State, without landing at any intermediate point in the first-mentioned State, the aircraft may use foreign fuel and lubricants for such flying free of Customs or other duties. The use of fuel and lubricants without payment of Customs or other duties shall not be permitted for the purpose of flying between two or more aerodromes in the same contracting State.”

Belgium.—The Government states that exemption for fuel and lubricants carried on board aircraft on arrival is in practice already applied in Belgium. The Government can therefore give unqualified support to the first part of the proposal.

The Government also accepts the principle, already applied in Belgium, of the exemption of the quantities taken on board by aircraft on departure, subject, however, to the following conditions :

(a) That such exemption shall be granted only to foreign aircraft registered in another contracting State, each State remaining free to apply to its own aircraft such regulations as it may think fit ;

(b) That each State may decide on the conditions to which exemption shall be subject in its own territory—*e.g.*, as regards the minimum quantity which may be taken on board in this way—on account of the administrative complications which such exemption would entail in actual practice. For the same reason, lubricants should, in the Belgian Government's opinion, be excluded from such exemption on departure, on account of the small quantities taken on board and also of the difficulties caused by the fact that, as a general rule, they undergo certain special preparation after importation and before delivery to aircraft.

For these reasons, the Belgian Government suggests the following new text for paragraph 2 of the draft Agreement :

“ On departure for a foreign destination, the *fuel* taken on board in any contracting country for the refuelling of an aircraft having the nationality of another contracting State shall be exempt from all Customs or other duties. Each contracting State shall fix the conditions under which such exemption is to be granted in its own territory.”

United Kingdom of Great Britain and Northern Ireland.— The Government states that they are prepared in principle to participate in an agreement on the basis of the proposed text.

As regards its application in the United Kingdom, however, the reply specifies the following points :

Exemption on departure would be afforded in the form of a restitution of the duties paid.

Further, the laws in force in the United Kingdom already grant exemption on departure in respect of flights to a foreign destination, even when such flights include several intermediate landings at Customs aerodromes within the country, provided that notice be given of such intended landings on the application for clearance at the first Customs aerodrome of departure.

In the last place, the reply states that the corresponding facilities afforded to British aircraft in foreign countries are in general of a more limited character.

Bulgaria.—The Government agrees to participate in the proposed convention, if concluded. At the same time, it considers that it could become a party to such a convention subject to reciprocity. Furthermore, it reserves the right freely to discuss the conditions and formalities attaching to the proposed Customs exemption.

Denmark.—The Government states that it is prepared to participate in the proposed agreement.

Free City of Danzig.—The Senate intimates that it might be disposed to participate in an agreement on the lines of the proposed text.

In transmitting to the Secretariat the Free City's reply, the Polish Government points out that, as the territory of the Free City forms part of the Polish Customs territory, it would be interested in the proposed Convention only in so far as it provided for exemption from duties other than Customs duties.

Estonia.—The Government states that, after giving the matter careful consideration, the competent authorities felt unable to pronounce in favour of the proposed agreement.

Finland.—The Government is in principle prepared to participate in the proposed agreement, more particularly as the rules at present in force in Finland are, in their essentials, in consonance with the provisions of the draft agreement.

France.—The reply states that the Government has no objection to the text proposed as a basis of agreement, as the rules in question are already applied in France under the laws at present in force.

Hungary.—The Government states that it would be prepared to participate in an agreement on the basis of the proposed text.

The laws in force already grant exemption in respect of fuel carried on board aircraft on arrival, and the same applies to several Conventions concluded with other States.

The laws and Conventions in question, however, do not grant exemption for the quantities disembarked in the country and those used exclusively for flights within Hungarian Customs territory.

The Government therefore proposes that the last sentence in the first paragraph of the draft should be amended on those lines, and to that end submits the following new text :

“ Exemptions from Customs and other duties shall not, however, apply to any quantity disembarked by aircraft and disposed of for purposes of trade, or to the quantities used exclusively for flights within the Customs territory of a contracting State.”

Irish Free State.—The reply states that the Government would be prepared to consider favourably an agreement being concluded between the Governments of European countries on the basis of the draft text submitted.

Iceland.—The reply defines the attitude of the Icelandic Government as follows :

Fuel and lubricants carried on board aircraft on arrival are not liable to Customs duty, provided that they are not disembarked but are used for the continuation of the flight.

Furthermore, the laws in force do not authorise exemption from or restitution of the Customs duty in respect of fuel or lubricants which are purchased in Iceland, or which the aircraft takes on board in that country with a view to continuing its flight.

The accession of Iceland to an agreement on this subject would necessitate the amendment of the laws in force, and the Government cannot at the same time express any opinion as to the prospects of the adoption of such amendment.

Italy.—The Government is, in principle, prepared to participate in an agreement such as that proposed, provided always that—with a view to ensuring effective reciprocity—the agreement applies, not merely to the home territory of the contracting parties, but also to the other territories which are under their sovereignty or over which they exercise a protectorate or mandate.

Latvia.—The Government states that aircraft used in international traffic already enjoys the facilities which the draft proposes. In pursuance of the laws in force, for example, the Customs authorities treat petrol used in the international air traffic as goods in transit and therefore as exempt from Customs duties.

As regards the conclusion of the proposed agreement, however, the competent authorities have come to the conclusion that the participation of Latvia is not desirable, at least for the time being.

Lithuania.—The Government states that it would in all probability be prepared to participate in an agreement based upon the proposed text.

Norway.—The Government states that it is willing to participate in an agreement on the proposed basis, but that its accession would be contingent upon the maintenance of the rules described below, which are at present in force in its territory :

A duty of 10 ore per litre is levied upon fuel used by motor vehicles, and is included in the sale price. Air traffic, however, is exempt from this duty, which is not levied upon fuel carried in the tanks of aircraft on arrival and intended for their own use. Furthermore, as regards the quantities of fuel taken on board by aircraft on departure in Norway, the amount of the above-mentioned duty included in the sale price is refunded on application by the person concerned and on production of evidence of the quantities used.

Netherlands.—The Government stated that it had itself taken the initiative with a view to bringing about the conclusion of an international agreement regarding the Customs exemption of fuel for purposes of air traffic, and at the same time transmitted to the Secretariat a draft agreement on this subject which it had the intention of submitting to a number of European Governments. The text of this draft agreement was more limited in scope than the text proposed in the Secretary-General's Circular Letter: it confined Customs exemption on departure to traffic of a strictly international character, all further landings within the same country being excluded. The Government considered such a limitation essential, as an agreement not including such a restriction was, in its opinion, unlikely to prove generally acceptable.

On learning, however, of the similar proposal being put forward by the League of Nations, the Netherlands Government declared its willingness to withdraw its own draft in favour of that embodied in the Circular Letter.

Poland.—The Government states that it is prepared to participate in an agreement of this kind, if concluded. Customs exemption on the arrival of aircraft, as proposed in the first paragraph of the draft, is moreover similar to the provisions of the legislation on this subject at present in force in Poland.

The Government further desires to make it clear that it understands that, in the event of the conclusion of the proposed convention, Customs control will be governed by the autonomous regulations of each country.

Portugal.—The reply states that the Minister of Finance approves the draft agreement proposed, and that, furthermore, under the legislation now in force, no stamp duty is charged when such fuel is cleared through the Customs for re-export.

Sweden.—The Government states that, in principle, it sees no objection to the conclusion of the proposed agreement.

Switzerland.—The Government states that, having consulted the competent Federal authorities, it is in a position to announce that Switzerland would be able to participate in the proposed agreement.

Turkey.—The Government states that it is quite prepared to participate in the proposed agreement subject to certain reservations which it would have to enter in due course.

Union of Soviet Socialist Republics.—The Government states that it would be prepared to become a party to the proposed convention on Customs exemption.

ANNEX 3.

[C.C.T.594.]

September 27th, 1935.

OBSERVATIONS OF GOVERNMENTS ON THE REPORT OF THE
PREPARATORY COMMITTEE FOR THE UNIFICATION
OF BUOYAGE RULES.

The Advisory and Technical Committee for Communications and Transit, after taking cognisance of the replies of the Governments to Circular Letter 310.1931.VIII, set up a Preparatory Committee to carry on the work of the Conference held at Lisbon in 1930 with regard to the unification of the buoyage of coasts. The Preparatory Committee, which met in London from July 17th to 22nd, 1933, drew up a report, to which was attached a draft agreement and rules regarding a uniform system of buoyage.¹

At its eighteenth session, the Advisory and Technical Committee examined the results of the Preparatory Committee's work and, considering that this work had brought about the possibility of an agreement on the subject among a large number of countries, it decided to submit the draft agreement to the appreciation of the Governments which had been invited to the Lisbon Conference. In response to this decision, the Secretary-General of the League of Nations forwarded the above-mentioned documentation to the Governments in question. The following States have transmitted their observations on the report: Union of South Africa, United States of America, Australia, United Kingdom of Great Britain and Northern Ireland, Bulgaria, Canada, Chile, China, Denmark, Free City of Danzig, Egypt, Spain, Estonia, Finland, France, Irish Free State, Iceland, Italy, Japan, Latvia, Lithuania, Monaco, Norway, Netherlands, Poland, Roumania, Sweden, Union of Soviet Socialist Republics, Yugoslavia. A summary of these observations will be found below.

Union of South Africa.

In a letter dated October 15th, 1934, the Government of the Union stated that, as buoyage on the South African coasts was practically negligible, the Union Government had no observations to offer on the matter.

In regard to the question whether the Union Government would be prepared to conclude with other Governments an agreement for the unification of buoyage based upon the draft agreement and rules drawn up by the Preparatory Committee, the Union Government would prefer to defer its decision until the leading maritime Powers have definitely decided on the advisability or otherwise of adopting the scheme, as they are far more concerned in this matter than the Union Government, for the reasons indicated above.

Australia.

In a telegram dated September 22nd, 1934, the Australian Government stated that the draft agreement and rules were under reference with the States with whom compliance with the agreement principally rested. Meanwhile, the Australian Government had no observations to offer.

United States of America.

In a letter dated June 18th, 1934, the Government of the United States of America makes the following statement :

The American Government, though appreciating the opportunity to consider the proposals of the Preparatory Committee, is not prepared to approve the draft Rules nor to conclude with other Governments an agreement for the unification of buoyage based on them, for reasons which appear hereafter.

It will be recalled that the American Government, as set forth in its communication of June 28th, 1933, to the Secretary-General, found it impracticable to be represented at the preparatory meeting of experts at London. In consequence, no representative from the western hemisphere, in which a considerable proportion of the buoyage of the world is located, took part in the work of the Committee.

The draft Rules evolved by the Preparatory Committee appear to ignore the present status of world buoyage, as illustrated on the chart of the world presented by the Canadian delegation to the Lisbon Conference on Buoyage in 1930,² and the experience of seamen. The draft Rules call for a reversal of a considerable portion of the characteristics of much the greater part of the buoyage of the world. A number of countries, particularly of the American continent and along the western Pacific, with either large buoyage systems or extensive coastlines, are now using buoyage systems almost diametrically opposed to that proposed by the draft Rules. To modify the present systems, which have been maintained with marked consistency in most of the areas referred to, in order to make them conform to the draft Rules, would involve considerable confusion and more expense than the merits of the new system would seem to warrant. For example, adoption of the draft Rules would require, along most of the

¹ Documents C.465.M.238.1933.VIII and Appendix.

² Document C.163.M.58.1931.VIII, page 65 and map.

coast-line of the American continents, a reversal of the colour of buoys and painted beacons ; a reversal of the colour of buoy and beacon, channel and entrance lights ; a reversal of the numbering of aids to navigation ; the introduction for a number of these countries of the use of spherical buoys (the most costly shape to build) ; a change in the system of marking dangers, middle grounds and wrecks ; and the introduction of a shape distinction for the more expensive types of buoys. In addition to the direct heavy expense of such a programme and the increased cost of maintenance, it is estimated by responsible authorities that the resulting cost of changes that would be entailed in charts and nautical publications for the United States alone would be nearly \$500,000, including the costs to shipowners of replacing charts rendered useless. Though fully cognisant that unification of buoyage will involve expense, the American Government is of the opinion that it can be achieved equally effectively and at less cost and less chart change for nearly all countries than would be necessitated by the draft Rules, the latter appearing to entail practically the maximum of expense and change for the countries of the American continents, as well as for certain other countries.

From the technical standpoint, the draft Rules appear to be based primarily on certain theoretical grounds with respect to the requirements of an incoming vessel. When consideration is given to the extent of the existing buoyage systems developed during more than one hundred years and the extent to which mariners are accustomed to these systems, the comparatively minor theoretical advantages claimed for having a red buoy on one side or on the other side do not seem to form a sufficient ground for the great disturbance in world buoyage and the large expense to many countries which would be entailed by the adoption of the draft Rules, particularly in the absence of any apparent demand from seamen for such action.

Moreover, the draft Rules do not appear sufficiently to recognise that ships must pass through nearly all channels in both directions. As a great variety of situations arise in navigation along the coasts, due to visibility, currents, inside and outside entrances to channels, etc., the entrance to a channel from the sea should not, in the opinion of the American Government, be given the controlling weight which the draft Rules ascribe to it.

The International Marine Conference, held at Washington in 1889, adopted unanimously a report proposing that " buoys defining the starboard hand shall be painted a single red colour. Buoys defining the port hand shall be painted a single black colour, or a parti-colour." A general agreement on this subject was reached among the twenty-eight maritime countries, well distributed throughout the world, which were represented at this Conference. Although this Conference did not call for the formal adoption of its findings, its proposal for the allocation of the colour red was followed in whole or in large part by practically all of the countries represented which were interested in lateral buoyage. At the present time, a considerable degree of uniformity has been reached, it being this Government's understanding that 75 % of the total number of maritime nations, dominions and important political units in the maritime world are following this proposal of the Washington Conference, while half of the remainder use mainly the cardinal system. This is shown graphically on the map already referred to. Estimated by the total number of buoy stations in the world, the percentage of red buoys on the right-hand side is even higher. As to this most obvious feature in buoyage systems, the colours of the side channel buoys, a very considerable degree of uniformity now exists throughout the world, and in all of the continents, including Europe, North America and South America.

The Washington Conference was held before the day of lighted buoys, and therefore took no action on this subject. However, for a considerable proportion of the world's buoyage the red light now is also placed to the right, with the red buoy. While there is a region on the continent of Europe, including a number of countries, where the reverse holds true—*i.e.*, the red light is placed on the port side—this is the only important discordance now existing in world buoyage. The American Government believes that the most simple and inexpensive road to uniformity lies in changing the red lights of these coasts to the starboard side, as was unanimously recommended by the Technical Committee for Buoyage at Genoa in 1929, following a visit to North America by a group of leading European lighthouse experts to examine the systems in use there.

However, it is noted that the draft Rules now propose to reverse the action of the Washington International Marine Conference of 1889, as well as the recommendation of the Genoa Technical Committee, both of which, as has been mentioned above, placed the colour red to the starboard side for the entering vessel.

The large degree of uniformity now existing in the world is shown by the comparatively small amount of change that would actually be necessary to bring about substantially complete uniformity. This would appear possible of realisation through a group of European countries placing the red lights on their red buoys, another group of a few countries replacing the red buoys on the right where until recently they had them, and a few countries now in partial conformity systematising the remainder of their buoyage as to colour.

The report of the London Preparatory Committee gives no reasons for the proposed reversal of the position of the colour red, nor for disregarding the recommendations in this respect of

the Genoa Technical Committee. This is the principal point under discussion and is one which directly affects the present buoyage for a large proportion of the coasts of the world. The expense, and the departure from present practice and custom as to navigational aids, that would be caused by the proposal in the draft Rules, have been stated above. Notwithstanding these conditions, there appears to be some assumption that the procedure should be for the world to seek out and adopt a theoretically perfect system of buoyage, without regard to the cost or inconvenience that would be caused. All previous discussions have been on the basis of following the preponderance of existing practice so far as it has been found to be satisfactory to the mariner.

Because of this importance attributed to the allocation of the colour red, it is necessary to consider all technical and navigational aspects of the problem that have been brought forward. The authorised combination of red lights on one side and green lights on the other is often overlooked in these discussions. This will be reverted to, but, for the moment, consideration will be confined to the use only of red and white lights to distinguish the sides in lateral buoyage. The United States Government does not consider that it is necessary to have a white light on the right-hand side to enable vessels to direct their course to that side, as it would appear that the red light serves the purpose equally well or better, in view of the fact that it is a more distinctive colour than white and less liable to be confused with other white lights near port entrances. Moreover, under some seeing conditions the red light can be more readily picked up than the white. The principal danger to the incoming ship is the right-hand limit of the entrance or channel, to which side the vessel must keep.

The question of whether red or white is used for the colour of this light has no general bearing on the risk of collision, as during many years there have been no occurrences, to the knowledge of the United States Government, to support the contentions of collision danger that are made. The collision danger, alleged in this connection, seems not to be substantiated in the experience of seamen, mainly because there appears to be no confusion between ships' lights and buoy lights.

With the combination red and white, it is believed the white light with its greater range should preferably mark the left side of the entrance, as that is the more distant side. By this arrangement also the width of the entrance fairway is better defined for the information of the mariner. The navigator should properly have the more distinctive colour, red, on the nearer side which he must approach, and the more powerful light, white, on the farther side. It is understood that navigators who are familiar with this arrangement prefer it and object to a change. Only the first lateral light is concerned in this problem, and a red light in this position can readily be given increased power, if desirable; however, generally this is not necessary, as, leading to important entrances, there usually are principal approach lights, lighthouses or lightships, ordinarily equipped with white lights of long range, and also radiobeacons.

Much of the discussion appears to envisage a combination only of a red light and a white light to mark the opposite sides, and overlooks the fact that a number of harbour and channel entrances in the world, in various countries, are now marked with a red light on one side and a green light on the other side. The green light, with equal illuminant, has slightly less range than the red light; therefore the arguments advanced on behalf of the light with greater range being placed to the right fail in the locations where the combination of green and red lights is used. An attempt to build a world system, using green for side channel lights, on an original basic system which used green lights only for marking wrecks, seems to have given rise to confusion in this respect.

For any authority which has local preference for the white light to the right, or local objection to using the red light to the right, the situation can readily be met without reversing the position of red, by using the combination white light to the right and green light to the left; the combination of these two colours is provided for in the various proposals and has been shown to be efficient and popular with navigators.

The red light is not assigned the rôle of a danger signal in any of the proposals for buoyage, and it should not be. In buoyage it is not regarded as a signal of danger, in any special sense. The three light colours used in buoyage are all used to indicate dangers as circumstances require. For example, in the draft Rules, one of the uses of colour to indicate danger is the proposal to use green lights for wrecks. There is a marked tendency toward increased use of green lights in lateral buoyage, and theoretically red and green lights on buoys may be equally indicative of danger. It is neither possible nor desirable to ascribe to the colours of lights on aids to navigation the meanings which coloured lights have acquired in land or air transport. In none of the proposals is there provision that a red light is to be either avoided or approached; the same principles in this respect apply to the use of the three colours for lights: they may all warn of dangers according to their use. It is evident that, in any system of light colours on buoys, the navigator must on occasion approach the red light, and navigate his vessel on the side of the channel marked by red lights and red buoys.

A plan of having the red buoy on the same side as the red light of the entering vessel might well have been adopted a hundred years ago when buoyage systems were being developed, but

it was not. The point seems to have no practical significance at the present time, for the mariner can just as readily fix in his mind that the positions of red on buoy and ship are in accord when he is going out, as when he is coming in. Within the experience of the largest buoyage systems in the world, it is believed that no seaman has ever considered this matter of sufficient significance to comment upon it. It is fortunate that there is no confusion between ships' lights and buoy lights, and that it is immaterial, from the practical navigational viewpoint, to which side the colour red is allocated, as otherwise it would be impossible to evolve a satisfactory buoyage system. All the relations of ships' lights and buoy lights must be reversed on every voyage, when the ship turns around and goes out to sea. The actual differences between the requirements of the incoming and the outgoing vessel are so immaterial that a system that would be actually dangerous to the former would be nearly equally dangerous to the latter.

After a detailed examination of the reasons on which the draft Rules appear to be based, this Government is of the opinion that they are not adequately supported either theoretically or by the experience of navigators. Whatever weight they may have would not appear sufficient to overcome the objections on account of expense and departure from the tried and simple systems to which mariners are accustomed. No vital principle of good seamanship or of the science of navigation is involved in the problem of the side to which the colour red is allocated.

In support of the above statements, the following official information is submitted. The Panama Canal is marked at both entrances with red buoys and red lights on the right-hand side for incoming vessels. In seventeen years, 65,000 vessels of thirty-three different countries passed through the canal, and the responsible authorities state that no difficulties have been experienced through having red lights on the starboard hand and that no comment has been made regarding this position of the red light. In the official reports, extending over at least fifty years, of vessel accidents in the waters of the United States, there is no record of an accident attributable to the location of red lights on buoys on the starboard hand for the entering vessel. In the United States, red buoys have uniformly been placed on the starboard side for eighty-three years, and red lights for forty-four years, constituting probably the most thorough test ever made in the world of a traffic signal system. There is on record no instance of any confusion or accident due to this position of the red light and buoy, or of any unfavourable comment on it. The steamship owners' associations and mariners' organisations and navigators individually of the United States have uniformly opposed a change with respect to the basic feature of the allocation of the colour red to the right.

Among the technical features of the draft Rules, other than that of allocating the colour red, which present difficulties is the provision that wrecks shall be marked by green intermittent lights on either side of the channel, and therefore, on occasion, on the red side of the channel. For example, the draft Rules propose that a triple-flash green light shall signify a wreck to be left to starboard, a double-flash green light a wreck to be left to port, an occulting green light a wreck to be passed on either side, and a green light of any character differing from the above shall mark the starboard side in the lateral system. Considering the uncertainties in flashing mechanisms, the effect of the rolling of buoys on the appearance of flashes, and the extremely unfavourable seeing conditions under which navigators must at times proceed, the American Government regards the foregoing complicated use of green lights for purposes diametrically opposite to each other, and conflicting with the use of green lights in the lateral system, as unsuitable for a buoyage system and liable to result in disaster.

Also the draft Rules do not appear to offer an adequate system at night for distinguishing between buoys marking the sides of channels, middle grounds, isolated dangers and mid-channel buoys. Also the draft Rules provide no shape distinction for middle-ground buoys indicating a choice between the two channels, although providing a colour distinction for this purpose.

The draft Rules propose that even numbers shall be assigned to the left-hand side of the channel, although this is not the present practice of any country. No nautical principle is believed to be involved in the question of the allocation of even and odd numbers to one side or the other of a channel, and this Government has no knowledge of a desire on the part of seamen for a reversal in this respect of the system uniformly in use by all countries of the world which follow a system. The question is in itself a minor one, which could readily be decided either way on technical grounds. But, in practice, such a change as is called for in the draft Rules would involve considerable difficulty and expense both as to the marks themselves and as to the charts and publications on which they are represented, and stated advantages of which would appear insufficient to justify the expense and confusion that it would cause, and the departure from the system to which mariners are accustomed.

It should be pointed out that the draft Rules propose a buoyage and lighting system which as a whole has not been tried out in practice and, as to a number of details, is experimental. They also, in the opinion of this Government, depart widely from the degree of simplicity which is so desirable in a plan for aids to navigation, considering the difficult conditions under which

navigators are on occasion required to work. The draft Rules appear to be more complex than any system that has heretofore been used for buoyage, and it is to be doubted whether countries and mariners would carry out so complicated a system.

These are additional grounds for proceeding cautiously in the development of a system of aids to navigation, and for basing it on actual trial and the experience of mariners, rather than undertaking to build up a new and theoretical system, without regard for existing progress in the direction of uniformity of buoyage. It is obvious that countries which now have uniformity of buoyage, on a plan found by seamen to be safe and satisfactory, will encounter serious difficulties should they attempt to bring about acceptance of a radically different and untried system, without adequate impelling reasons, and that these difficulties will be great in proportion to the extent and importance of the systems which the countries maintain, and the consistency with which they have adhered to them.

Whatever changes in sentiment may have occurred since the time of the Lisbon Conference, there is no evidence that a reversal of the Genoa Committee report, as now proposed in the draft Rules, is likely to be accepted with any degree of unanimity, or by countries controlling the greater part of the buoyage of the world. Should such be the case, the draft Rules will not approach the end sought—namely, world uniformity of buoyage. Indeed it is possible that they may have the opposite effect, by consolidating fundamentally opposite systems. There is, at the present time, a considerable degree of uniformity of buoyage in the world, and it is possible that a situation might be brought about where there would be less uniformity than there is to-day, and where, in different areas of the world and around the borders of the great oceans, there might result a lack of system and a situation materially less satisfactory than exists at the present time.

In the final paragraph of its report, the Preparatory Committee seems to have envisaged the possibility that, failing general agreement on the basis of the draft Rules, regional conformity might be obtainable. The American Government would be unwilling to concede as yet that substantial world uniformity of lateral buoyage be abandoned in favour of conflicting systems of regional uniformity to which objections are obvious, though, as to cardinal buoyage, the American Government feels that such system or systems as may be used should be a matter for agreement between the countries concerned. The cardinal buoyage system recommended by the Preparatory Committee is not particularly applicable to the coasts of this country and it is doubtful whether the United States would make use of cardinal marking in view of the advantages of adhering to a single simple uniform system. It is felt that the recommended cardinal system is at present of principal interest to a region of Northern Europe and it is understood there has been no tendency to extend the principles of cardinal buoyage outside of this region.

The Government of the United States has taken an active part in previous efforts toward uniformity of lateral buoyage, in view of the great extent of its system of buoyage and coast and channel lighting. In pursuance of this Government's desire to be of all possible assistance in establishing world uniformity of lateral buoyage, there is transmitted herewith a draft system of international uniform buoyage (see Appendices I, II and III), which appeals to this Government as being readily susceptible of adoption by all States concerned. The authorities of this Government were unable to complete the preparation of this draft system in time for the meeting of the Preparatory Committee in London.

Appendix I.

DRAFT OF A UNIFORM INTERNATIONAL SYSTEM OF BUOYAGE.

Based on the present state of world buoyage, and adhering to the recommendations of the International Marine Conference of 1889 at Washington, and of the League of Nations Technical Committee of 1929 at Genoa.

Buoy Colours and Shapes.

Lateral channel buoys ; red, conical, to the right ; black, cylindrical, to the left.

Middle-ground buoys, where the main channel is to the right or the channels are of equal importance, cylindrical shape, black and red, or black and white horizontal bands, with top band black ; where the main channel is to the left, conical shape, red and black, or red and white horizontal bands, with top band red.

Obstruction or isolated danger buoys ; black and red horizontal bands, shape cylindrical or conical ; if distinctive shape is desired, spherical may be used. If desired, there may be a narrow white band, not at the top of the buoy.

Fairway (mid-channel) buoys ; black and white vertical stripes.

Quarantine buoys ; yellow.

Anchorage buoys ; white.

Buoy Numbers.

If used for lateral buoys ; even numbers to the right, odd numbers to the left, increasing from seaward.

Buoy Lights.

Lateral buoys ; ordinary flashing or intermittent lights, or fixed lights where necessary, colour of lights, red or white to the right, white or green to the left. When white lights are used on both sides, an even number of flashes to the right, an odd number to the left.

Middle-ground and obstruction buoys; lights generally white if to be passed on either side, and otherwise red or green as appropriate to the preferred side for passing; if distinctive type of light is desired, a quick flashing light may be used.

Fairway (mid-channel) buoys; lights usually white; if distinctive type of light is desired, alternate short and long flashes may be used.

Wrecks.

Wrecks are to be marked to show the side on which they are to be passed, by the buoy colour and shape distinctions, and by the light colours, of the lateral system, or by other characteristics not likely to be confused with that system; if distinctive type of flash is desired, an interrupted quick flashing light may be used. Upper half of buoy body green (optional).

Notes.

Channel sides are defined with reference to a vessel entering from seaward.

These characteristics apply also to minor fixed aids of similar purpose, so far as feasible. They do not, in general, apply to lightships or principal lighthouses.

Shape distinctions are desirable for all buoys but they may be omitted or deferred where not considered practicable for particular types of buoys, such as spar buoys and lighted, bell, and whistle buoys, or the shape distinctions may be indicated by topmarks with shape and colour as prescribed for buoys on the corresponding positions.

Deviations, or further distinctions, are allowed, where necessary, provided they are not likely to be confused with these characteristics, and do not conflict with the general principles of the allocation of characteristic colours, shapes, etc.

Cardinal System.

As agreed upon by the countries concerned, and not conflicting with the lateral system.

Appendix II.

MEMORANDUM ON A DRAFT UNIFORM INTERNATIONAL SYSTEM OF BUOYAGE.

The draft system of uniform buoyage as set forth in the Appendix I is based on a measure of unification of proven acceptability to the mariner which has long been consistently maintained and now exists in the major portion of the territorial waters of the countries of the world.

In its preparation, the following considerations were weighed:

- A system nautically and technically correct and proven to be satisfactory to the mariner;
- A system already in extensive use, in part or in whole, throughout the world;
- The use as to colour, location, etc., of the system to which seamen are now most accustomed, and which has been the most thoroughly tested;
- The least disturbance of existing systems of buoyage, and the least expense in changes required, both to Governments and to shipowners;
- The minimum of changes in charts and nautical publications;
- Simplicity, with a minimum requirement for the recognition by seamen of various and complicated characteristics;
- Distinctiveness of characteristics, with the avoidance of likelihood of confusion;
- Flexibility, with allowance for meeting local conditions, within reasonable limitations.

It is believed that the system as outlined would require no change from the present practice for considerably more than half of the buoyage and coast lighting of the world, and appreciably less change for all but a very few countries in the Mediterranean area, than would be necessitated by the adoption of the draft Rules of the London Preparatory Committee. Moreover, so far as concerns the uniformity of buoyage now existing in North and South America, and largely in Asia and Australia, no change would be necessary under this draft system. On the other hand, according to statistics presented at the Lisbon Conference, the draft Rules of the London Preparatory Committee, if adopted, would require ten times more change than would be necessitated under this system. Moreover, this system offers, for optional consideration, important possibilities in the way of technical advance in buoyage, through indicating the rôles of buoys at night by simple and unmistakable flash characteristics, as they are now distinguished by day through colour and shape distinctions. This use of flash characteristics for buoys at night is at present under extensive test in the United States, with satisfactory results.

It is believed that this system is in accord with the decisions of the Washington International Marine Conference of 1889, and in accord with the report of the Technical Committee for Buoyage and Lighting of Coasts at Genoa in 1929, which were both widely representative of the maritime nations of the world. The above Technical Committee, representing ten maritime countries, unanimously adopted at Genoa a report which stated that "the Committee is convinced that the proposals contained in its report now constitute a satisfactory basis for unification of maritime signals". The most important of these proposals recommended by this Committee at Genoa, and the one which received the most careful consideration, was one for retaining the use of the colour red, both for buoys and lights, on the right-hand side of the entering vessel. The printed record of the Lisbon Conference of 1930 shows that the representatives of substantially all the countries of continental Europe concerned in lateral buoyage stated that they were prepared to accept at that time the recommendation of the Genoa Committee. This draft system also agrees substantially with the plan presented by the Japanese representatives at the London Preparatory Committee meeting in July 1933.

Appendix III.

PROPOSAL FOR A UNIFORM INTERNATIONAL SYSTEM OF BUOYAGE.

Based on the Present State of World Buoyage, and adhering to the Recommendations of the International Marine Conference of 1889 at Washington, and of the League of Nations Technical Committee of 1929 at Genoa.

LATERAL CHANNEL BUOYS.

Left side of channel, entering.



Lights, white or green, ordinary flashing or occulting. Odd numbers, if any.

Right side.



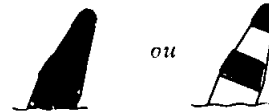
Lights, red or white, ordinary flashing or occulting. Even numbers, if any.

MIDDLE-GROUND OR BIFURCATION BUOYS.

Alternative.



Alternative.



Main channel to the right. Lights, green or white, quick flashing (optional).

Main channel to the left. Lights, red or white, quick flashing (optional).

OBSTRUCTION OR ISOLATED DANGER BUOYS.



Alternative.



Lights, white, red or green, quick flashing (optional).

FAIRWAY OR MID-CHANNEL BUOYS.



Lights, white (usually). Short-long flash (optional).

WRECK BUOYS.

Shape and colour to indicate side on which to pass ; upper half green (optional). Lights, interrupted quick flash (optional), light colour to indicate side on which to pass.

CARDINAL SYSTEM.

As agreed upon by the countries concerned, and not conflicting with the lateral system.

UNITED KINGDOM OF GREAT BRITAIN AND NORTHERN IRELAND.

In a letter of August 26th, 1935, the United Kingdom Government transmitted its suggested amendments to the draft rules with explanatory notes (see memorandum below).

His Majesty's Government are strongly of the opinion that diagrams illustrating standard shapes for the marks and topmarks mentioned in the rules should be attached to the rules in their definitive form, so as to prevent misunderstanding of the meaning of the terms used and ensure a reasonable degree of uniformity of shape and colouring. Rigid adherence to the illustrations would not be expected, but substantial conformity should be aimed at. His Majesty's Government suggest that, as, in their opinion, the diagrams attached to the draft rules drawn up by the Preparatory Committee are not entirely suitable for the purpose in view, a small sub-committee should be appointed by the League of Nations to settle the form of these diagrams.

It is suggested that Trinity House types for the lateral system of buoyage might, in the first place, be considered. They would, however, have to be supplemented by others, in order to cover all the marks referred to in the rules. If desired, a set of diagrams would be prepared by Trinity House and forwarded for consideration.

MEMORANDUM ON THE DRAFT RULES CONCERNING A UNIFORM SYSTEM OF BUOYAGE DRAWN UP BY THE PREPARATORY COMMITTEE.

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|--|--|
| <p>CHAPTER I.—GENERAL.</p> <p><i>Article 1.—Definitions.</i></p> <p><i>Article 2.—Buoyage Systems.</i> There are two principal systems of buoyage, the lateral and the cardinal : The <i>lateral</i> system is generally used for well-defined channels ; buoyage-marks indicate the position of dangers in relation to the route to be followed by mariners in their vicinity. The <i>cardinal</i> system is generally used to indicate dangers where the coast is flanked by numerous islands, rocks and shoals, as well as to indicate dangers in the open sea.</p> <p><i>Article 3.—Use of Systems.</i></p> <p><i>Article 4.—Principal Types of Marks.</i> The principal types of marks employed in the lateral and cardinal systems are : conical, can, spherical, spindle, ogival, spar.</p> <p><i>Article 5.—Characteristic Shapes of Marks.</i> The characteristics of the principal types of marks are shown either by the shape of the upper part of the body of the mark or by the shape of a superstructure secured to the mark.</p> | <p>Nil.</p> <p>Add at the end : " In this system, the bearing (true) of the mark from the danger is indicated to the nearest cardinal point ".</p> <p>Nil.</p> <p>Substitute the following article and transfer it to the commencement of "Chapter II.—Lateral System" :</p> <p>" <i>Article 5. — Principal Types of Marks.</i> " The principal types of marks employed in the lateral system are : conical, can, spherical and spar (which latter includes the spindle type—<i>i.e.</i>, a tapered spar)".</p> <p>Insert the word " floating " between the words " of " and " marks ", and add the following sentence at the end of the article :</p> <p>" The characteristics of the principal types of fixed marks are shown either by the shape of the body of the</p> | <p>Nil.</p> <p>The proposed addition will make the nature of the cardinal system much clearer to those who have no knowledge of it. To a slight extent, it duplicates information given in the first paragraph of Article 16, but it is not thought that objection need be taken to this.</p> <p>Nil.</p> <p>See also Article 13. It is considered preferable to describe the principal types of marks separately under each of the two systems instead of in one general article. In the lateral system, it appears to be unnecessary to distinguish between the spindle type and the spar type of mark, and, in the interests of simplicity, it is therefore proposed to include spindles under the head of spars.</p> <p>By Article 1, beacons and other fixed marks will be covered by the Rules, but Article 5, as drafted by the London Committee, does not fully take account of this fact.</p> |

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
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| <p align="center">CHAPTER II.—LATERAL SYSTEM.</p> <p><i>Article 6.—Position of Marks.</i></p> <p>.....</p> <p><i>Article 7.—Shapes of Topmarks.</i></p> <p>The principal shapes of topmarks have the appearance of :</p> <p>A cone, A cylinder, A sphere.</p> <p>Other shapes have the appearance of :</p> <p>A diamond, A St. George's cross, A " T ".</p> <p><i>Article 8.—Marking of Sides of Channels.</i></p> <p>Marks on the two sides of a channel are characterised as follows :</p> <p>(a) <i>Starboard-hand marks :</i></p> <p>Shape or type : Cone, spindle, or spar. Colour : Black, or, for purposes of differentiation, black and white chequers ; or, for spars, for purposes of differentiation or visibility, black with the upper part white. Topmark (if any) : A cone point upwards, coloured black.</p> <p>(b) <i>Port-hand marks :</i></p> <p>Shape or type : Can, spindle, or spar. Colour : Red, or, for purposes of differentiation, red and white chequers, except in the case of spars. Topmark (if any) : A cylinder coloured red.</p> <p>N.B. — On spars, a broom in the form of a cone point downwards may be used as a topmark instead of a cylinder, but a topmark on the starboard hand shall have the appearance of a cone point upwards.</p> <p>For purposes of differentiating topmarks, the use of a diamond for starboard-hand marks and a " T " for port hand marks is allowed, provided that these alternative topmarks are not used at the entrance of a channel.</p> <p>The use of yellow instead of white in the chequers is permitted in secondary channels (channels which are alternative to main channels).</p> <p><i>Article 9.—Numbering or Lettering.</i></p> <p>.....</p> | <p>mark or by the shape of a topmark surmounting the mark."</p> <p>Nil.</p> <p>Substitute the following : " The shapes of topmarks for which definite provision is made in these Rules are : " A cone, " A can, " A sphere, " A diamond, " A St. George's cross, " A ' T ' ."</p> <p>Substitute the following : " Marks on the two sides of a channel are characterised as follows : " (a) <i>Starboard-hand marks :</i> " Shape or type : Conical or spar. " Colour : Black, or, in the case of conical marks for purposes of differentiation, black and white chequers ;¹ in the case of spars, for purposes of differentiation or visibility, black with the upper part white. " Topmark (if any) : Cone, point upwards, coloured black, or, for purposes of differentiation, a diamond, except at the entrance of a channel. " On spars, a broom in the form of a cone point upwards may be used. " (b) <i>Port-hand marks :</i> " Shape or type : Can or spar. " Colour : Red, or, in the case of can-shaped marks, for purposes of differentiation, red and white chequers.¹ " Topmark (if any) : Can, coloured red, or, for purposes of differentiation, a ' T ', except at the entrance of a channel. On spars, a broom in the form of a cone point downwards may be used."</p> <p>Nil.</p> | <p>If the preceding article is transferred to Chapter II, as proposed, this article should be renumbered " 4 ".</p> <p>Nil.</p> <p>The article in its revised form in column (2) sets out all the shapes of topmarks which are definitely authorised or required by the Rules, whilst at the same time indicating that the use of other forms of topmark is not prohibited in special cases.</p> <p>The references to the spindle type of mark have been omitted (see Article 4, second paragraph of Remarks), and the whole article has been re-drafted with a view to greater clarity. No alteration has been made in any of its provisions, except as regards the spindle shape.</p> <p>Nil.</p> |
| <p>.....</p> | <p>Nil.</p> | <p>Nil.</p> |

¹ The use of yellow instead of white in the chequers is permitted in secondary channels (channels which are alternatives to main channels).

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) | | | | | | | | | | | | |
|---|---------------------------|----------------|-------------|------------------|---------------------------------|---|---------------|---|---------------------|---|-------------|---------------------------------|--|--|
| <p><i>Article 10.—Lighted Marks.</i></p> <p>Lights on marks on the two sides of a channel are differentiated by colour or by rhythm where preferred or by a combination of both colour and rhythm—viz. :</p> <p>(a) Starboard-hand lights : White lights showing one or three flashes or occultations ; green lights of a character not allocated to the marking of wrecks (see Article 23) ; or both white lights and green lights with the above characteristics.</p> <p>(b) Port-hand lights : Red lights showing any number of flashes or occultations up to four ; white lights showing two or four flashes or occultations ; or both red lights and white lights with the above characteristics.</p> <p><i>Article 11.—Middle-Ground or Bifurcation or Junction Marks.</i></p> <p>Marks at the ends of middle grounds have the following characteristics :</p> <p>Shape or type : Spherical, spindle, or spar.</p> <p>Colour : Red and white horizontal bands where the main channel is to the <i>right</i> or the channels are of <i>equal importance</i> ; black and white horizontal bands where the main channel is to the <i>left</i>.</p> <p>Topmarks (if any) :</p> <p>(a) Main channel to the <i>right</i> :</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 10px;">Outer end, a cylinder</td> <td rowspan="2" style="font-size: 2em; padding: 0 10px;">}</td> <td rowspan="2" style="padding-left: 10px;">Painted red</td> </tr> <tr> <td>Inner end, a "T"</td> </tr> </table> <p>(b) Main channel to the <i>left</i> :</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 10px;">Outer end, a cone point upwards</td> <td rowspan="2" style="font-size: 2em; padding: 0 10px;">}</td> <td rowspan="2" style="padding-left: 10px;">Painted black</td> </tr> <tr> <td>Inner end, a diamond (two cones base to base)</td> </tr> </table> <p>(c) Channels of <i>equal importance</i> :</p> <table border="0" style="margin-left: 20px;"> <tr> <td style="padding-right: 10px;">Outer end, a sphere</td> <td rowspan="2" style="font-size: 2em; padding: 0 10px;">}</td> <td rowspan="2" style="padding-left: 10px;">Painted red</td> </tr> <tr> <td>Inner end, a St. George's cross</td> </tr> </table> <p>N.B.—Where the body of the mark is not spherical, a spherical topmark is placed immediately below the topmarks indicated in (a), (b) and (c), as the case may be.</p> <p><i>Lighted Marks.</i>—The characteristics of lights on these marks shall, as far as possible, be distinctive ; provided that no colours are used other than those prescribed in Article 10 above, and provided also that neither colour nor rhythm, nor combinations of colour and rhythm, shall be such as to lead to uncertainty with regard to the side on which the marks shall be passed.</p> <p>When lights with distinctive characteristics cannot conveniently be adopted, the lights shall conform to the rules prescribed in Article 10 and shall, as far as possible, be differentiated from neighbouring lights.</p> | Outer end, a cylinder | } | Painted red | Inner end, a "T" | Outer end, a cone point upwards | } | Painted black | Inner end, a diamond (two cones base to base) | Outer end, a sphere | } | Painted red | Inner end, a St. George's cross | <p>The words " where preferred " should be transferred from their present position after the word " rhythm " to after the words " colour or ".</p> <p>Under " Shape or type " omit the word " spindle ".</p> <p>Under Topmarks (a), substitute the word " can " for the word " cylinder ".</p> | <p>With regard to the use of single occulting green lights, see Article 23, second paragraph of Remarks.</p> <p>See Article 4, second paragraph of Remarks.</p> <p>This will follow the nomenclature proposed for Article 7.</p> |
| Outer end, a cylinder | } | | | Painted red | | | | | | | | | | |
| Inner end, a "T" | | | | | | | | | | | | | | |
| Outer end, a cone point upwards | } | Painted black | | | | | | | | | | | | |
| Inner end, a diamond (two cones base to base) | | | | | | | | | | | | | | |
| Outer end, a sphere | } | Painted red | | | | | | | | | | | | |
| Inner end, a St. George's cross | | | | | | | | | | | | | | |
| <p><i>Article 12.—Mid-channel Marks.</i></p> | <p>Nil.</p> | <p>Nil.</p> | | | | | | | | | | | | |

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
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| <p align="center">CHAPTER III.—CARDINAL SYSTEM.</p> <p><i>Article 13.—Shape of the Body of the Mark.</i></p> <p>If a distinction as to shape is made between the marks, the shape is as follows : Conical, cylindrical, ogival or spindle.</p> <p><i>Article 14.—Shape of Topmarks.</i></p> <p>.</p> <p><i>Article 15.—Characteristic Colours.</i></p> <p>.</p> <p><i>Article 16.—Allocation of Characteristics to the Quadrants.</i></p> <p>.</p> | <p>Amend to read as follows :</p> <p>“ <i>Article 13.—Principal Types of Marks.</i></p> <p>“ The principal types of marks employed in the cardinal system are : Conical, cylindrical, ogival, spindle, and spar.”</p> <p>Nil.</p> <p>Nil.</p> <p>Nil.</p> | <p>See Remarks on Article 4 (column (3)).</p> <p>Nil.</p> <p>Nil.</p> <p>Nil.</p> |
| <p align="center">CHAPTER IV.—MARKS COMMON TO BOTH SYSTEMS AND OTHER MARKS.</p> <p><i>Article 17.—Isolated Danger Marks.</i></p> <p>Isolated danger marks are used where it is desired to mark a danger which can be adequately indicated by a single mark and may be passed on either hand.</p> <p>These marks are as follows :</p> <p>Shape or type : Spherical, spindle, or spar.</p> <p>Colour : Wide black and red horizontal bands separated, if desirable, by a narrow white band.</p> <p>Topmark (if any) : Spherical painted black or red, or half-black and half-red, horizontally.</p> <p>Light (if any) : Rhythmic, either white or red.</p> | <p>For “ Isolated danger marks . . . spindle, or spar ”, substitute :</p> <p>“ Where it is desired to use a special mark for a danger which can be adequately indicated by a single mark and which may be passed on either hand, the mark shall be as follows :</p> <p>“ Shape or type : Spherical or spar.”</p> <p>Under “ Topmark ”, substitute the word “ sphere ” for the word “ spherical ”.</p> | <p>The amended form of the article in column (2) will indicate more clearly that a Buoyage or Lighting Authority need not mark any danger with an “ isolated danger mark ” unless they consider this method of marking the most suitable in the circumstances of the case.</p> <p>This will follow the nomenclature used in Article 7.</p> |
| <p><i>Article 18.—Landfall Marks.</i></p> <p>Landfall marks serve to indicate the seaward approach to a harbour, river or estuary. These marks are as follows :</p> <p>Shape : Optional.</p> <p>Colour : Black and white, or red and white, vertical stripes.</p> <p>Light (if any) : Rhythmic.</p> | <p>Amend the first paragraph to read as follows :</p> <p>“ Landfall marks serving to indicate the seaward approach to a harbour, river, or estuary are as follows : ”</p> <p>Insert after the words “ Shape : Optional ”, the words “ but must not be misleading, having regard to the Rules for channel marking ”.</p> | <p>Nil.</p> |
| <p><i>Article 19.—Transition Marks.</i></p> <p>Buoys indicating the transition between the cardinal and lateral systems are painted with red and white or black and white spiral bands.</p> | <p>Substitute the following for the words after the word “ are ” : “ as follows :</p> <p>“ Shape : Optional, but must not be misleading, having regard to the Rules for channel marking.</p> <p>“ Colour : Either red and white or black and white spiral bands.”</p> | <p>Nil.</p> |

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|---|--|
| <p><i>Article 20.—Quarantine - Ground Marks.</i> Shape : Optional. Colour : Yellow.</p> <p><i>Article 21.—Outfall and Spoil-Ground Marks.</i> Shape : Optional. Colour : Yellow above and black below.</p> | <p>Add after " Shape : Optional ", the words " but must not be misleading, having regard to the Rules for channel marking".</p> <p>Amend to read as follows : " Shape : Optional, but must not be misleading, having regard to the Rules for channel marking. " Colour : Yellow above and black below. " Light : Optional, but due regard should be paid to character of other lighted marks in the vicinity."</p> <p>Insert the following article between Nos. 21 and 22 : " Areas used for Naval, Military or Air Force Practice Purposes. — Marks indicating the limits of such areas are as follows : " Shape : Optional. " Colour : White with appropriate inscription in red — e.g., 'D.A.' for Danger Area".</p> | <p>Nil.</p> <p>Nil.</p> <p>As it is becoming increasingly common for such areas to be marked by buoys, a rule governing their marking is considered desirable.</p> |
| <p>CHAPTER V.—MARKING OF WRECKS.</p> | | |
| <p><i>Article 22.—General Provisions.</i></p> | <p>Nil.</p> | <p>Nil.</p> |
| <p><i>Characteristics in the Lateral System.</i></p> | | |
| <p><i>Article 23.—Wreck-marking Buoys.¹</i> Colour : Green.</p> | | |
| <p>(a) If to be passed on the <i>starboard hand</i> :</p> | <p>After the words " Colour : Green ", insert the words " (including topmark (if any)) ". For " Topmark (if any) : Conical " under (a) substitute " Topmark (if any) : Cone."</p> | |
| <p>Shape or type : Conical, spindle or spar. Topmark (if any) : Conical. Light (if any) : Triple-flashing green.</p> | | <p>As regards the omission of the word " spindle ", see Article 4, second paragraph of Remarks.</p> |
| <p>(b) If to be passed on the <i>port hand</i> :</p> | <p>Omit the word " spindle " under " Shape or type " in paragraphs (a), (b) and (c).</p> | <p>Strong representations have been made by Buoyage and Lighting Authorities in the United Kingdom that it would be preferable to reserve single occulting green lights for wreck-marking and not to use them also for channel-marking, which it is considered might lead to confusion. It is therefore proposed that the character of the occulting green light to be exhibited under (c) should not be restricted to one giving equal periods of light and darkness, to which certain authorities see objection, preferring a character which, in all conditions of weather, etc., will be unmistakably occulting.</p> |
| <p>Shape or type : Can, spindle or spar. Topmark (if any) : Can. Light (if any) : Double-flashing green.</p> | | |
| <p>If the body of the mark in the cases of (a) and (b) above does not conform to the characteristic shape, the lower part of the mark shall be coloured black or red, as the case may be, but the predominant colour shall be green.</p> | | |
| <p>(c) If to be passed on <i>either hand</i> :</p> | <p>Under " (c) ", substitute the following paragraph for the paragraph commencing " Light (if any) " : " Light (if any) : Single occulting green."</p> | |
| <p>Shape or type : Spherical spindle or spar. Topmark (if any) : Spherical. Light (if any) : Occulting green, giving equal periods of light and darkness. The duration of each period shall not be less than three seconds.</p> | | |

¹ When posts fixed in the ground are used to mark wrecks in shallow waters, they conform to the rules.

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|---|---|
| <p>Where a wreck which can be passed on either hand is marked by more than one light, the lights may be differentiated by different periods of occultation.</p> <p><i>Article 24.—Wreck-marking Vessels.</i></p> <p>They display green painted shapes :</p> <p>(a) If to be passed on the mariner's <i>starboard hand</i> :</p> <p>Two spheres surmounted by a cone point upwards in a vertical line.</p> <p>(b) If to be passed on the mariner's <i>port hand</i> :</p> <p>A sphere surmounted by a cylinder in a vertical line.</p> <p>(c) If to be passed on <i>either hand</i> :</p> <p>Four spheres disposed vertically by pairs.</p> <p>The shapes are disposed so as to be distinctly visible above the vessel's superstructure.</p> <p>The shapes shall be disposed vertically with a clear space between each shape equal to not less than one and a half times the diameter of the spherical shape.</p> <p>The horizontal distance between the shapes in (c) shall be as great as possible and in no case less than twice the vertical distance between the shapes.</p> <p>Lights : fixed green ; shall correspond in number and arrangement to the shapes mentioned above.</p> <p>Vessels marking wrecks shall not carry the ordinary riding-light carried by a vessel at anchor.</p> <p>Sound signals : On manned wreck-marking vessels during fog, mist, falling snow or heavy rainstorms, a bell, if used, is rung at intervals of not more than thirty seconds, as follows :</p> <p>Three strokes, if the vessel is to be passed on the mariner's <i>starboard hand</i> ;</p> <p>Two strokes, if the vessel is to be passed on the mariner's <i>port hand</i> ;</p> <p>Four strokes, if the vessel can be passed on <i>either hand</i>.</p> <p>N.B. — Should sound signals be given by means other than by a bell, they shall be such as not to be mistaken for neighbouring sound signals.</p> | <p>For the word "light" in the last paragraph, substitute the words "lighted buoy".</p> <p>Add the following footnote to correspond with the footnote to the heading to Article 23 :</p> <p>"Where shapes and/or lights are exhibited from the wreck itself, instead of a floating mark being used, the colour green shall be employed and the shapes and/or lights shall not conflict with the Rules laid down in this article."</p> | <p>It appears desirable to make provision for the case of shapes and lights being exhibited from the wreck itself, as this form of marking may sometimes, particularly in narrow waters, be the only practicable one.</p> |
| <p><i>Characteristics in the Cardinal System.</i></p> <p><i>Article 25.—Wreck-marking Buoys.</i></p> <p>Wreck marks are only placed in the eastern and western quadrants and have the following characteristics :</p> <p><i>Eastern quadrant :</i></p> <p>Shape or type : Conical, ogival, or spar.</p> <p>Topmark (if any) : Two cones base to base.</p> <p>Colour : Green.</p> <p>Light (if any) : Green, interrupted flashing, giving a succession of rapid flashes, at a rate of at least forty per minute for a given period, followed by a given period of darkness.</p> | <p>Add the following note :</p> <p>"Where the shape of the mark used is conical, cylindrical spindle or spar, topmarks are compulsory in order to distinguish the wreck-marking buoys of the cardinal system from the wreck-marking buoys of the lateral system."</p> | <p>The suggested proviso appears to be necessary in order to prevent possible confusion.</p> |

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|---|---|
| <p><i>Western quadrant :</i></p> <p>Shape or type : Cylindrical, spindle, or spar.</p> <p>Topmark (if any) : Two cones point to point.</p> <p>Colours : Green.</p> <p>Light (if any) : Green flashing, at a rate of at least forty flashes per minute.</p> <p align="center">CHAPTER VI.—MISCELLANEOUS PROVISIONS.</p> <p><i>Article 26.—Undefined Marks.</i></p> <p>Marks whose purpose is not defined in these rules are coloured in such a way as not to lead to confusion with marks whose purpose is defined in these Rules. The characteristics of bell and whistle buoys have, if practicable, the appropriate characteristics laid down in these Rules.</p> <p>Certain fixed marks indicating, for instance, the direction to be followed by a mariner may be provided with characteristics which allow them to be distinguished clearly from floating marks.</p> <p><i>Article 27.—Fixed Lights.</i></p> <p>The use of fixed lights on marks should be avoided wherever practicable, except in the case of wreck-marking vessels, where the lights should conform with the provisions of Article 24.</p> <p><i>Article 28. — Harbour Lights.</i></p> <p>In the case of lights placed on permanent works at the entrance of harbours, whose principal purpose is to mark the sides of a channel, the colour and rhythm should, as far as possible, be in accordance with the provisions of Article 10.</p> <p><i>Article 29.—Coloured Sector Lights and Leading Lights.</i></p> <p>Where practicable, coloured sector lights shall be in accordance with the provisions of Article 10. Where this is not considered practicable, the colours should preferably be allocated in accordance with a definite rule laid down for a particular region, in order that the sectors may be arranged in the same manner when the conditions of their employment are similar.</p> <p>Where a leading light or lights might be mistaken for a light or lights forming a part of the lateral system, the colour shall be in accordance with the provisions of Article 10.</p> <p><i>Article 30.—Fixed Supports for Lights.</i></p> <p align="center">.</p> | <p>Omit the second sentence of the first paragraph and insert the following new paragraph :</p> <p>“ Bell buoys and whistle buoys have, if practicable, the characteristics appropriate to their position in accordance with the foregoing Rules. ”</p> <p>Insert the word “ floating ” between the words “ on ” and “ marks ”.</p> <p>After the words “ a channel ” substitute the following words for the remainder of the article :</p> <p>“ Into the harbour, the general obligation to adopt the characteristics of colour and rhythm which would be in accordance with the provisions of Article 10 need not be considered binding, if, in the opinion of the responsible authority, local conditions render other characteristics of colour and rhythm more desirable. ”</p> <p>Substitute the following for the first paragraph :</p> <p>“ When coloured sectors are used in lights forming part of the lateral system of buoyage, it is desirable, when circumstances permit, that their colours should be in accordance with Article 10. In cases where this is not considered practicable, the colours should preferably be allocated in accordance with a definite rule laid down for a particular region, in order that the sectors may be arranged in the same manner when the circumstances are identical. ”</p> <p align="center">.</p> | <p align="center">Nil.</p> <p>In view of the terms of Article 1, the proposed amendment is necessary in order to make it clear that Article 27 is not intended to apply to fixed lights on shore or on works, such as piers.</p> <p>It is thought that difficulties would arise in the practical interpretation of this article as it appears in column (1). In its amended form in column (2), the general scope of the article remains unaltered and it is made clear that a channel leading into the harbour and not a channel running past the entrance is referred to.</p> <p>The article in column (2) is Article 24 of the British proposals of November 1931. It is considered to be clearer and easier of interpretation than the article drafted by the London Committee.</p> <p align="center">.</p> |
| <p align="center">.</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |

| Rule drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|---|---|
| <p><i>Article 31.—Topmarks.</i></p> <p>When a mark or its superstructure, having regard to its position in the system, does not conform to the characteristic shape laid down in the foregoing rules, it shall, as far as possible, be furnished with the appropriate characteristic topmark. Alternatively, an additional mark bearing the appropriate topmark may be used.</p> <p>Topmarks are generally painted with the darkest of the characteristic colours used for the corresponding mark, except in the case of an isolated danger mark. This provision is not obligatory when buoys are employed as topmarks.</p> <p>For purposes of differentiation where there are numerous neighbouring marks, additional topmarks of the same shape may be used on the same mark. The lower cone may be duplicated in the case of topmarks used in the eastern and western quadrants of the cardinal system.</p> | <p>Insert the words "owing to damage or other exceptional circumstances" after the word "When" at the commencement of the article.</p> <p>Substitute the words "pending repair or replacement" for the words "as far as possible" in the first paragraph.</p> <p>Substitute the following for the first sentence of the second paragraph :</p> <p>"Where not otherwise stated in the foregoing Rules, topmarks are painted with the darker of the colours used for the body of the mark."</p> <p>The whole article should come after Article 26, and before Articles 27, 28, 29 and 30.</p> | <p>It is desirable to indicate that, except as provided by Article 2 of the draft agreement, departures from the Rules relating to shape may only be made in quite exceptional cases or in circumstances of temporary difficulty and that the article does not authorise any general use of topmarks as substitutes for the appropriate shape of the body or superstructure of buoys.</p> <p>The form of the Rule regarding the painting of topmarks has been slightly amended.</p> |

MEMORANDUM ON THE DRAFT AGREEMENT RELATIVE TO THE UNIFICATION OF BUOYAGE RULES DRAWN UP BY THE PREPARATORY COMMITTEE.¹

| Agreement as drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|---|---|--|
| <p>DRAFT AGREEMENT RELATIVE TO THE UNIFICATION OF BUOYAGE RULES.</p> <p>The contracting Governments, represented by the undersigned, having decided to unify certain rules relative to buoyage, have agreed on the following provisions :</p> <p><i>Article I.</i></p> <p>In all cases in which the competent authorities in the territories of the contracting Governments communicate to navigators the information or warnings dealt with in the annexed rules, each of those Governments undertakes that only measures in conformity with the provisions of the said rules will be taken by such authorities for the particular purposes in question. The necessary measures to that effect shall be taken before the expiry of a period of ten years from the entry into force of the present Agreement.</p> <p>Every contracting Government that has completed the application of the aforesaid measures in its territory shall notify the Secretary-General of the League of Nations to that effect; a copy of such notification shall be forwarded by the Secretary-General to the other contracting Governments.</p> <p>Each contracting Government shall do everything practicable, due regard being had more especially to the funds at its disposal, to reduce the length of the transitional period between the initiation and completion of the application of the aforesaid measures in its territory.</p> | <p>For the words "communicate to navigators the information or warnings dealt with in the annexed rules", substitute the words "maintain for the benefit of navigators marks or other signals for the purposes mentioned in the annexed rules".</p> <p>Add the following words at the end of the first paragraph : "as regards the territory concerned in accordance with Article 5 or 7 or 9, as the case may be".</p> | <p>The words which it is proposed to alter appear to be based on a similar article in the Agreement concerning Maritime Signals, signed at Lisbon in 1930, but are not appropriate in the present instance.</p> <p>Acceding Governments should be allowed the same period of time as the original signatories (<i>i.e.</i>, a maximum of ten years) to give effect to the Rules.</p> |

¹ Document C.465.M.238.1933.VIII.

| Agreement as drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|---|--|---|
| <p align="center"><i>Article 2.</i></p> <p>Departures from the provisions of the annexed rules shall only be permitted in virtue of local conditions or exceptional circumstances, and particularly where the adoption of the rules in question might endanger navigation or where the expenditure involved might be out of proportion to the frequency of the traffic.</p> <p>Such departures from the rules should, nevertheless, be as limited as the situation allows, and proper notice of them should be given to mariners. As far as possible, they should not be such as to lead to confusion with the other provisions of the present rules.</p> | <p>For the words " or where the expenditure involved might be out of proportion to the frequency of the traffic " at the end of the first paragraph, substitute the words " or where the expenditure involved would be out of proportion to the nature and amount of the traffic ".</p> | <p>It is felt that the frequency of the traffic is not a satisfactory standard by which to measure marking requirements.</p> |
| <p align="center"><i>Article 3.</i></p> <p>The present Agreement should not be regarded as in any way modifying the legal situation in the different countries with reference to the relations between the public and the authorities in charge of buoyage.</p> | <p>Add the words " and lighting " at the end of the article.</p> | <p>This addition is desirable, especially in view of the provisions of Articles 28 and 29 of the Buoyage Rules.</p> |
| <p align="center"><i>Article 4.</i></p> <p>.....</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |
| <p align="center"><i>Article 5.</i></p> <p>Governments may accept the present Agreement by signature only, when the latter is not made subject to ratification, or by ratification or accession. The instruments of ratification shall be transmitted to the Secretary-General of the League of Nations, who will notify all the Governments concerned of their receipt.</p> <p>The Agreement shall enter into force on the ninetieth day following its acceptance by five Governments.</p> | <p>For the words " five Governments ", at the end of the article, substitute the words " ten Governments ".</p> | <p>By increasing the number as suggested, a definite measure of success towards the attainment of uniformity will be assured before any buoyage or lighting authority is required to incur expenditure.</p> |
| <p align="center"><i>Article 6.</i></p> <p>.....</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |
| <p align="center"><i>Article 7.</i></p> <p>After the coming into force of the Agreement in accordance with Article 5, each subsequent signature, ratification or accession shall take effect on the ninetieth day from the date of signature, or of the receipt by the Secretary-General of the League of Nations of the instruments of ratification or of the notification of accession.</p> | <p>For the words " After the coming into force of the Agreement in accordance with Article 5, each subsequent signature, ratification ", etc., substitute the following : " When the Agreement has been accepted by five (or ten) Governments as required by Article 5, each subsequent signature (if not subject to ratification), ratification ", etc.</p> | <p>This amendment seems desirable in order to cover the possibility of a State signing or ratifying during the ninety days between acceptance by the fifth Government (or tenth, if the proposed amendment to Article 5 is accepted) and the entry into force of the Agreement.</p> |
| <p align="center"><i>Article 8.</i></p> <p>.....</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |
| <p align="center"><i>Article 9.</i></p> <p>Any contracting Government may, at the time of signature, ratification or accession, declare that, in accepting the present Agreement, it does not assume any obligation in respect of all or any of its colonies, protectorates, oversea territories, or territories under suzerainty or mandate ; and the present Agreement shall not apply to any territories named in such declaration.</p> | | |

| Agreement as drafted by London Preparatory Committee, July 1933 (1) | Proposed amendment (2) | Remarks (3) |
|--|---|---|
| <p>Any contracting Government may give notice to the Secretary-General of the League of Nations, at any time subsequently, that it desires that the Agreement shall apply to all or any of the territories which have been made the subject of a declaration under the preceding paragraph, and the Agreement shall apply to all the territories named in such notice ninety days after its receipt by the Secretary-General of the League of Nations.</p> <p>Any contracting Government may declare, either after a period of fifteen years from the date of the notification provided for in the preceding paragraph or at the time of the denunciation provided for in Article 8, that it desires that the present Agreement shall cease to apply to all or any of its colonies, protectorates, or territories under the suzerainty or mandate, and the Agreement shall cease to apply to the territories named in such declaration one year after its receipt by the Secretary-General of the League of Nations. In default of such a declaration, the denunciation of the Convention under Article 8 will not affect the application of the Convention to any territories referred to in the present article.</p> | <p>For the words "either after a period of fifteen years from the date of the notification provided for in the preceding paragraph", substitute the following words: "either after a period of five years from the date of notification of effect having been given to the Rules in the territories named".</p> | <p>Presumably the period of fifteen years mentioned in this paragraph was intended to comprise (a) the maximum period of ten years for giving effect to the Rules and (b) the period of five years for which the Rules must be in force before notice of denunciation is given. As, however, (a) is not a fixed but a maximum period, the position will be clarified by the proposed amendment.</p> |
| <p align="center"><i>Article IO.</i></p> <p>.....</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |
| <p align="center"><i>Article II.</i></p> <p>.....</p> | <p align="center">Nil.</p> | <p align="center">Nil.</p> |
| | <p>It is suggested that the following additional articles should be inserted after Article 8 :</p> <p>"(a) <i>Inventions, etc.</i></p> <p>"Nothing in this Agreement shall debar any contracting Government from demanding at any time the revision of the annexed Rules on the ground of technical development in the nature or characteristics of marks, lights or sound signals, the full benefit of which could not be given to shipping under these Rules."</p> <p>"(b) <i>Procedure for revision of Agreements.</i></p> <p>"Any demand for a revision of this Agreement shall be communicated in writing by the interested contracting Government or Governments to the Secretary-General of the League of Nations, who shall take the necessary steps to give effect to the demand."</p> | <p>Whilst experiments could presumably be carried out under Article 2 of the Agreement, it is considered that definite provision should be made in order to secure that new developments or inventions which have been proved to be satisfactory can be brought into operation without undue delay. Under Article 8, revision of the Agreement can be demanded by (a) any contracting Government after the Agreement has been in force for fifteen years, and (b) by one-fourth of the contracting Governments at any time. It is considered undesirable that the benefit of new inventions, etc., should possibly be withheld for so long a period as that prescribed under (a) and, as regards (b), that, owing to the number of Governments likely to be concerned, there may in practice be difficulties and delays in securing the support of one-fourth of the contracting Governments for a demand for revision based solely on technical grounds.</p> <p>It seems desirable that the Agreement should specify the procedure to be followed on a demand being made for its revision, either under the article suggested above, regarding inventions, or under Article 8.</p> |

Bulgaria.

In a letter dated June 18th, 1934, the Bulgarian Government stated that the competent authority, after a careful study of the Preparatory Committee's report, had expressed the opinion that Bulgaria could conclude an agreement on the subject in accordance with the system proposed by the United Kingdom.

Canada.

In a letter dated October 9th, 1934, the Canadian Government made the following statement :

The proposals of the Preparatory Committee have received the careful and sympathetic study of the competent authorities of the Canadian Government. Their views on the general question of the unification of buoyage were expressed by their representative at the Lisbon Conference in 1930 (see document C.163.M.58.1931.VIII). They believe that the international unification of systems of lateral buoyage is in itself desirable, but—while attaching no importance to the attribution of particular shapes, colours and numbers to one side or other of the channel—they feel that, in seeking uniformity of practice, appropriate consideration should be given to the fact that the vast majority of lateral buoyage stations in the world is arranged in accordance with the recommendations of the Washington Conference of 1889. To these recommendations, the Canadian Government, in company with most Governments of the Commonwealth and of the world, have in practice conformed, and they are unwilling to reverse, at inevitable cost and confusion, a system which has been followed to the general satisfaction for some forty-five years.

As regards the other recommendations of the Preparatory Committee, the competent authorities of the Canadian Government submit the following observations :

(a) *Buoy Lights*.—It is not thought that the multiple flash characteristics proposed by the Preparatory Committee are either necessary or practicable. When several buoys are in sight at one time, it is not always possible to identify them by counted flashes, especially when there is any sea running. The increased number of spare lanterns that would have to be provided and carried aboard buoy vessels, were this recommendation adopted, is a further disadvantage which the proposed change would involve.

(b) *Spherical Buoys*.—The experience of the Canadian Lighthouse Service has not indicated any demand or necessity for their installation. The shape has the disadvantage of being expensive to construct, and, moreover, each additional authorised shape increases the number of spare or relief buoys which must be provided.

(c) *Topmarks* are neither necessary nor reliable, particularly when subject to ice conditions or the risk of being fouled by vessels.

(d) *Wreck-marking* proposals are thought to be unnecessarily complicated and liable to lead to confusion and disaster. The navigating officer who misses a flash in his count is likely to fetch up on the wreck he seeks to avoid.

Chile.

In a letter dated August 28th, 1934, the Chilean Government stated that the buoyage of maritime routes was governed by Supreme Decree No. 1320, dated June 11th, 1929, and that the experiment had had favourable results, since both Chilean and foreign ships which had sailed and were sailing in Chilean waters had offered no objection to the system in force.

After a careful study of the draft rules by the competent services, the Chilean Government had thought it desirable to submit the following observations :

(a) The painting of buoys and beacons red to starboard and black to port in Chile was consecrated by half a century's tradition. The proposed rules, on the other hand, diametrically changed this system by fixing red to port and black to starboard, so that, if Chile acceded to the draft international agreement, she would have to make a fundamental change in the colours of the buoys and beacons on channels and rivers. Not only would this change, from the material point of view, involve considerable expense, but what was more important, it would require a complete change in the usages of Chilean naval and merchant seamen, who would have to pilot their vessels through the channels according to an entirely new system with a consequent risk of accidents.

This reversion of colours is the only important and substantial difference between the system of buoyage in force in Chile and that recommended by the proposed rules.

(b) In view of the configuration of the coasts and channels of Chile, it was considered that the lateral system should be exclusively used in that country ; the cardinal system might be adopted for isolated cases where a number of dangers existed on both shores.

(c) As regards the provisions of Article 6 of the Annex, it was essential for Chile to establish precise rules clearly defining which were the port and which the starboard sides of such straits and channels, as some lay in an east-westerly and others in a north-southerly direction. The rules at present in force were short and offered only limited possibilities.

The Chilean buoyage rules are reproduced below. The notes appended were embodied in log-books and navigation books and served to define these rules.

(d) The other provisions contained in the proposed rules would undoubtedly, in the Chilean Government's opinion, form a valuable addition to the system of buoyage on land and sea, and were therefore calculated to render navigation less dangerous. Some of them are excellent and quite novel, and their only drawback is that they would increase the number of conventional signs and consequently add slightly to the work of navigators.

To sum up, the Chilean Government had no objection to make to the proposed rules other than that appearing under (a)—*i.e.*, with regard to the change in the colour of buoys and beacons.

Appendix.

REGULATIONS REGARDING THE SHAPE AND COLOURS OF BUOYS AND BEACONS IN CHILE.

(Supreme Decree No. 1320, of 1929.)

Starboard-hand buoys (conical) shall be painted red with two white horizontal bands, the first band being placed at one-third of the height of the buoy measured from the water-line to the tip of the cone, the second buoy at two-thirds of the height. Conical topmark painted red.

They shall be surmounted by a conical topmark painted red.
The name or number of the buoy shall be painted in white on the red part above the first white band (see Fig. 1 on the following page).

Port-hand buoys (cylindrical) shall be painted black with two white bands similar to the bands on the starboard-hand buoys. Cylindrical topmark painted black.

They shall be surmounted by a cylindrical topmark painted black.
The name or number of the buoy shall be painted in white on the black part above the first white band (see Fig. 2).

Mid-channel buoys (spherical) shall be painted white with black vertical bands. There shall be five bands equidistant from each other. White spherical topmark.

They shall be surmounted by a spherical topmark painted white.
The name or number of the buoy shall be painted in white on the black ground (see Fig. 3).

Starboard-hand beacons shall be pyramidal in shape, painted red with three white horizontal bands equidistant from each other. Beacons on land shall measure 6 metres in height by 2 metres at the base (see Fig. 4). Beacons on the water shall measure 4 metres in height by 1.60 metre at mean spring-tide high-water level (see Fig. 5). The bands on these beacons shall be equidistant from each other above this high-water level.

They shall be surmounted by a conical topmark painted red.
The name or number of the beacon shall be painted in white on the red part above the first white band.

Port-hand beacons shall be cylindrical in shape, painted black with three white horizontal bands equidistant from each other. Beacons on land shall measure 6 metres in height by 2 metres at the base (see Fig. 6). Beacons on the water shall measure 4 metres in height by 1.60 metre at mean spring-tide high-water level (see Fig. 7). The bands on these beacons shall be equidistant from each other above this high-water level.

They shall be surmounted by a cylindrical topmark painted black.
The name or number of the beacon shall be painted in white on the black part above the first white band.

Mid-channel beacons.—The body of the beacon shall be cylindrical in shape and the top shall be hemispherical. The beacon shall be painted black with white vertical stripes equidistant from each other. Beacons on land shall measure 6 metres in height by 2 metres at the base (see Fig. 8). Beacons on the water shall measure 4 metres in height by 1.60 metre at mean spring-tide high-water level (see Fig. 9).

They shall be surmounted by a spherical topmark painted white.
The name or number of the beacon shall be painted in white on the top part and on the black ground.

Note.—When beacons are situated inside harbours or creeks where the maximum visibility required is less than half a mile, the dimensions of the beacons will be reduced to one-half the regulation size—*i.e.*, 3 metres in height for beacons on land and 2 metres above mean high-water level for beacons on the water.

Observations.

The term "enter" in the case of a channel with two entrances must be taken to mean following the direction of the flood or rising tide.

As, in the case of southern channels, this would necessitate frequent changes in the shape of the marks, the following rule has been adopted:

In the Strait of Magellan and the Patagonian channels the words "port" and "starboard" apply to vessels coming from the Atlantic or proceeding northward.

Consequently, the port marks will lie to the south in the Strait and to the west in the channels, and the starboard marks to the north and east respectively.

This refers solely to the main channel, following the course or track. The secondary channels will be buoyed in accordance with the general rule.

In the Beagle Channel, from Moat Bay to the Cockburn Channel, the same rule will be followed as in the Strait.

The shape of the mark is of greater importance than its colour.

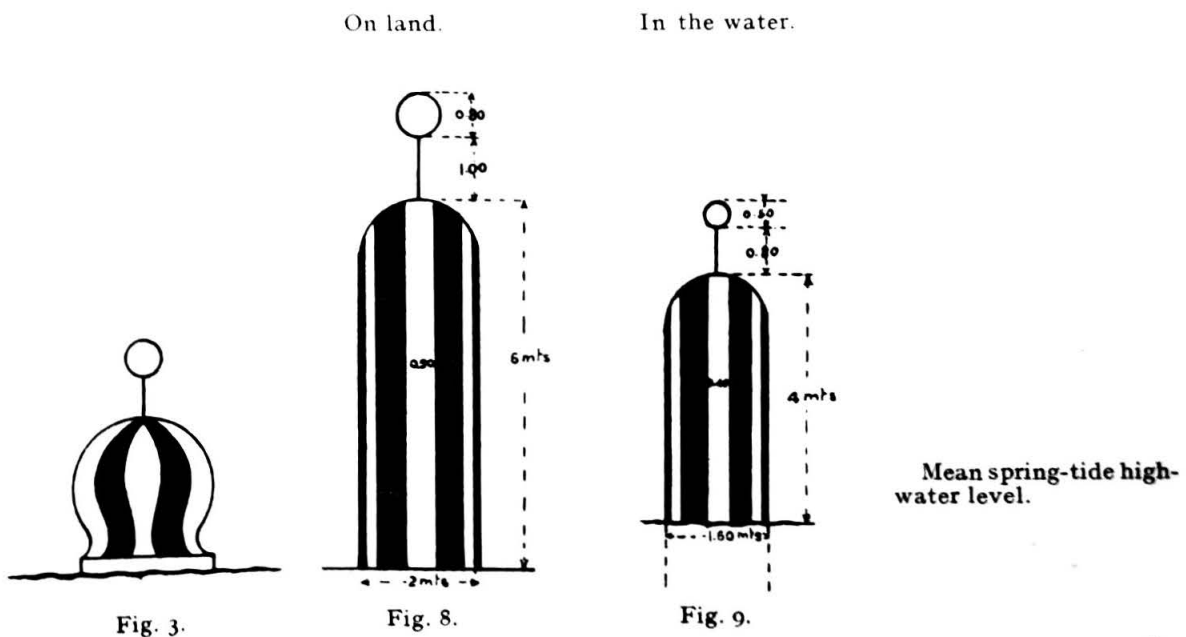
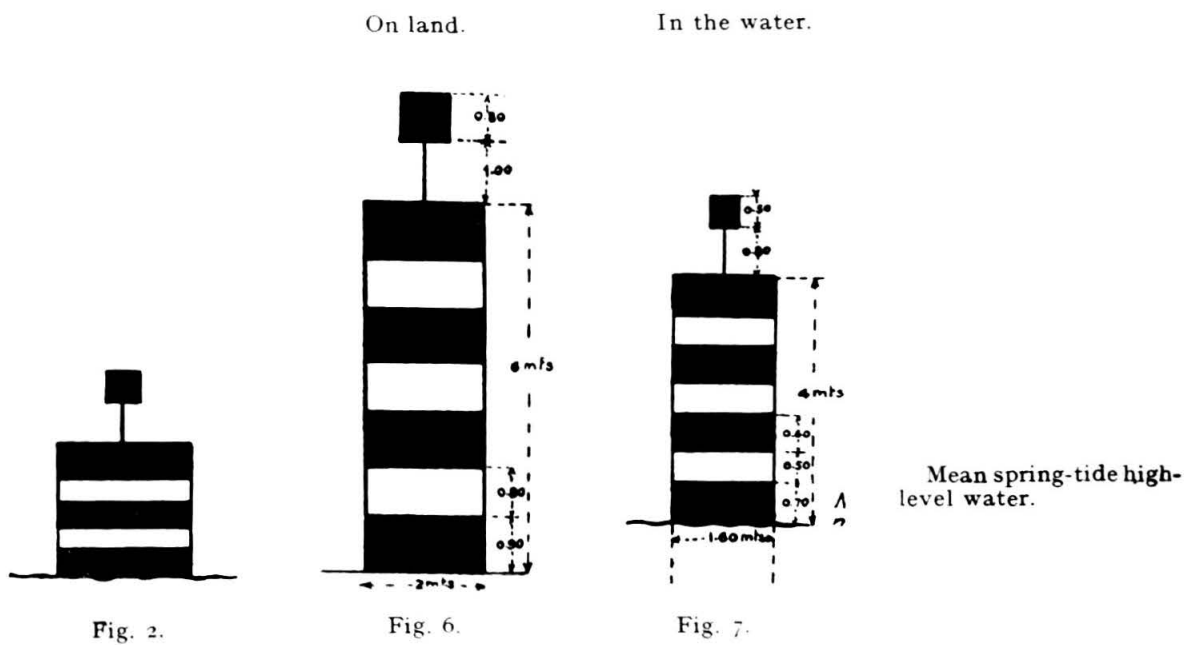
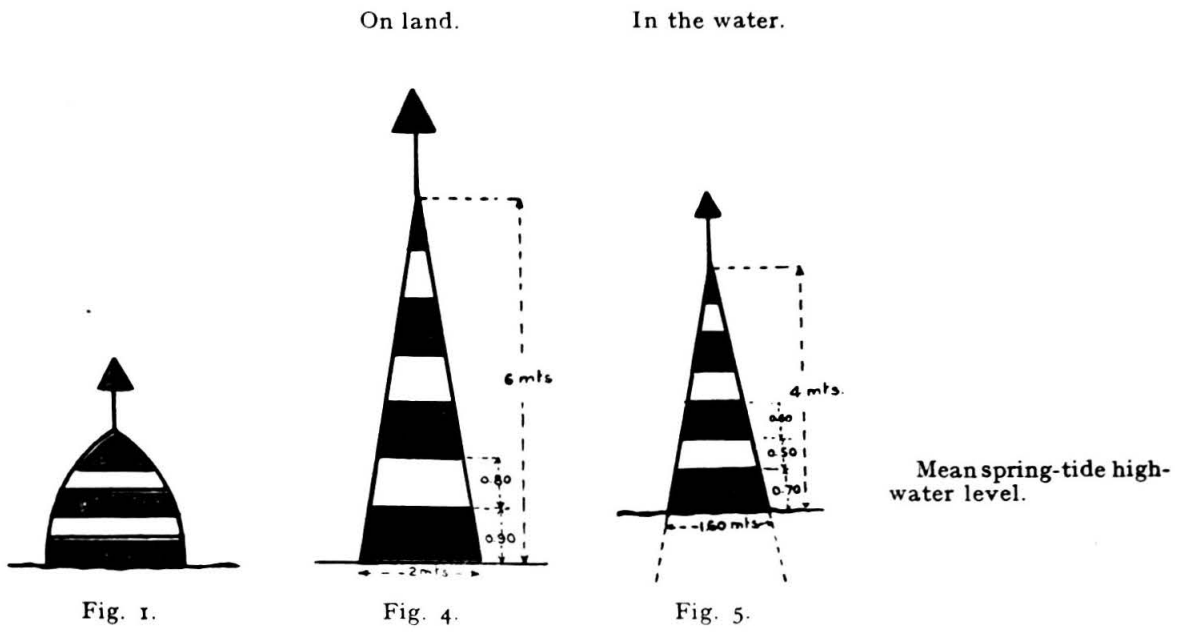
In the case of beacons, the colour may vary according to the background or land against which it has to stand out.

The shape of the topmark is more authentic than that of the buoy or beacon supporting it, and the former may occasionally differ from the regulation shape.

China.

In a letter dated October 5th, 1934, the Chinese Government states that it is prepared to conclude an agreement for the unification of buoyage based on the draft Agreement and Rules drawn up by the Preparatory Committee, provided that the Governments of the principal countries concerned will also adopt them.

Buoys and Beacons in use as prescribed in the Chilian Buoyage Rules.



Denmark.

In a letter dated June 23rd, 1934, the Danish Government stated the following :

In principle, the Ministry of Marine sees no reason to change the present Danish system of buoyage, which it considers suitable and particularly well adapted to Danish conditions, or indeed to adopt a uniform system.

The cost involved by the introduction of a uniform system of buoyage would hardly be proportionate to the practical advantages offered by such a system.

The present system has not caused any difficulty to navigation, but it is to be anticipated that the period of transition would expose it to very great inconveniences.

A uniform system on buoyage would in most cases be inferior to the systems of the different States, which are adapted to the special conditions (geographical, climatic, etc.) of each country.

Notwithstanding the foregoing considerations, Denmark will probably not refuse to adopt the existing scheme for a buoyage system, on condition that it is accepted as it now stands by other States—including the adjacent States of the North Sea and Baltic—in sufficient numbers for it to be really considered a European buoyage system.

Free City of Danzig.

In a letter dated May 1st, 1935, the Polish delegation accredited to the League of Nations stated that the Free City of Danzig had no objection to the proposed unification.

Egypt.

In a letter dated September 27th, 1934, the Egyptian Government stated that the competent departments had no objection to the provisions laid down in the draft Agreement and Rules, and that it would be disposed, should occasion arise, to conclude an agreement on the unification of buoyage on the basis of the draft in question.

Spain.

In a letter dated March 28th, 1935, the Spanish Government communicated the following observations on the draft Agreement and Rules together with an explanatory note :

OBSERVATIONS OF THE PERMANENT SPANISH LIGHTHOUSES COMMISSION REGARDING THE DRAFT RULES CONCERNING A UNIFORM SYSTEM OF BUOYAGE.¹

[*Translation from Spanish.*]

CHAPTER I. — GENERAL.

Same system. No observations.

CHAPTER II.—LATERAL SYSTEM.

Article 6.—Position of Marks.

Same system.

Article 7.—Shapes of Topmarks.

Same system.

Article 8.—Marking of Sides of Channels.

Marks on the two sides of the channel are characterised as follows :

(a) *Starboard-hand marks :*

Shape or type : Cone, spindle or spar.

Topmark : A cone point upwards for ordinary buoys and *diamond-shaped* for buoys indicating "take care" for a specific reason.

Colour : Black, both buoys and topmarks.

(b) *Port-hand marks :*

Shape or type : Can, spindle or spar.

Topmark : Can for ordinary buoys and T-shaped for buoys indicating "take care" for a specific reason.

Colour : Red, both for buoys and topmarks.

(Omit N. B.)

Article 9.—Numbering or Lettering.

Same system.

Article 10.—Lighted Marks.

Lights of marks on the two sides of the channel are differentiated by colour or by rhythm, where preferred, or by a combination of both colour and rhythm—viz :

- | | |
|--|--|
| (a) <i>Starboard-hand lights</i> : Green | } Slow rhythm flashes (less than thirty a minute). |
| (b) <i>Port-hand lights</i> : Red | |

¹ See also explanatory notes following the observations.

(c) *Buoys meaning "take care" :*

Starboard-hand buoys : Green } Rapid rhythm flashes (more than sixty a minute).
Port-hand buoys : Red

(d) *Spherical bifurcation buoys :*

Showing the main channel to the right: A white light and a red light set vertically in the order given.
Junction buoy : Same lights in inverted positions—*i.e.*, red above white.

Showing the main channel to the left : A white light and a green light set vertically in the order given.
Junction buoy : Lights in inverted positions—*i.e.*, a green light above a white light.

Indicating channels of equal importance : Two vertical lights, one green and the other red, set in the order given. Junction buoy : Lights in inverted position—*i.e.*, a red light above a green light.

(e) *Buoys indicating the proximity of a secondary channel :*

Channel to the right, the buoy being to port : Two red lights set vertically.
Channel to the left, buoy being to starboard : Two green lights set vertically.

(f) *Lighted mid-channel marks indicating the deepest part of a deep-water channel or fairway :*

Two white lights set vertically.

(g) *Characteristics of the lights :*

All these lights must show flashes. Lights belonging to the same channel must all show the same number of flashes ; if there are different channels, a specific number of flashes is allotted to each channel according to the following rules :

All the lights of the main channel shall show two flashes ; the lights of secondary channels to the right of the main channel shall show four flashes for the first channel, one for the second and three for the third ; the lights of secondary channels to the left of the main channel shall similarly show four, one and three flashes respectively. This system of lighting, therefore, can be applied to seven channels in all, buoyed according to a uniform and perfectly clear system.

Article 11.—Bifurcation or Junction Marks.

Marks at the ends of middle grounds have the following characteristics :

Shape or type : Spherical, spindle or spar.

Colour : For buoys, vertical white and red bands, if the main channel is to the right ; horizontal black and white bands when the main channel is to the left, and horizontal black and red bands when the channels are of equal importance.

Topmarks (compulsory) :

(a) *Main channel to the right :*

Outer end : A can buoy } Painted red
Inner end : A " T " }

(b) *Main channel to the left :*

Outer end : A cone point upwards } Painted black
Inner end : A diamond }

(c) *Channels of equal importance :*

Outer end : A sphere
Inner end : A St. George's cross, painted red.

(d) *To indicate the entrance to a secondary channel, whether leading from the sea or from a main channel, the indicating buoys have the following shapes and characteristics :*

Can buoy, black and red check pattern, meaning that it must be left to port and that the secondary channel is in the immediate neighbourhood ; conical buoy, black and white check pattern, meaning that it must be left to starboard and that the secondary channel is in the immediate neighbourhood.

(Omit N. N.)

Lighted Marks.—The rules shall be based on those given in Article 10, paragraphs (d), (e), (f) and (g).

Article 12.—Mid-channel Marks.

Same system. No observations.

CHAPTER III.—CARDINAL SYSTEM.

Same system, subject to the observations submitted at the end of this report, in the third explanatory note.

CHAPTER IV.—MARKS COMMON TO BOTH SYSTEMS AND OTHER MARKS.

Article 17.—Isolated Danger Marks.

Our system is the same as that outlined in the draft, except as regards the following points :

Colour : Vertical black and red bands ;

Topmarks : Two topmarks set vertically, one spherical painted black, the other a St. George's cross, painted red ;

Light : White, quick flashing (more than sixty flashes a minute).

Article 18.—Landfall Marks.

Same system. No observation.

Article 19.—Transition Marks.

Buoys indicating the transition between the cardinal and lateral systems are painted with red and white spiral bands, in which case they must carry a fixed red light, or with black and white spiral bands, in which case they should carry a green fixed light.

Articles 20 and 21.

Same system. No observation.

CHAPTER V.—MARKING OF WRECKS.

Article 22.—General Observations.

Same system. No observation.

Characteristics in the Lateral System.

Article 23.—Wreck-marking Buoys.

Colour : Green.

(a) If to be passed on the *starboard hand* :

Type : Conical, spindle or spar.

Topmark : Conical.

Light : Green, quick rhythm (more than sixty flashes a minute).

(b) If to be passed on the *port hand* :

Type : Can, spindle or spar.

Topmark : Can.

Light : Red, quick flashing (over sixty flashes a minute).

If the body of the mark does not conform to the characteristic shape, the predominant colour shall be green, and the buoy should be marked with a capital W in white.

(c) If to be passed on *either hand* :

The previous marks (a) and (b), one at each end of the wreck.

Article 24.—Wreck-marking Vessels.

They display green painted shapes :

(a) If to be passed on the mariner's *starboard hand*, three cones point upwards in a horizontal line ;

(b) If to be passed on the mariner's *port hand*, two cans set in a horizontal line ;

(c) If may be passed on *either hand*, four spheres disposed vertically by pairs.

As regards the rest of this article, same system as in the draft, except that the lights be white fixed lights.

Characteristics in the Cardinal System.

Article 25.—Wreck-marking Buoys.

Same system, except as regards the colour of the lights, white being regarded as preferable.

CHAPTER VI.—MISCELLANEOUS PROVISIONS.

Article 26, 27, 28 and 29.

Same system. No observation.

Article 30.—Fixed Support for Lights.

Fixed supports for lights forming part of the lateral system of buoyage shall be painted white, if the light is to be of a colour characterising its position in the previous system, or of the colour which characterises this latter. If the correct characteristic colour cannot be used, the opposite characteristic colour shall, wherever possible, be avoided.

Article 31.—Topmarks.

Same system. No observation.

EXPLANATORY NOTES.

1. The Commission accepts the number and form of buoys and topmarks as provided in Article 8, but considers that, for the purpose of differentiating by shape, conical, can and spar buoys, painted either entirely black or red according to the side of the channel marked would be sufficient. As topmarks are grouped in pairs for each buoy, the Commission feels that it would be desirable to make a clear differentiation. There would be no difficulty in adopting the solution indicated in our draft—namely, a can topmark on a red buoy and a triangular topmark on a black buoy for ordinary purposes ; the same buoys with T shaped or diamond shaped topmarks would normally not only mark the channel, like the others, but would further mean "take care" (so as to warn navigators when approaching these buoys). By this system, if the port and starboard buoys are numbered consecutively, channels or fairways would, in our opinion, be sufficiently clearly and definitely marked without there being any need to employ broom-shape topmarks or red and yellow chequered buoys. The use of such would, we think, even have certain disadvantages. We would suggest that white and black, or white and red chequered buoys

should be reserved to indicate the proximity of a secondary channel, but the Commission thinks that this mark should not be reserved solely to indicate entry into a secondary channel opening out from a main channel, as is laid down in the last paragraph of Article 8. This buoy might also be used to enable a vessel coming from the sea to enter a secondary channel, in which case, the white and red chequer would show the mariner that, if he passes the buoy to port, he will be near a channel of this kind; the same would apply to a white and black chequered buoy.

As regards bifurcation or junction marks, we agree to the same forms of buoys and topmarks and their respective meanings, and only detect confusion in the use of the same colours—white and red bands—as suggested in Article 11, paragraphs (a) and (c), for different cases. The Commission does not think that the difference between the topmarks is sufficient to obviate confusion, which the same colour on buoys of the same form might create. The Commission is therefore of opinion that this disadvantage could easily be remedied, and suggests for this purpose that spherical buoys indicating a bifurcation in channels of equal importance should be painted with black and red bands, colours which clearly indicate that the vessel may steer to port or to starboard, the channel being equally good on either side.

2. *Lighted Marks.*—Besides the explanation given in our report concerning the number of flashes desirable for the lights in each channel and the variation in the number of these flashes for different channels, the Commission considers it advisable, from the standpoint of mariners' requirements, that the colours of light buoys marking channels should be red to port and green to starboard. It does not think that the lights of secondary buoys should be white, as it is not in favour of marking dangerous spots at sea, such as shipwrecks, with a green light which, owing both to its colour and intensity, is of very low visibility on the surface of the sea, where we think it is absolutely necessary to adopt white. White, by its visibility, intensity and glare, is the colour most likely to be seen at a distance by navigators and consequently is best suited for marking dangerous spots. On the other hand, the Commission considers that white flashing lights on luminous buoys marking channels can easily, even though of low power, be mistaken for other white lights on motor-boats, jetties, etc.; again, they might prove to be dazzling if of any considerable strength. White is, in short, within port areas a colour that does not stand out clearly and might lead to unfortunate mistakes. On the other hand, the Committee considers—and this is the reason for its proposal—that for steering a course within a port area—an operation usually carried out with the utmost care—a green is the most appropriate colour in view of its very definite characteristics, its perfectly clear meaning (that is it to be passed on the starboard hand) and its power, which is sufficient for this kind of navigation, does not dazzle or cause the slightest confusion in the mind of the navigator.

3. *Cardinal System.*—We entirely accept the cardinal system set out in Chapter III (Articles 13, 14, 15 and 16), although in Article 16, in describing the form of the topmarks to be allocated to each quadrant, there seems to be an implication that the topmark adopted for each is common to both forms—conical or spar in the first quadrant, can or spar in the second, etc.

As, however, the diagram appears to show that only the spars have topmarks, and although the diagram is included merely as an illustration, we think it should be made quite clear that in signals specially reserved for navigation at sea—signals which should therefore have the greatest possible visibility—all buoys should have their corresponding topmarks.

Lighting.—Though accepting the system proposed, we think it might perhaps be improved by stipulating that both day and night the same colours should go together, and be so arranged that if, for instance, the coastline follows a S.W.-N.E. direction, these colours shall indicate to the navigator: white, that he is on the seaward side of the danger; red, that he is on the landward side of the danger. In other terms, it might be more advisable to set the colours cardinal-wise, but in such a way that they are the same by pairs according to the parallels which unite them at various distances from the land.

4. The Committee does not understand either the necessity or the reason for the proposal concerning landfall marks in Article 18. It feels that, if this mark were to be adopted, very careful enquiries would be necessary to determine the circumstances and conditions in which its use would be necessary. For instance, is it to be employed solely for marking seaplanes in port areas or should it also be used, as proposed in Article 18, to indicate the proximity of a river estuary or of a port? In this latter case, surely the indications given by other lights from lighthouses, etc., should be sufficient. In any case, it would be desirable to state when landfall marks should be lighted or not.

5. *Marks Common to Both Systems.*—This Commission approves the spherical form for isolated danger marks as proposed in Article 17 of the draft Rules. It also approves black and red as the colours for these marks, these colours concurring with the rules adopted generally for all kinds of obstacles giving rise to or involving a bifurcation; in order, however, to differentiate clearly between the bifurcation mark indicating two channels of equal importance and the isolated danger mark, we think that the bands for the latter mark should be vertical and, in accordance with the explanations already given concerning the principle on which our modest proposals for lighting are based, that the light (which is not specified in the draft) should be white and quick flashing (more than sixty flashes a minute).

6. This Commission considers that the marks for wrecks indicated in Chapter V are quite clear and definite. The provisions of Articles 22 and 23 only differ from the provisions in force in our country as regards the colour of the light—white instead of green—for the reasons indicated in the second observation.

With regard to Article 24, the Commission feels that the proposed system might lead to confusion if the distinctive marks—namely, cones or cans for vessels to pass on the port or starboardhand respectively—happen by accident to be missing. The Commission therefore proposes that, without modifying the number uniform marks should be adopted—*i.e.*, all cans, all conical or all spherical.

7. To sum up all the modifications suggested and explanations given concerning each of the proposed changes, it may be noted that this Commission, having in view the interests of navigators and endeavouring to avoid any considerable cost as a result of the transformation of existing systems or the creation of marks of a type differing entirely from present types, proposes a system which, as a whole—in the form of the marks, colours, topmarks, colour and rhythm of flashes and all other essential characteristics of a buoyage system—is based on an endeavour to bring about unification by ensuring that identical forms, colours and flashes shall have everywhere the same signification, the number of these buoys being reduced to a minimum in order to achieve simplification in every direction.

Estonia.

In a letter dated October 22nd, 1934, the Estonian Government stated that the competent authorities, after carefully studying the subject, had pronounced in favour of the conclusion

of an agreement with other Governments on the basis of the Preparatory Committee's draft Agreement and Rules.

As regards the text of this draft, the Estonian authorities have no observations to submit.

Finland.

In a letter dated October 30th, 1934, the Finnish Government makes the following statement :

The Government is fully aware of the drawbacks created by the fact that, in spite of repeated attempts, it had not been possible to unify the buoyage of navigation routes by a general agreement between the countries concerned. In the Baltic alone, for instance, six different systems of buoyage are employed. Hence it is naturally most desirable that an agreement should be reached on the simplification of the present buoyage system, if only for Europe.

As regards the draft Rules for a uniform system of buoyage, the Government is in principle prepared to conclude with other Governments an agreement on the basis of this draft, although it will entail numerous changes in the system at present employed in Finland.

Nevertheless, as it is obvious that the *raison d'être* of the new system is to endeavour to achieve greater uniformity, Finland's participation would essentially depend on the accession of all the countries bordering on the Baltic, and also of Norway ; otherwise the only effect might be to add to the existing confusion in the confined space of the Baltic and on the European coast of the Arctic Ocean.

Lastly, as regards the details of the draft Agreement, Finland is particularly interested in buoyage according to the cardinal system, that system being at present employed on the Finnish maritime routes. Although the lateral system is employed in Finland only on what are regarded as inland navigation routes, Finland is nevertheless prepared to introduce the modifications proposed in the draft. The marking of wrecks by means of buoys arranged both according to the cardinal system and the lateral system also appears to the Finnish Government quite practicable, as also the proposed system of topmarks and lights.

France.

In a letter dated June 21st, 1934, the French Government stated that, without making it a *sine qua non* condition of acceptance of the Agreement, it would like the option to be allowed, in Chapter V, Article 22 (line 8), of the draft Agreement, of adding after the word "wreck" the equivalent word in the national language.

This amendment might be drafted as follows : *The word "wreck" followed, if deemed advisable, by the equivalent word in the national language, in white on both sides.*

Subject to this observation, the French Government considers that it would be particularly desirable to arrive as soon as possible at an agreement on the unification of buoyage on the basis of the draft Agreement and Rules prepared by the Committee.

Irish Free State.

In a letter dated July 25th, 1934, the Government of the Irish Free State informed the Secretary-General that it had no objection to offer to the adoption of the draft Rules for a uniform system of buoyage, and that it would be prepared, should the occasion arise, to conclude with other Governments an agreement based upon this draft.

Iceland.

In a letter dated September 29th, 1934, the Danish Government forwarded the following memorandum containing the Icelandic Government's observations on the Preparatory Committee's draft :

There are very few buoys in Iceland, and they are for the most part similar in colour and shape to the buoys used in Denmark. Presumably, in course of time, many new buoys will be established in Iceland, and no great difficulty is anticipated in following provisions on which international agreement can be attained. It is, however, of decisive importance to Iceland how far the countries with which she has extensive shipping connections will follow the proposed international rules. This refers, however, only to the so-called lateral system, but not the cardinal system, which can hardly find application in Iceland.

It would appear difficult, however, for Iceland to accede to Chapter VI, Articles 28 and 29 of the draft, for the following reasons :

The main rule followed both in Iceland and elsewhere in this connection is that ships entering a harbour must see a green light on their starboard hand and a red light on their port hand, and this is particularly necessary in the case of fixed lights which might be mistaken for ships' lights. This danger does not exist in the case of flashing lights, and in such cases there may be other conditions which have to be taken into consideration. On various occasions therefore, the main rule has been departed from—for instance, in the case of the Grimsey lighthouse in the Steingrim Fiord, where there is a red sector on the right side of the main navigable channel and a green sector on the left side, because shelving rocks and shallows extend much further on the right side of the channel than on the left side ; since a red light is much stronger and clearer than a green light, the value of the lights is substantially increased

by this arrangement. It is of course not essential, but is highly advisable. Similarly, there are many departures from the rule in respect of the Sydøstland lighthouse (situated on the south east coast), which has many sectors, most of which are narrow and some even very narrow. If the general rule were followed, every sector coloured would have to be divided into two, one red and one green, in order that the ship entering a white sector, and steering towards the lighthouse, would always have green and red light to the left. Even if this were frequently possible, it would be highly inadvisable. This provision must therefore be regarded as unacceptable. It would appear to be more advisable to arrange lights and buoys so as to have the greatest possible practical value than to make a hard-and-fast rule which may be advisable for certain places and even for many or most places, but which, under special conditions, may be inadvisable or even useless. If, however, the rule is such that it cannot be applied without exceptions, seamen have still to consult the charts and sailing directions of the navigable channel in order to identify every mark ; its value would accordingly appear to be substantially diminished.

Apart from the above objections to these two articles, the draft would appear on the whole to be acceptable from the Icelandic point of view.

Italy.

In a letter dated September 1st, 1934, the Italian Government stated that it would be prepared to participate in an agreement for the unification of buoyage on the basis of the draft Agreement and Rules drawn up by the Preparatory Committee.

Japan.

In a letter dated October 24th, 1934, Japan made the following statement :

[Translation.]

1. At the Lisbon Conference in 1930, there were two schools of thought with regard to the unification of the buoyage of coasts. One was supported by Japan, the United States of America, Mexico and various South-American countries, and the other by the United Kingdom and the different States of Europe. The two opinions proving impossible to reconcile, the Conference was unable to reach any agreement on the unification of buoyage.

2. Before the beginning of the work of the Preparatory Committee in London in 1933, the Japanese Government emphasised the fact that if the unification scheme submitted by the United Kingdom Government were adopted as a basis of discussion, the Committee would arrive at the same result as the Lisbon Conference, and it stressed the importance, in drafting the proposal to be used as a basis of discussion, of asking the opinion of all the Powers concerned.

3. Subsequently, in the course of the Preparatory Committee's work, in which the States of the first group, with the exception of Japan, took no part, the Japanese experts stated their Government's view ; but, that Government's opinion not having been accepted, the result achieved by that Committee only reflected, as could easily have been foreseen, the opinion of the United Kingdom and of the other European States,—*i.e.*, of the second group of States concerned.

4. Although the Preparatory Committee's draft contains certain points which the Japanese Government is prepared to accept, the draft rules are diametrically opposed to Japan's opinion. The Japanese Government considers that the London draft Rules should be revised before proceeding to the conclusion of an agreement based on this draft, and that due account should be taken of the principles adopted at the Genoa meeting of the Committee on Buoyage and the Lighting of Coasts in 1929, which served as a basis of discussion at the Lisbon Conference. These principles are, it will be remembered, in keeping with the systems in force in the majority of States since the Washington Conference of 1889.

Latvia.

In a letter dated July 30th, 1934, the Latvian Government stated that the competent authorities had pronounced in favour of the conclusion of an agreement on the basis of the Preparatory Committee's draft, and had added that they had no objection to make in that connection.

Lithuania.

In a letter dated September 25th, 1934, the Lithuanian Government stated that it had no observations to make on the Preparatory Committee's draft, and that it would be prepared, should occasion arise, to conclude an agreement with other Governments on the basis of that draft.

Monaco.

In a letter dated June 8th, 1934, the Government of Monaco stated that, in view of the trifling importance of buoyage in the waters of the Principality, it had no observation to make on the question of the unification of the buoyage of coasts.

Norway.

In a letter dated August 8th, 1934, the Norwegian Government made the following statement :

The draft Rules concerning a uniform system of buoyage as submitted by the experts after their meeting in London in July 1933 is more in conformity with the existing buoyage regulations in Norway than was any one of the previous drafts.

As regards the *marks without lights*, the proposed rules of the *lateral system* may, in all essentials, be deemed satisfactory from the Norwegian point of view, even if one, as far as some details are concerned, would have to avail oneself of the departure paragraph (Article 2) of the draft Agreement.

According to Article 6 of the draft Rules, the expression starboard-hand marks and port-hand marks refer either to the direction taken by the mariner when approaching a harbour or inlet from seaward, or to the main stream of flood tide. As far as Norway is concerned, the latter rule would have to be the decisive one, as there are often several inlets, having different directions, to a harbour.

In the proposed *cardinal system*, there are some quite essential differences from the Norwegian system, both as regards colours and, partially, also shape.

Types of marks as the Norwegian "*spars*" are in both systems accepted as equivalent to "buoys", and thereby a wish from the northern countries has been fulfilled.

Also, the rules for the colour and the character of the lights on *marks with lights in the lateral system* agree with the Norwegian point of view. However, such marks with lights are little used in Norway. The rules would principally apply to lighted buoys, whereof Norway has comparatively very few and, as a rule, very far between along the coast. On those few places in Norway where lighted buoys and fixed marks with lights may be said to belong to a lateral system, the colour of the lights is, as a rule, in conformity with the regulations of the draft.

On the other hand, in the *cardinal system*, the rules for the colour and character of the lights are such that they cannot be fitted into the combined lateral and cardinal system of Norway.

The most important objections from Norway must, however, be made against the rules of Article 29, which contains the rules for *coloured sector lights*. Norway's more than 1,600 lighthouse lamps would come under these regulations, and the arrangement of these lamps must be such as the complicated seaways of Norway necessitate. It is impossible to arrange the lamps according to Article 10, or according to any fixed rule given for a certain territory.

The rules for marks and lights for wrecks is of minor interest to Norway, as a ship grounded on the coast usually sinks in deep water unless it keeps on hanging on the sunken rock or the skerry. The only regulation in Norway hitherto has been : " A green spar is the mark for a wreck ". There is, however, nothing in the way of arranging these spars such as the draft prescribes. Lights or lightships destined for marking a wreck have not been used in Norway, and will hardly be necessary.

It appears from the above-made remarks that the draft Regulations differ in several points from those in use on the coast of Norway, and that it is partly impossible to arrange things in accordance with them.

The Norwegian Government is, therefore, to its regret, unable to sign a convention in conformity with the draft in question. Should, however, such a convention be accepted by a majority of the European countries, and amongst them Norway's neighbour countries, then the Norwegian authorities would try, gradually, to put into operation as many of the proposed regulations as possible.

Netherlands.

In a letter dated August 20th, 1934, the Netherlands Government communicated the following observations :

[Translation.]

1. The continuous numbering on each bank of the signs marking the bank of a channel seems preferable to the systems of placing odd numbers on marks to starboard and even numbers on marks to port. Moreover, such a distinction cannot be made if the marks carry letters.

2. The characteristics of light signals in a rough sea are often difficult to determine. A differentiation by the colour of the light, as allowed in Article 10, seems in this case to be preferable to differentiation by rhythm.

3. It would be desirable to give bifurcation and junction marks a colour different from that given to signals indicating that the main channel is to the right. In the system proposed by the Committee, the only difference is that between the topmarks, which has the drawback that if the topmarks are damaged or broken off by passing vessels, no difference remains. It would be desirable that the colour of one of these types should be red and black chequers.

4. With reference to observation 2, it would seem that the cardinal system might be simplified and improved by the adoption, in the southern and western quadrants, of red and

white high frequency scintillating lights instead of double red and white flashes. If flashing lights are employed in the northern and eastern quadrants, the difference between the two systems will be clearer.

5. As regards the marking of wrecks, it would be desirable to adopt the cardinal system which has been agreed upon between Germany, Denmark and Norway. In this system, the wreck is situated in a sector of 90° east or west of the signal. If two signals are placed, the wreck is situated in a well-defined rectangle, of which the two signals form the eastern and western angles.

6. It is understood that it will be possible to retain the following signals in the Netherlands Indies :

- (1) Fixed red lights for small ports ;
- (2) Fixed red lights for lantern buoys ;
- (3) Light signals without characteristics and of different shape to starboard and port ;
- (4) Light signals without topmarks ;
- (5) Signals painted white instead of signals painted red.

7. The colour of sea-lanterns need not be the same as that of the signals which they light.

Further, the Netherlands Government will be unable to accept any agreement as regards its European territory unless the unification agreement is also accepted by Germany, Belgium, France and the United Kingdom.

As regards the Netherlands Indies, the system of unification can be accepted only if the adjacent countries do the same. The acceptance of the uniform system by Curaçao depends on the attitude taken by the American continents towards the agreement, while Surinam is very little interested in the question.

Poland.

In a letter dated March 25th, 1935, the Polish Government stated that it considered that the unification of the buoyage of coasts, in view of its importance to the safety of navigation, was extremely desirable. The Polish Government therefore has no reservation to make with regard to the Preparatory Committee's draft, and states that, as the question is one of general interest, any scheme of unification likely to be adopted unanimously will be acceptable to it.

Roumania.

In a letter dated August 6th, 1934, the Roumanian Government stated that it had no objection to the Preparatory Committee's texts, to which it gives its entire support.

Sweden.

In a letter dated October 19th, 1934, the Swedish Government stated that, after consulting the competent authorities, it is prepared to conclude an agreement on the basis of the Preparatory Committee's draft on condition, however, that Germany, Belgium, the United Kingdom, Denmark, Estonia, Finland, France, Latvia, Norway and the Netherlands are or become at the same time parties to the agreement.

Union of Soviet Socialist Republics.

In a letter dated October 19th, 1934, the Government of the Union of Soviet Socialist Republics made the following statement :

[*Translation.*]

The competent services of the Union of Soviet Socialist Republics consider it desirable that there should be an international agreement for the unification of buoyage rules and for the purpose of increasing the safety of navigation in every sea.

Like several other countries, the Union of Soviet Socialist Republics employs simultaneously the lateral and cardinal systems of buoyage, and as a result of experience considers it necessary to continue to employ both systems, each of which is suitable for different circumstances.

The observations of the above-mentioned services are confined to details of no substantial importance. As regards lateral buoyage in particular, these services consider it desirable to introduce certain modifications in the shapes and colours of the buoyage marks and topmarks.

As regards the unification of rules for cardinal buoyage, the competent services of the Union of Soviet Socialist Republics make the following suggestions :

While accepting the shape and colour proposed in the draft for buoyage marks indicating a danger to the east or west, it would be desirable to reverse the combinations of topmarks on such buoys, thereby bringing the new system into line with that employed in the Union of Soviet Socialist Republics and the Baltic countries.

As regards the conclusion of an agreement on the unification of buoyage, the People's Commissariat for Foreign Affairs believes that the Soviet Government will willingly sign an agreement based on the Preparatory Committee's draft.

Yugoslavia.

In a letter dated August 7th, 1934, the Yugoslav Government stated that, having no observation to make on the Preparatory Committee's draft Agreement and Rules, it would be prepared to conclude with other Governments an agreement based on that draft.

At the same time, the Yugoslav Government stated that the Maritime Department had already, as far as its budgetary resources permitted, proceeded to replace the lighting and buoyage systems of the coasts in order to bring them into line with the draft.

ANNEX 4.

[C.C.T.581.]

May 29th, 1934.

REPORT BY THE COMMITTEE OF EXPERTS FOR THE STUDY OF A QUESTION RELATING TO THE PETITION SUBMITTED TO THE COUNCIL BY THE NOSKOVCI-SLATINA-NASICE LOCAL RAILWAY COMPANY, LIMITED.

A petition having been submitted to the Council of the League of Nations in virtue of Article 304 of the Treaty of Trianon by the Noskovci-Slatina-Nasice Local Railway Co. Ltd., Belgrade, the Council decided, before the placing of this question on its agenda, to ask the Advisory and Technical Committee for Communications and Transit to submit to it a report enabling it to take a decision with a full knowledge of the facts. The Chairman of the Advisory and Technical Committee entrusted the study of this question to a Committee consisting of M. E. L. ELIAS, Secretary-General of the Netherlands Railways, Utrecht, M. C. M. GRIMPRET, Vice-President of the General Council of Roads and Bridges and of the High Council of Public Works of France, and M. A. KRAHE, Engineer for Roads and Bridges, Madrid.

The Committee, at its session of April 23rd and 24th, 1934, took note of the documents submitted to it, a list of which is appended.

It heard the explanations given by the representatives of the Hungarian and Yugoslav Governments and of the petitioning company.

The Committee states below its findings and conclusions, the latter having been adopted unanimously.

The representative of the Noskovci-Slatina-Nasice Local Railway Company stated that the Szentlőrinc-Slatina-Nasice Local Railway Company had obtained a concession from the Hungarian Government for the construction and operation of a local railway from Szentlőrinc to Nasice via Slatina. The concession, which was dated July 21st, 1894, was to remain in force for a period of ninety years. Under a contract concluded between March 30th and April 18th, 1895, with the Hungarian State Railways, the latter took over the operation of the company's system. In consequence of the change in sovereignty resulting from the Treaty of Trianon, the greater part of the system is now situated in Yugoslav territory, the remainder being in Hungary. In 1925-26, the company sold that part of its system which is situated in Hungarian territory to a group of its shareholders, who made over the line thus purchased to the Szentlőrinc-Dravapart Local Railway Company, which they specially founded for the purpose. The original company, having thus disposed of its rights in the Hungarian section of the line, transferred its head offices to Belgrade, modified its articles of association and changed the name of the firm. The latter is now known in Belgrade under the name of "Vicalna Zeleznica Noskovci-Slatina-Nasice" (Noskovci-Slatina-Nasice Local Railway Company). The line of which this company is the owner is at present operated by the Yugoslav State Railways. The negotiations entered into with the Yugoslav Government with a view to reaching a friendly agreement for either the leasing of the railway or its purchase by the Government did not meet with success; the company therefore addressed a petition dated August 11th, 1933, to the Council of the League of Nations asking it to appoint arbitrators under Article 304 of the Treaty of Trianon.

The representative of the Hungarian Government has pointed out that, as an agreement has been reached between the company owning the Hungarian section of the line and the Hungarian Government, the present petition concerns the Yugoslav Government alone, so that the Hungarian Government cannot be regarded as in any way involved. The latter is, however, not opposed to the appointment of arbitrators to settle the difference between the company and the Yugoslav Government, and will hold itself in readiness to supply them with any particulars the arbitrators may require. The Hungarian representative further referred to his Government's letter of November 7th, 1933.

Without wishing to enter into the question whether the original company would have been justified in appealing under Article 304, the representative of the Yugoslav Government emphasises the fact that the petitioning company, the head offices of which are in Belgrade, and whose articles of association have been approved by the Yugoslav Government, is the owner of a line entirely situated in Yugoslav territory, whereas the purpose of Article 304 was to provide for the administrative and technical reorganisation of railways situated in the territory

of more than one State. The Yugoslav Government therefore contests the applicability of the article in question. If the company, whose claims are mainly of a financial character, cannot see its way to accept, by way of compensation, a settlement similar to that reached between the Yugoslav Government and many other Hungarian local railway companies, it can have recourse to the national courts.

The representative of the company stated that the latter's sole purpose in resorting to the procedure provided for by Article 304 was to reach a final settlement, but that it would be equally prepared to accept any other procedure which would lead to a satisfactory result, and that it was therefore willing to resume negotiations.

The representative of the Yugoslav Government intimated that, in his view, an agreement would not be impossible provided that the company's claims were kept within reasonable limits.

Such being the case, the Committee took the view that the dispute between the petitioning company and the Yugoslav Government could still be settled by friendly agreement between the parties. For that reason, it thought it unnecessary for the time being to express any opinion on the applicability of Article 304 of the Treaty of Trianon, and invited the parties to resume negotiations with a view to working out an agreement between themselves. It considered that a period ending on September 1st next was sufficient for the purpose, and requested the parties to inform it by that date whether an agreement had been reached or, if such were not the case, what was the position of the negotiations. If the negotiations had not reached a stage at which the conclusion of a friendly agreement might be expected in the near future, the Committee would then resume its consideration of the proposals to be made in respect of the company's petition.

Geneva, April 24th, 1934.

(Signed) E. L. ELIAS, GRIMPRET, A. KRAHE.

Appendix.

LIST OF DOCUMENTS SUBMITTED TO THE COMMITTEE.

1. Petition dated August 11th, 1933, submitted in virtue of Article 304 of the Treaty of Trianon by the Noskovci-Slatina-Nasice Local Railway Company, Belgrade.
2. Extract from the Minutes of the first meeting of the seventy-sixth session of the Council, September 22nd, 1933.
3. Extract from the Concession.
4. Articles of association of the Szentlőrinc-Slatina-Nasice Local Railway Company.
5. Extract from the operating contract.
6. Map.
7. Observations dated November 7th, 1933, submitted by the Hungarian Government.
8. Communication dated April 16th, 1934, from the Yugoslav Government.
9. Extract from the Minutes of the General Meeting of Shareholders of the Noskovci-Slatina-Nasice Company, held in Budapest, June 25th, 1924.
10. Authorisation No. 2817, of September 8th, 1925, issued by the Yugoslav Ministry for Commerce and Industry to the Noskovci-Slatina-Nasice Company for the transfer of its head offices from Budapest to Belgrade.
11. Extract from the company's articles defining the purpose for which it was founded.

ANNEX 4 a.

[C.C.T.603.]

November 5th, 1935.

LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE NOSKOVCI-SLATINA-NASICE LOCAL RAILWAY COMPANY, LTD., ON NOVEMBER 1ST, 1935.

We venture to refer you to the petition submitted in 1933 to the Council of the League of Nations in virtue of Article 304 of the Treaty of Trianon. In this petition, we requested the Council to appoint an arbitrator to settle the dispute which had arisen between the Yugoslav State and our company.

Following upon this request, the Communications and Transit Committee was asked to deal with the matter, and the two parties—namely, the Yugoslav State and our company—were summoned to Geneva on April 23rd, 1934. The meeting which took place resulted in the two parties being invited to continue direct negotiations and endeavour to reach a friendly agreement. It was understood that, if no agreement was reached, the Council would be informed (see Annex 4).

After this meeting, we several times endeavoured to reach an agreement with the Yugoslav Government. On May 11th, 1935, a meeting of which a procès-verbal was drawn up took place

at Belgrade and we have the honour to enclose herewith a copy of this procès-verbal.¹ As will be seen from the latter, we were prepared to accept the Yugoslav Government's offer, although it involved an enormous loss to our shareholders. We nevertheless accepted it, because we were desirous of putting an end to this dispute, which has been dragging on since the end of the war. According to the procès-verbal, we were obliged to ask the authorisation of our Board of Directors before finally adopting the Yugoslav Government's proposal, while that Government's representatives also reserved the right to seek authorisation. We immediately sent a circular to all our shareholders. This procedure, which cost us a great deal of labour and expense, enabled us to inform the Yugoslav Government in June 1935 that, having secured the consent of our shareholders, our Board of Directors ratified the agreement contained in the procès-verbal on May 11th. To our great surprise, the officials of the Yugoslav Government informed us of the Cabinet's resignation and of the fact that the new Government had refused to ratify the agreement. Despite our repeated representations, nothing further has happened and things are still in the same state as before—*i.e.*, the Yugoslav State continues to collect the receipts of our railway without accepting the settlement proposed on the basis of a lease or sale. We are therefore obliged to request the Council of the League of Nations and the Communications and Transit Committee to appoint urgently an arbitrator to examine the matter and settle the dispute.

We would ask you to transmit this request to the proper quarter.

Appendix.

PROCÈS-VERBAL.

Drawn up on May 11th, 1935, in regard to the negotiations concerning the settlement of legal relations between the Yugoslav State and the Noskovci-Slatina-Nasice Local Railway Company.

Representatives of :

The Yugoslav Government : MM. Stanoie Milivojevitch, Engineer, Rapporteur at the Ministry of Communications ; Radoje Voulovitch, Chief of Division at the Ministry of Communications ; Dragutin Vojnovitch, Chief of Division at the General State Railways Directorate ; Douchan Popovitch, Chief Councillor at the Ministry of Communications.

The company : Dr. Paul de Auer, Legal Adviser, and Dr. Michel Frank, Engineer, Director of the Company.

OBJECT OF THE NEGOTIATIONS.

Offer made by the company on December 5th, 1934, in which it proposed to lease its railway to the State for an annual rent of 600,000 dinars and a lump sum of 1,667,256 dinars in respect of arrears due for the years 1926 to 1935.

* * *

The representatives of the Government stated that the Government could not agree to the above proposal, but would be inclined to deal on the basis of a total purchase of the railway.

The representatives of the company, after taking cognisance of this declaration, declared their willingness to deal on this basis and to propose the sale of the railway for the sum of 13,549,344 dinars.

The representatives of the Government considered that this sum did not correspond to what they were able to offer.

After different proposals, the representatives of the Government stated that the maximum which the Government could offer would be 9,000,000 dinars, to which sum would be added 763,500 dinars in respect of interest for the period from June 1st, 1935, to August 10th, 1937.

The representatives of the company stated that they were not authorised to accept this proposal but would undertake to submit it to the Board of Directors of the company and would very shortly communicate the decision taken.

The representatives of the Government noted this statement and declared that, on their side, they would also seek authorisation to conclude the matter on this basis.

The representatives of the company stated that the conclusion of the agreement would only be possible if the Government paid the purchase price within a very short period and agreed to transfer the sum in question abroad.

In reply to which the representatives of the Government stated that the purchase price would be paid on the following dates : 763,500 dinars in respect of interest within two months of the conclusion of the agreement ; the capital sum of 9,000,000 dinars from May 10th, 1936, to August 10th, 1937, as follows :

| | Dinars |
|---|-----------|
| On May 10th, 1936 | 1,000,000 |
| On August 10th, September 10th and October 10th, 1936 (each) | 2,000,000 |
| On May 10th, 1937 | 1,000,000 |
| On August 10th, 1937 | 1,000,000 |

¹ See Appendix.

The Government is prepared to give the company Treasury bonds in payment of these sums made out for the due dates.

IN FAITH WHEREOF the representatives of the two parties have signed the present procès-verbal.

(Signed) Ing. Stanoie MILIVOIEVITCH m.p.
Rad. VOULOVITCH m.p.
Drag. VOJNOVITCH m.p.
Douchan POPOVITCH m.p.
Dr. Mihajlo FRANK m.p., Paul AUER m.p.

ANNEX 5.

[C.C.T./P.N.5.]

May 14th, 1935.

REPORT OF THE SPECIAL COMMITTEE FOR THE STUDY OF
SIGNALS AT LEVEL CROSSINGS.

In pursuance of the resolution adopted by the Permanent Committee on Road Traffic at its eighth session (paragraph 3), the Chairman of the Advisory and Technical Committee for Communications and Transit set up a Special Committee for the study of the question of signals at level crossings, composed of :

- M. E. MELLINI, Higher Inspector of Railways, Tramways and Automobiles of the Kingdom of Italy (*Chairman*) ;
- M. Ch. H. J. DRIESSEN, Chief Engineer, Head of the Permanent Way and Works Department of the Netherlands Railways ;
- M. P. C. FRANKLIN, of the Roads Department, Ministry of Transport of the United Kingdom ;
- M. H. HUNZIKER, Director of the Railways Division at the Swiss Federal Department of Posts and Railways ;
- M. P. A. VALSINGER, Head of the Technical Service of the Swedish Department of Roads and Bridges ;
- M. C. WALCKENAER, former Inspector-General of Mines at the French Ministry of Public Works ;
- M. J. L. METTERNICH, Secretary of the Special Committee.

This Special Committee met at Geneva from January 10th to 12th, 1934, and from August 22nd to 25th, 1934.¹

In the interval, extensive documentary material was collected on the basis of a questionnaire (C.L.21.1934.VIII) sent out by the Secretary-General of the League of Nations to the Governments of European States and to those of the United States of America and Canada. Replies from thirty States² have been received and analysed by the secretariat of the Special Committee.

From the outset of its work, the Special Committee found it desirable, at least for the present, to confine its study to the question of the international unification of the system of signals adopted for the protection and regulation of road traffic at level crossings, without going into the question whether it would be possible and advisable in every case to use any particular system of regulation or protection.

Some reference to the present situation may now be useful.

Under the uniform system of road signals instituted by the International Convention of April 24th, 1926, and supplemented by that of March 30th, 1931, signals giving warning of railway level crossings are triangular in form, like other danger signals. Their distinctive feature, save in exceptional cases when the triangle is hollow, is that they bear in the centre the picture of a gate or of a locomotive, according to whether it is a level crossing with gates or a level crossing without gates.

There was for a time some hesitation as to whether these two pictures were suitable in the case of certain level crossings at which there are no actual gates, but which are in fact guarded. This question is now settled. The picture of the gate is to be reserved for level crossings actually provided with gates ; that of a locomotive is to be used for all other level crossings, whether guarded or not.

These triangular advance signals are already very widely used. It is important, however, to distinguish between the *de facto* situation and the legal obligation in the matter. Under the international Convention, contracting States have undertaken to introduce this system

¹ M. Valsinger was unable to attend the second meeting.

² Albania, Austria, Belgium, United Kingdom of Great Britain and Northern Ireland, Bulgaria, Canada, Czechoslovakia, Denmark, Estonia, Finland, France, Greece, Hungary, Irish Free State, Italy, Latvia, Lithuania, Monaco, Netherlands, Norway, Poland, Portugal, Roumania, Saar, Spain, Sweden, Switzerland, Turkey, United States of America, Yugoslavia.

of advance signals, or to have it introduced in their territories, and to exclude all other signals for the purpose. But this undertaking applies only to the form and appearance of the signals ; it prevents a different kind of signal from being used for the same purpose ; it does not create any positive obligation as to their general use. In point of fact, certain States which have acceded to the Convention have not as yet taken any general measures to make the institution and upkeep of these advance signals legally compulsory on the roads in their territory.

Further, it is recognised that level crossings without gates should have a second signal placed in the immediate vicinity of the crossing, showing the position of the crossing and preventing any risk that a driver who has not fully grasped the significance of the figure on the advance signal may confuse the crossing in question with a level crossing with gates of which the gates are open.

There is no clause on this subject in the international Conventions. The International Railway Union has adopted for the purpose a special signal in the form of a single or double St. Andrew's Cross, according as the line is single or double. This signal in the form of a St. Andrew's Cross is already very commonly employed. But so far it has not formed the subject of any agreement between States.

The two signals just referred to must be regarded as essential ; but, in several countries which have had a wide experience of their use, they are not regarded as adequate.

It is important to distinguish, as regards signalling, between three categories of level crossings ; those with gates (category A) ; those without gates, but with automatic signals announcing the approach of trains (category B) ; and, lastly, those without gates and without automatic signals (category C).

As regards category A, since it sometimes happens that cars dash into closed gates, it seems essential that the gates should not only be painted in some distinctive fashion, but that during the night, if they are not open, they should be provided with red lights facing the road for " Stop ", or with red reflectors, or that they should be lighted by a special projector.

Further, several States have noted the utility of various supplementary devices designed to attract the attention of drivers of motor-vehicles or to keep their attention as they are approaching a level crossing. These devices are as follows :

- (a) To place reflectors on the rim of the advance signal ;
- (b) To place along the road, between the advance signal and the level crossing, a series of posts showing the distance ;
- (c) To place, in the immediate vicinity of the level crossing, palings painted in distinctive colours.

The Special Committee does not propose to require these supplementary measures to be taken at all level crossings of category A, whatever the density of traffic on the road, or that they should all be taken simultaneously ; but it seems to it not unreasonable that on roads on which there is heavy motor traffic it should be made compulsory to adopt at least one of those measures.

As regards category B, it is essential that the special signal giving warning of the approach of trains should be distinctive and such as to arrest the attention of users of the road. After having reviewed the various devices that have been used or tried, the Committee proposes that it be decided that the signal should consist both by day and by night of one or more red flashing lights. It will be accompanied by a sound signal.

On roads on which there is heavy motor traffic it is desirable also to supplement the system either by a flashing light showing white when the crossing is free or by one of the provisions (a), (b) or (c) already described.

No mention has been made above, for the level crossings in categories A and B, of any condition regarding the visibility of the railway-lines for users of the road ; not that this question of visibility is negligible, but because, in principle, the Special Committee's proposals are intended to refer only to signals and because, for crossings of categories A and B, judicious signalling arrangements can and should serve adequately to supply any shortcomings in regard to visibility. But for level crossings of category C, the question does not present itself in the same manner. The Special Committee considers good visibility essential and places it in the forefront of the conditions to be fulfilled by level crossings of that category. The visibility should be such that, with due allowance for the maximum speed of the trains, the driver of a vehicle approaching a railway may have time to stop before entering the crossing when a train is in sight and a driver who has entered the crossing when a train appears may have time to clear the crossing.

Further, for all level crossings of category C, whatever the density of traffic on the road, it is essential that the signals consisting of a triangular advance signal and the St. Andrew's Cross signal should be supplemented either by an amber flashing light functioning throughout the hours of service, or by one of the provisions (a), (b) or (c).

This would make it possible, for the three categories of level crossings, to contemplate a system of signalling which would be uniform in the essential provisions, while permitting of some freedom of choice for measures of detail. This elasticity would facilitate the adoption of the system by Governments which, on these points, prefer the solutions that each of them has already selected and that it would be a costly matter to replace. As regards the main provisions, it is essential from every point of view that unity should be achieved as soon as possible.

The Special Committee's conclusions are given in Chapter I hereunder, principally for the purposes of main railway lines. Chapter II shows briefly the principles on which the question should be settled for local railways and tramways. Lastly, various recommendations form the subject of Chapter III.

CONCLUSIONS.

(Final text settled by the Chairmen of the Special Committee and of the Permanent Committees on Road Traffic and Transport by Rail.)

[C.C.T./604.]

CHAPTER I.

For purposes of the signalling and protection of level crossings, the Committee is of opinion that level crossings may be divided into the following three categories :

- A. Level crossings with gates ;
- B. Level crossings without gates but with automatic signals ;
- C. Level crossings without gates and without automatic signals.

For each of these three categories, the Special Committee is of opinion that the regulations to be laid down must be based on the following principles :

A. Level Crossings with Gates.

1. Warning of level crossings with gates must be given on the road by means of triangular advance signals bearing the picture of a gate, in conformity with the 1926 Convention. The signal post must be painted in alternate red and white, or red and light yellow transverse stripes.

On main roads and on secondary roads with heavy motor traffic during the night, the rim of the triangle must be provided with a number of white or yellow reflectors. Such reflectors should not be compulsory if, between the advance signal and the gate, the neighbourhood of a level crossing is shown either by a number of posts indicating distances, placed on the right or left side of the road according as the traffic keeps to the right or left, or by placing in the immediate neighbourhood of the level crossing, to left and right, palings painted red and white, or red and light yellow, and so arranged as to attract the notice of motor-drivers.

2. Gates must be painted red and white, or red and light yellow.

3. In order to make gates more visible by night they must be provided either with red reflectors, or with a red light, or with a flood-light illuminating the gate whenever it is not fully open.

4. In order to avoid any confusion with level crossings coming under categories B and C, level crossings with gates must not be provided with signals in the form of a St. Andrew's Cross.

5. Gates operated from a distance (whether by a railway employee or by an automatic device) must be provided with sound or sight signals giving road users warning in sufficient time that the gate is about to be closed. Road users not yet on the level crossing must stop before reaching it ; road traffic already on the level crossing must clear it speedily. Gates must be closed slowly enough to enable such traffic to clear the crossing.

6. At all level crossings with gates, the gates must be guarded during the whole period when train services are in operation. Should a level crossing be transferred from category A to category B or C, the gates must be removed in order to avoid any misunderstanding on the part of road users.

B. Level Crossings without Gates but with Automatic Signals.

1. Warning of level crossings without gates but with automatic signals must be given on the road by means of an advance triangular signal bearing the picture of a locomotive, in conformity with the 1926 Convention. The posts must be painted as provided above in the case of level crossings with gates.

2. In the immediate vicinity of the railway, a signal must be placed in the form of a single or double St. Andrew's Cross, according as the line is single or double. The St. Andrew's Crosses must be painted in two colours, red and white or red and light yellow ; the signal posts must be painted in alternate stripes of the same two colours.

3. The automatic signal giving warning of the approach of trains must also be placed in the immediate vicinity of railway lines. Both by day and by night, this signal must consist of one or more flashing lights, red in colour, indicating that road traffic must stop.

4. The above-mentioned red light signal must be accompanied by a sound signal.

5. On main road and on secondary roads with heavy motor traffic during the night, one of the following four devices must also be used :

(a) A flashing white light, appearing at periods other than those at which the red flashing light is shown.

(N. B. — All necessary precautions will have to be taken to ensure that, if the signal is not working properly, it cannot be interpreted in a manner contrary to safety.)

(b) Between the triangular advance sign and the level crossing, a number of posts indicating distances on the right or left side of the road, according as the traffic keeps to the right or left.

(c) In the immediate neighbourhood of level crossings, to right and left, palings painted red and white or red and light yellow, and so arranged as to attract the notice of motor-drivers ;

(d) Reflectors suitably placed on the triangular advance signal, white or yellow in colour.

6. Signals of the same kind, but operated by hand instead of being automatic, shall be regarded as equivalent to the automatic signalling of the approach of trains prescribed above.

C. *Level Crossings without Gates and without Automatic Signals.*

1. In the case of level crossings without gates and without automatic signals, it is essential that the railway lines should be clearly visible to users of the road, with due allowance for the maximum speed of the trains, so that the driver of a vehicle approaching a railway from either side may have time to stop before entering the crossing when a train is in sight, and a driver who has entered the crossing when a train appears has time to clear the crossing.

2. Such level crossings, if used by motor traffic, must be marked on the road by the advance triangular signal bearing the picture of a locomotive prescribed by the 1926 Convention.

3. In the immediate vicinity of the railway a signal must be placed in the form of a single or double St. Andrew's Cross, according as the line is single or double. The St. Andrew's Crosses must be painted in two colours, red and white, or red and light yellow. The signal posts must be painted in alternate stripes of the same two colours.

4. Furthermore, for level crossings used by motor traffic, one of the following devices should be used :

(a) Between the triangular advance sign and the level crossing, a number of posts indicating distances on the right or left side of the road, according as the traffic keeps to the right or left.

(b) In the immediate neighbourhood of level crossings, on both the right and left side of the road, palings painted red and white or red and light yellow, and so arranged as to attract the attention of motor-drivers.

(c) A flashing orange light, working during the whole period when the train service in the immediate neighbourhood of the level crossing is in operation.

(d) Reflectors suitably placed on the triangular advance signal, and white or yellow in colour.

CHAPTER II.

The above regulations are intended chiefly for the main lines. In the case of local lines and tramways, the warning signals must have the same characteristics, shapes and meanings as in the case of level crossings on the main lines. As regards their use, however, certain simplifications might be allowed in particular cases by the Governments of the respective countries.

In the case of sections of local railways or tramways in built-up areas, the regulations to be applied shall be left to the competent authorities of each country.

CHAPTER III.

In addition to the above proposals, the Committee would add the following recommendations :

1. That as many level crossings as possible should be abolished, mainly through replacement by underground or overhead crossings.

2. That when new lines are constructed, no level crossings should as a rule be made, and that even in the case of secondary lines, the number of level crossings should be reduced to a strict minimum. In any case, the most favourable conditions possible should be ensured as regards the visibility and course of both railway and road.

3. That the Governments should take all the necessary steps to see that the employee responsible for operating the gates is warned of the arrival of trains, so as to ensure both that the gates are closed in sufficient time and that delays to traffic are reduced to a minimum.

4. That the regulations governing level crossings and the signalling of such crossings, on points of detail not prescribed by the above provisions, should be made as uniform as possible in each country.

5. That additional measures of security should be taken in each country in the event of fog and all other circumstances abnormally reducing safety.

6. The Governments should endeavour to remedy the situation created by the existence in certain countries of side gates which may be used at will by pedestrians and which cause a large number of accidents.

ANNEX 6.

GERMAN REPRESENTATION ON THE INTERNATIONAL DANUBE COMMISSION.

(a) LETTER AND MEMORANDUM ADDRESSED TO THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE GOVERNMENT OF THE UNITED KINGDOM ON JUNE 4TH, 1935.

[C.C.T./589.]

June 19th, 1935.

In accordance with Article 376 of the Treaty of Versailles and the resolution of the Assembly of December 9th, 1920, I am directed by Secretary Sir John Simon to communicate to you for transmission to the Advisory and Technical Committee for Communications and Transit the enclosed memorandum concerning a dispute which has arisen with regard to German representation on the International Commission of the Danube.

2. His Majesty's Government in the United Kingdom reserve the right, if necessary, to present to the Committee at a later date a further memorandum setting out their views on the matter.

(Signed) Owen O'MALLEY.

MEMORANDUM.

1. Article 347 of the Treaty of Versailles and the corresponding articles of the other peace treaties provide that :

From the point where the competence of the European Commission ceases, the Danube system referred to in Article 331 shall be placed under the administration of an International Commission composed as follows :

Two representatives of German riparian States ;

One representative of each other riparian State ;

One representative of each non-riparian State represented in the future on the European Commission of the Danube.

If certain of these representatives cannot be appointed at the time of the coming into force of the present Treaty, the decisions of the Commission shall nevertheless be valid.

Article 8 of the Statute of the Danube provides that :

[Translation.]

“ The International Commission is composed, in accordance with Articles 347 of the Treaty of Versailles, 302 of the Treaty of St. Germain, 230 of the Treaty of Neuilly, and 286 of the Treaty of Trianon, of two representatives of the German riparian States, one representative of each of the other riparian States and one representative of each of the non-riparian States which are, or which may be in future, represented on the European Commission of the Danube.”

2. At the time when the Treaty of Versailles was signed, the administration of rivers belonged under the German constitution exclusively to the German States, of which two, Bavaria and Württemberg, were riparian States of the River Danube. On April 1st, 1921,

shortly after the Treaty of Versailles entered into force, in execution of Articles 97 and 171 of the German Constitution, a part, but not the whole, of the administrative powers over the waterways which are navigable within the meaning of that term in German law (which does not comprise the whole extent of the international waterways contemplated by the treaties) was transferred from the German States to the Reich. As the result of this transference, it became necessary for practical reasons that the representatives of the German States on the River Commissions should be in a position to represent the Reich as well as their own States.

3. After discussions, which took place both in the International Commission of the Danube and through the diplomatic channel, an agreement was reached with regard to the German representation on the Commission. This agreement was embodied in the resolution of the Commission of June 26th, 1926, which runs as follows :

[*Translation.*]

“ Interior Organisation of the Commission.

“ I. Designation of the German Delegations.

“ Article I of the Regulation fixing the programme of work of the International Commission of the Danube shall be drawn up in the following terms :

“ The presidency of the International Commission of the Danube is held in turn by the substantive delegates in the alphabetical order of the States which they represent as follows :

- “ Delegate of Austria ;
- “ German delegate for Bavaria ;
- “ Delegate of Bulgaria ;
- “ Delegate of France ;
- “ Delegate of Great Britain ;
- “ Delegate of Hungary ;
- “ Delegate of Italy ;
- “ Delegate of Roumania ;
- “ Delegate of the Kingdom of the Serbs, Croats and Slovenes ;
- “ Delegate of Czechoslovakia ;
- “ German delegate for Württemberg.

“ The German delegation for Bavaria and the German delegation for Württemberg are considered collectively as the representatives of the Reich and the German riparian States.

“ The presidency is held for periods of six months, of which the beginning is fixed on January 1st and July 1st of each year.

“ If the delegate who is called to take the presidency finds himself prevented from accepting that office, it passes to the next delegate in alphabetical order.

“ Where the President is prevented from fulfilling his duties or is absent, the interim presidency is held by one of the substantive delegates, chosen in inverse order to that which regulates the holding of the presidency, beginning with the last President.

“ Where no substantive delegate is in a position to discharge the interim presidency, that office is held by the deputy of the President-in-office, or, failing him, by one of the deputy delegates, chosen in the order indicated in the preceding paragraph.”

4. Following further changes in the German Constitution, the Reich, in execution of Article 2 of the Law of January 30th, 1934, and of the Order of February 2nd, 1934, assumed the sovereign powers of the German States in all that concerns representation on the International River Commissions. In consequence, the Reich Government appointed two representatives on the International Commission of the Danube, furnished with full powers issued in the name of the Reich alone, and maintained that, under the Treaty of Versailles and the Statute of the Danube, the Reich was entitled to be represented on this Commission by these two delegates, each possessing a vote.

5. At the Commission's session of December 1934, the question whether the two German representatives, furnished with the full powers in question, were entitled to take their places on the Commission, under the provisions of the Statute of the Danube, was put to the vote. No quorum could, however, be obtained, and the Commission therefore found its: If unable to take any decision on this question. In these circumstances, the Commission decided (the number of votes necessary to provide a quorum having been obtained on this occasion) that, in the absence of a resolution recognising the validity of the full powers in question, the German representatives could only take their places on the Commission and vote by virtue of a special agreement. A resolution so stating the legal position and at the same time approving a *modus vivendi* regarding the German representation was adopted in the following terms :

[*Translation.*]

“ German Representation on the International Commission of the Danube.

“ The Commission,

“ Taking note that no quorum could be obtained for a vote on the question whether the full powers of Herr Martius, Herr Sauter, Herr Baur and Herr Greuling were in conformity with the Statute of Danube ;

“ Taking note that these full powers are thus not recognised, and that, in consequence, the said representatives can only take their places and vote by virtue of a special agreement ;

“ Taking into consideration the proposal for arbitration or judicial decision formulated by the delegate of the United Kingdom and the possibility of settling the question by other means ;

“ Desiring to make possible meanwhile the collaboration in its work of the German representatives, their deputies and assistant :

“ Approves the following *modus vivendi*, which in no way prejudices the questions of principle relating to the juridical position of the said representatives :

“ *Modus Vivendi*.

“ 1. The German representatives (delegates) shall be designated during sessions of the Commissions by this name alone or by their personal name.

“ The Minutes shall bear as indication :

| | | |
|--|---|-------------------------------------|
| “ The German representatives (delegates) ¹ | { | Dr. Martius, substantive delegate ; |
| | | M. Baur, deputy delegate ; |
| | | Dr. Sauter, substantive delegate ; |
| | | M. Greuling, deputy delegate ; |
| | | M. von Heinz, assistant delegate. |

“ 2. *Voting*.—Each German delegate may vote ; in case of absence, he can be replaced by his deputy. In the case of the absence of one of the substantive delegates and of his deputy, neither the other substantive delegate nor his deputy shall vote in their place.

“ In the Executive Committee, the German assistant delegate shall only possess one vote as hitherto.

“ 3. *Presidency*.—This question does not in fact arise ; if necessary, it would be considered during the extraordinary session contemplated by the article ‘ Duration ’ below.

“ 4. *Contribution*.—There will be two contributions.

“ 5. *Duration*.—The present *modus vivendi* will remain in force until the beginning of the ordinary session of June 1935, or until a settlement of the question has been arrived at, if a settlement is reached before that date.

“ It is nevertheless understood that, if, before the expiration of the said period, either an agreement is reached for reference to arbitration or the affair is submitted to a judicial decision, the *modus vivendi* shall remain in force until the close of whichever procedure is adopted.

“ Except in the case of a settlement of the affair through the diplomatic channel, an extraordinary session will be convoked at Vienna eight days before the opening of the ordinary session, in order to examine the position.

“ The delegates undertake to refer the question to their Governments, in order that the latter may examine the expediency of settling it through the diplomatic channel or by arbitration or by any other means, drawing their attention to the urgency of a definitive settlement of the matter.”

The Commission notes that the above *modus vivendi*, communicated to the German representatives by a letter dated December 13th, 1934, was accepted in their name by Dr. Martius in a letter of the evening of the same day, and that, from the moment of this acceptance, the strict observance of the *modus vivendi* became equally obligatory for all members of the Commission.

6. By virtue of this resolution, two representatives of the Reich are enabled to take their places and to participate in the deliberations of the Commission until the ordinary session which is to be held in June 1935, and in the event of proceedings having been instituted for the judicial settlement of the question, until the close of these proceedings. It appears that the Commission would consider the affair as having been submitted to “ judicial decision ” from such time as the organ of conciliation contemplated by the resolution of the Assembly of the League of Nations of December 9th, 1920, in application of Article 376 of the Treaty of Versailles, should have been seized of it, this conciliation procedure being in fact a necessary preliminary to the “ judicial decision ” of the dispute by the Permanent Court of International Justice.

7. It has proved impossible to reach any agreement, either through the diplomatic channel or as the result of further discussion in the Commission. It appears that the dispute which has thus arisen turns exclusively on the interpretation and application of Article 347 of the Treaty of Versailles in present circumstances. The Advisory and Technical Committee will no doubt recognise that this dispute can only be settled by the solution of the questions of law at issue, either by means of an agreement or by a judicial decision.

8. The Treaty provided that there should be two representatives of the German riparian States in the circumstances indicated in paragraph 2 above. The two former German riparian States have now completely ceased to exist as entities possessing international personality.

¹ Provisional designation (see resolution of December 13th, 1934).

Their powers with regard to the international waterways have been transferred under the German Constitution to the Reich. In consequence, there is now only one single German riparian State on the Danube—namely, the Reich. The question at issue is whether the Reich Government is entitled to two representatives on the International Commission of the Danube, or to one representative on it, or whether, since the treaties did not provide for any representation of the Reich and the two German riparian States have disappeared, a new diplomatic agreement is necessary to settle the German representation on the Commission.

(b) LETTER, ACCOMPANIED BY FOUR ANNEXES, ADDRESSED TO
THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE
GOVERNMENT OF THE UNITED KINGDOM OF GREAT BRITAIN
AND NORTHERN IRELAND ON JULY 24TH, 1935.

[C.C.T./589(a).]

October 7th, 1935.

1. In the Foreign Office letter of June 4th last (Annex 6(a)), communicating, for transmission to the Advisory and Technical Committee for Communications and Transit, a memorandum concerning the dispute which has arisen with regard to German representation on the International Commission of the Danube, Sir John Simon stated that His Majesty's Government in the United Kingdom reserved the right, if necessary, to present to the Committee at a later date a further memorandum setting out their views on the matter.

2. I am now directed by Secretary Sir Samuel Hoare to transmit, for communication to the above-mentioned Committee, copies of the following correspondence relating to the subject :

(1) A communication from the German Embassy in London dated January 15th last, enclosing copies of a note from the French Ministry for Foreign Affairs to the German Embassy in Paris of December 1st, 1934, and of that Embassy's reply of December 22nd, 1934 ;

(2) A note addressed to the German Ambassador in London by Sir John Simon in reply to the above communication ;

(3) An *aide-mémoire* left at the Foreign Office by the German Embassy on April 24th last ; and

(4) A note in reply to that *aide-mémoire*, addressed to the German Ambassador by Sir John Simon on May 30th last.

(Signed) Owen O'MALLEY.

I. COMMUNICATION FROM THE GERMAN EMBASSY IN LONDON, DATED
JANUARY 15TH, 1935.

[Translation.]

With reference to the note of October 4th last, copy of which was communicated to the other Governments represented on the International Danube Commission, the new full powers for the German delegation, copy of which is attached, was in the late autumn transmitted to the Commission. The text of this full power is to be understood as signifying that the Reich has retained all the rights on the International Danube Commission which appertained to it prior to the reorganisation of Germany under its domestic legislation, and that, as already stated in the note of October 4th, 1934 (A.3436), it has acquired, in addition, the sovereign rights which, up to that time, were possessed by the German States of Bavaria and Württemberg. In practice, even before 1934, the German States were unable to conduct foreign relations without the intervention of the Reich, and the two German representatives on the International Danube Commission have hitherto only been able to vote in the same sense and in accordance with the instructions of the German Government. The legal position in this respect was, in principle, no different from that of the other internationalised rivers of Germany—the Rhine, the Elbe and the Oder.

At its meeting in December, the Danube Commission put to the vote the question whether the new German full powers were compatible with the Danube Statute. On proceeding to vote, there was found to be no quorum. The Commission thereupon, by a statutory majority, inferred from this absence of quorum that, without a special agreement, the German representatives had no seat or vote on the Commission. The special agreement—*modus vivendi*—has been concluded until June 1935.

The German Government has, at the moment, no occasion to go more fully into the proceedings of the International Danube Commission, especially as the German delegation on the Commission has made the necessary reservations in this respect. It proposes, on the other hand, to furnish the British Government, whose representative likewise opposed the validity of the full powers of the German delegates on the Danube Commission, with an

exhaustive written substantiation of their position as explained above. This, however, cannot profitably be done until the German Government has been informed of the fundamental attitude of His Majesty's Government. An answer to the following questions appears to be particularly important :

(1) Do the British Government dispute the right of the German Reich to be represented on the International Danube Commission ?

(2) If not, do the British Government dispute the right of the German Reich to have two delegates on the International Danube Commission, as hitherto, if one of them is not simultaneously designated as the representative of Württemberg and the other as the representative of Bavaria ?

Should even one only of these two questions be answered in the affirmative, the German Government would be grateful if it could be furnished by the British Government with a statement, in such detail as may be possible, of the reasons for the said attitude.

The German Government desires to observe that it is not at present entirely clear to them from what aspects they can, in view of certain domestic changes, be deprived of a right which Germany has exercised since 1920.

*Note from the French Ministry for Foreign Affairs to the German Embassy in Paris,
dated December 1st, 1934.*

[*Translation.*]

In its note B 3875 II 3, of November 20th, the German Embassy communicated to the Ministry for Foreign Affairs the observations suggested to its Government by the French Government's reply to the German note of October 4th last concerning German representation on the international river commissions.

The German Government considers that the Embassy's note of October 4th merely contains a notification of the changes involved, in the German Government's opinion, by German internal reorganisation. It was not the purpose of this note to open a diplomatic discussion with the French Government.

As regards the Central Commission for Rhine Navigation, the German Government considers that the matter may be regarded as finally settled by the recognition of the new German full powers by that Commission. The Embassy adds that it will rest with the International Commission of the Danube to decide as to the new full powers sent to it, entitling Germany to be represented on that Commission, and that this procedure must also be followed in regard to the Elbe and Oder Commissions.

Without wishing to prejudge these discussions, the German Government regrets to note that, in its note of October 26th last, the French Government referred to its note of November 13th, 1924, in which it disputed the right of the German Reich to be represented on the river commissions. The Embassy adds that, needless to say, the German Government has never accepted this contention, and if the French Government reverts to it in connection with future negotiations, the German Government will reserve the right to draw the necessary conclusions.

Lastly, the Embassy emphasises the German Government's view that the manner in which the question of German representation on the river commissions is settled cannot affect the decisions to be taken in the event of a union between the States entitled to vote.

With reference to this communication, the Ministry for Foreign Affairs has the honour to point out to the German Embassy that, as its communication relating to the new state of affairs in regard to German public law and its effect, in the opinion of the Reich Government, upon German representation on the international river commissions was made to the French Government through diplomatic channels, the latter was justified in informing the German Government, and the other Governments to which the matter was submitted by that Government, of its opinion as to the effect of the new regime likewise through diplomatic channels.

As regards the Central Commission for Rhine Navigation, the French Government cannot agree that the matter has been finally settled. That Commission, when recognising the validity of the new full powers of the German delegates, unanimously stipulated that its decision should not affect "such decisions as the Governments might take in the general matter of representation on all river commissions".

The Governments are thus free to settle the question of German representation on this Commission as they think fit. Moreover, in this connection, the French Government maintains the proposals contained in its note of October 26th last.

The French Government agrees that the International Commission of the Danube shall examine the German delegates' new powers at its next session.

On the other hand, the French Government cannot but be surprised that, after ten years, the German Government should dispute a contention which is strictly in accordance with the treaties. If the German Government disagreed, it had an opportunity of stating its views, not only when it received the verbal note from the Ministry for Foreign Affairs of November 13th, 1924, but also later, during the discussions of the International Commission of the Danube in June 1926. On referring to the Minutes of that Commission (P.V.14.1926, pages 210 to 217),

the German Embassy will find that the French delegate reasserted, in the most categorical manner, that neither the treaties nor the Danube Statute provided for a German delegation on the Commission, and that it was the States of Württemberg and Bavaria which were represented on that body—and not Germany *qua* Germany.

Moreover, M. Charles Roux' statement was simply based on a memorandum handed to him by his German colleague for Bavaria on April 11th, 1926, in accordance with which "it would always be Bavaria and Württemberg which would be represented on the Danube Commission". Far from contradicting the French delegate's assertions, the German plenipotentiaries fully associated themselves with M. Charles Roux' statement regarding the result of the negotiations and their consequences.

In the memorandum of April 11th referred to above, the German delegation had emphasised the necessity for an agreement between France and Germany on this matter.

Lastly, the French Government cannot agree to the question of German representation being settled otherwise than according to the principles to be applied in the event of the union of two States each entitled to vote, and to Germany's receiving in this respect treatment which is not justified by any consideration of law or of equity.

Since the German Government, at the outset, expressed its views in the form of a circular note addressed to Governments and communicated to the commissions, the French Government has considered it expedient to follow the same procedure, to which it will adhere as regards the foregoing considerations.

Reply from the German Embassy in Paris, dated December 22nd, 1934.

[*Translation.*]

The German Embassy has the honour, on behalf of the German Government, to reply as follows to the note of December 1st, 1934 (4 R/M), from the French Ministry for Foreign Affairs, Department of Commercial Relations :

The German Government has not the least intention of disputing the French Government's right to make observations regarding the German communications on the question of the German representation on the international river commissions. The German Government must, however, maintain its point of view in the matter.

1. So far as the question of German representation on the Rhine Commission is concerned, the German Government considers that it has no occasion at present to enter into discussions relating to the scope of the decision of this Commission respecting the German full powers. It continues to regard this decision as final. Moreover, it has the honour to point out that the question of the revision of the Rhine Act is to be discussed on March 12th, 1935, at a special meeting of the Central Commission at San Remo, where the question of the future organisation of the Commission is also to be considered.

2. As regards the German representation on the International Danube Commission, the German Government is of a completely different opinion respecting the legal position. It is further not correct that the French point of view—viz., that it is not Germany, but the separate States of Württemberg and Bavaria which are represented on this Commission—has been recognised at any time by Germany. On the contrary, ever since 1920, there is no doubt that Germany has been represented on the Commission (cf. *Conférence internationale pour l'établissement du Statut définitif du Danube*, Prot. No. 35, page 554 *et seq.*, Mr. Baldwin). The events of 1926, which are specified in the note of December 1st, relate to details connected with the designation of the German delegation and to the question of the presidency. Only in regard to this latter question does the memorandum handed on April 11th, 1926, by Herr Seeliger, the then German delegate on the International Danube Commission, to M. Charles Roux, the French delegate, possess any significance. It is suggested that the quotation, taken from a subordinate clause, may be re-examined in this sense.

Moreover, in the opinion of the German Government, the events which have meanwhile taken place at the December meeting of the International Danube Commission make it appear desirable to investigate thoroughly the legal questions raised in connection with the German representation on this Commission. For these reasons, the German Government proposes to acquaint the Governments concerned as soon as possible with its point of view relating to the actual and legal position. This cannot profitably be done, however, until the German Government has been informed in a manner free from doubt of the French Government's legal standpoint. An answer to the following questions appears to be particularly important :

(a) Does the French Government dispute the German Government's right to be represented on the International Danube Commission ?

(b) If not, does the French Government dispute the German Government's right to have two delegates on the International Danube Commission, as hitherto, if one of them is not simultaneously designated as the representative of Württemberg and the other as the representative of Bavaria ?

Should even one only of these two questions be answered in the affirmative, the German Government would be grateful for information whether the reasons so far advanced as objections against German representation on the Danube Commission with two votes are exhaustive. If not, a statement of any other existing objections is requested.

Finally, as regards the question of equity mentioned anew in the note of December 1st, the German Government would limit itself to the observation that, as between Germany and France, the arrangement applicable in the Danube Act, especially if the whole of the course of the river (Ulm to the Black Sea), and the shipping interests of the two parties, be taken into consideration, can in no way be regarded as specially advantageous to Germany. Still less does it seem to the German Government to afford an occasion to aggravate even further this position to the disadvantage of Germany and contrary to the interests of other States bordering the Danube.

A copy of paragraph 1 of this note will be communicated to the Central Commission for Rhine Navigation. A communication will be made in due course of the entire note to the Governments represented on the International Danube Commission.

2. NOTE TO THE GERMAN AMBASSADOR IN LONDON, IN REPLY TO THE
COMMUNICATION DATED JANUARY 15TH, 1935.

Foreign Office, London,

February 11th, 1935.

Your Excellency,

I have the honour to refer to the *aide-mémoire* regarding the German representation on the International Commission of the Danube which was left at this department by a member of your staff on January 15th.

2. In this communication, Your Excellency referred to the meeting in December of the International Commission of the Danube, at which a vote was taken on the question whether the new full powers furnished in the name of the German Reich to Dr. Martius and Dr. Sauter as delegates on the Commission, and to Herr Bauer and Herr Greuling as their deputies, were in accordance with the Statute of the Danube. Since the number of delegates voting was insufficient to constitute a quorum, and therefore no decision could be reached, this vote was followed by a decision of the Commission (carried by the necessary number of votes) to the effect that, in the absence of a decision accepting these new full powers, these German representatives could only sit and vote in the Commission by virtue of a special agreement. A *modus vivendi*, under which the German representatives took part in the work of the Commission, was then concluded, which remains in force until the next ordinary session of the Commission, unless the question has been previously settled through the diplomatic channel, or unless an agreement has been previously reached to submit the question to arbitration, or unless the matter has been submitted to judicial settlement.

3. In the note No. A 3436, which the German Chargé d'Affaires was so good as to address to me on October 4th, 1934, he stated that the full powers furnished in the name of the Reich signified that the Reich had retained all the rights which appertained to it prior to the reorganisation of Germany, and also had assumed, under Article 2 of the Law of January 30th, 1934, transferring the sovereign rights of the States to the Reich and under Section 1 of the Ordinance of February 2nd, 1934, issued under that law, the sovereign rights, which, up till that time, were possessed by the States of Bavaria and Württemberg as regards representation on international river commissions. I understand that the German Government are of the opinion that, under the Treaty of Versailles and the Statute of the Danube, they are now entitled to appoint two delegates to sit on the International Commission as representatives of the German Reich. It is further stated in Your Excellency's communication of January 15th that the legal position as regards German representation on the International Commission of the Danube is, in principle, not different from the position as regards German representation on the Rhine, Elbe and the Oder.

You further informed me that the German Government proposes to furnish His Majesty's Government with an exhaustive written explanation of its views with regard to this matter, but, before doing so, desired that His Majesty's Government should state their views on the matter generally and in particular with regard to the two following questions, and the reasons on which these views were based :

(1) Do the British Government dispute the right of the German Reich to be represented on the International Danube Commission ?

(2) If not, do the British Government dispute the right of the German Reich to have two delegates on the International Danube Commission, as hitherto, if one of them is not simultaneously designated as the representative of Württemberg and the other as the representative of Bavaria ?

4. In reply to this request, I have the honour to state that the views of His Majesty's Government in the United Kingdom and the reasons therefor are stated in the following paragraphs in what is thought to be sufficient fullness for the present purpose. Naturally, this statement of the position does not, and is not intended to, present an exhaustive statement of all the arguments and legal points which might be invoked.

5. Article 347 of the Treaty of Versailles provides :

“ From the point where the competence of the European Commission ceases, the Danube system referred to in Article 331 shall be placed under the administration of an International Commission composed as follows :

- “ Two representatives of German riparian States ;
- “ One representative of each other riparian State ;
- “ One representative of each non-riparian State represented in the future on the European Commission of the Danube.

“ If certain of these representatives cannot be appointed at the time of the coming into force of the present Treaty, the decisions of the Commission shall nevertheless be valid.”

It will be seen from the text that, unlike the articles dealing with the Commission for the Rhine, Elbe and the Oder, Article 347 proceeds on the basis of according to each State represented one representative and one vote. No attempt is made to allocate a number of delegates or votes in proportion to what might be supposed to be the relative extent and importance of the interests on the Danube of the States represented. At the time when the Treaty was signed, there were two States of the German Reich (Bavaria and Württemberg) whose territory bordered the Danube and, as stated in a note from the German Embassy of June 15th, 1922 (No. A 1200), under the Constitution of the Reich at that time, the administration and control of rivers fell exclusively within the powers of the States, and not of the Reich. Consequently, it was in accord with the principles followed in framing Article 347 that it should provide, as had been done in the Convention of 1856, for the separate representation of Bavaria and Württemberg, States then still possessing a certain individual international status, and these two States were referred to by the words of the article “ two representatives of German riparian States ”. The plurality of German representation can be explained only by the fact that the two German States were treated as separate entities. For the interests on the river of these two States combined, if they were treated as a single unit, were not greater than those of other riparian States, who were given only one representative.

6. Soon after the entry into force of the Treaty and as a result, I understand, of Articles 97 and 171 of the Reich Constitution in force on April 1st, 1921, a change took place in German constitutional law, and a part, though not the whole, of the powers of administration and control over the navigable portions of all the internationalised rivers was transferred from the States to the Government of the Reich, with the result that, for practical reasons alone, it became necessary that the representatives of the German States on the river commissions should be able, as well as representing their States, also to represent the Reich.

7. The question of the German representation on the International Danube Commission was discussed at the Conference, which in the first half of 1921 met at Paris to draw up the Danube Statute. Different views were expressed on the matter, the German delegate explaining and justifying the maintenance of a double German representation on the ground that the two German delegates would form separate delegations representing two different German States (Protocol No. 58, pages 5 and 7). In the result, the discussion not being concluded, Article 8 of the Danube Statute was drawn up, reproducing textually the provision of the peace treaties, and leaving the matter to continue to be governed by the original text.

8. The question was again raised on December 3rd, 1921, at the fifth plenary session of the International Commission of the Danube. The German delegate then explained the new position under German constitutional law and sought the agreement of the Commission to a text which created one German delegation of two members, representing the Reich and Bavaria and Württemberg simultaneously (procès-verbal No. 4, page 70). This proposal was opposed in the Commission and, no agreement being reached, the question was left to be settled by discussion through the diplomatic channel, in particular by the French and German Governments.

9. In 1926, an agreement was reached as a result of the diplomatic discussions. This agreement was adopted on July 4th by a resolution of the International Commission of the Danube (procès-verbaux P. V. 14.1926, June-July, page 219) which reads as follows :

“ *Rules of Procedure of the Commission.*

“ 1. *Appointment of German Delegations.*

“ Article 1 of the Rules determining the procedure of the International Commission of the Danube shall read as follows :

“ The presidency of the International Commission of the Danube is held in turn by the substantive delegates in the alphabetical order of the States which they represent as follows :

- “ Delegate of Austria ;
- “ German delegate for Bavaria ;
- “ Delegate of Bulgaria ;
- “ Delegate of France ;

- “ Delegate of Great Britain ;
- “ Delegate of Hungary ;
- “ Delegate of Italy ;
- “ Delegate of Roumania ;
- “ Delegate of the Kingdom of the Serbs, Croats and Slovenes ;
- “ Delegate of Czechoslovakia ;
- “ German delegate for Württemberg.

“ The German delegation for Bavaria and the German delegation for Württemberg are considered collectively as the representatives of the Reich and the German riparian States.

“ The presidency is held for periods of six months, of which the beginning is fixed on January 1st and July 1st of each year.

“ If the delegate who is called to take the presidency finds himself prevented from accepting that office, it passes to the next delegate in alphabetical order.

“ Where the President is prevented from fulfilling his duties or is absent, the interim presidency is held by one of the substantive delegates, chosen in inverse order to that which regulates the holding of the presidency, beginning with the last President.

“ Where no substantive delegate is in a position to discharge the interim presidency, that office is held by the deputy of the President-in-office, or, failing him, by one of the deputy delegates, chosen in the order indicated in the preceding paragraph.”

It will be seen that the effect of this agreement is to maintain two separate delegations for Bavaria and Württemberg, the two together being also regarded as the collective representation of the Reich and the German States. The maintenance of the two separate delegations is also stressed in the Note No. A.1289 of June 23rd, 1926, in which the German Embassy communicated to His Majesty's Government the formula agreed upon in the diplomatic discussion.

10. Now, as you informed me in your note of October 4th last, a further change has taken place in German constitutional law, with the result that the German States disappear altogether as international entities and the whole of their powers as regards international rivers are transferred to the Reich. His Majesty's Government admit that this event necessitates new arrangements being made with regard to German representation on the International Commission of the Danube. They cannot agree, however, that Germany is entitled, simply on the basis of this change in German municipal law and without the agreement of the other Powers, to accredit to the Commission two delegates with full powers in the name of the Reich only, an entity which as such enjoys no representation on the Commission under the treaties, and thus unilaterally to alter the representation provided for under the treaties and the form of German full powers expressly accepted as the result of a diplomatic agreement in 1926. In His Majesty's Government's opinion, the new arrangements, whatever their nature, must also be agreed to by the Governments represented on the Commission.

11. Moreover, the sole reason for a plurality of German representation on the Commission having been the existence of two German riparian States as separate entities and those States having disappeared, leaving only one German riparian State, the Reich, it appears to His Majesty's Government that it is no longer possible for Germany to claim to have two representatives on the Commission at all. As I have already stated, the principle on which Article 347 proceeds is one representative for each riparian State, and no delegation on this Commission has more than one vote. It seems to His Majesty's Government that the legal position created by recent events leads to one of the two following conclusions :

(a) Under Article 347, the two German riparian States (Bavaria and Württemberg) having disappeared from the international point of view, the special provision for their representation as such is no longer applicable. But Germany can claim one representative for the Reich under the principle of one representative for each riparian State. The same result would appear to be reached by the application of the general principles of State succession.

(b) The disappearance of the two German riparian States as separate entities must be regarded as creating a new situation not envisaged by the Peace Treaty. Germany cannot claim representation for the Reich because the treaties do not provide for it, and consequently the new situation is one which must be settled by agreement, and until such agreement is reached, there can be no German representation on the Commission. His Majesty's Government for their part would readily agree to Germany having one representative on the Commission for the Reich and have little doubt that the other Governments concerned would also agree to such representation.

12. His Majesty's Government have not thought it necessary at present to decide between the two views set out in (a) and (b) above, which, in effect, would lead to the same result. In presenting this explanation of their point of view, His Majesty's Government hope that the German Government will be able to agree with it. But, if this should not be the case and if the German Government should maintain their previous view, it appears to His Majesty's

Government that there is a difference between the parties to the treaties with regard to the interpretation and application of Article 347, which can most suitably be referred to the Permanent Court of International Justice by special agreement (*compromis*). His Majesty's Government would be ready to collaborate with the German Government and the other Governments interested in drawing up the necessary text. In order to expedite this matter, which is urgent, since the "*modus vivendi*" reached in the International Commission of the Danube expires in June next, His Majesty's Government will prepare and submit shortly a draft agreement for reference to the Permanent Court of International Justice. In default of acceptance of this procedure, the case seems to be one governed by Article 376 of the Treaty of Versailles and by the resolution of the Assembly of December 9th, 1920.

13. His Majesty's Government cannot agree that the legal position is the same with regard to German representation on the International Commission of the Danube as on the Commissions of the Rhine, Elbe and Oder. As regards the Rhine and the Elbe, it will be seen from the text of Articles 340 and 355 of the Treaty of Versailles that :

(a) On these commissions, several States are accorded more than one representative, the relative importance of their interests on the river being the basis of the allocation ;

(b) A paragraph of each article provides that " each delegation shall have the right to record a number of votes equal to the number of representatives allocated to it ", and consequently the " four representatives of German States " are regarded under these articles (unlike the two representatives of two German riparian States under Article 347) as forming one delegation though representing different States. Moreover, as a result of the changes in German constitutional law of 1921 referred to in paragraph 6 above, an agreement was reached in 1924 through the diplomatic channel, to the effect that the German members of these commissions should constitute one delegation for the German Reich and the riparian States, each of the delegates being specially designated to represent a particular one of these States, an agreement whose effect is different from that reached in 1926 as regards the Danube.

14. The recent change under German constitutional law no doubt requires a further change in the full powers given to German representatives on these commissions. But in the circumstances, it was quite natural that the Elbe and Rhine Commissions should pass resolutions expressly accepting the new full powers for the German members drawn up in the name of the Reich only, since the maintenance of four German representatives did not depend merely on the existence of separate German States but is justified by the extent of the German interests on these rivers, and, as stated above, this principle was that adopted in the treaties as the basis of allocation of representation on these river commissions. On the Oder, under Article 341, one single German State—Prussia—has three representatives and, on the disappearance of Prussia as an international entity and the transference of the powers of that State to the Reich, it is natural that the Oder Commission should agree to accept for the future three German representatives holding full powers in the name of the Reich.

15. A copy of this note is being communicated to all the other Governments represented on the International Commission of the Danube.

(Signed) E. H. CARR.

3. " AIDE-MÉMOIRE " LEFT AT THE FOREIGN OFFICE BY THE GERMAN EMBASSY,
ON APRIL 24TH, 1935.

[Translation.]

I.

The German Government, having carefully examined the communications which it has received from the Austrian, United Kingdom, French, Italian, Roumanian, Czechoslovak and Yugoslav Governments concerning the question of German representation on the International Commission of the Danube, understands that the United Kingdom, French and Czechoslovak Governments are of opinion that the German Reich, as such, has not really the right to be represented on the International Commission of the Danube. Taking into account this conception of principle, the United Kingdom Government has embodied in the terms of reference which it has proposed for the settlement of the differences of opinion by the Permanent Court of International Justice question 2—namely, whether, if the Court gave a negative reply to question 1 (two votes), the German Reich would have the right to a representative on the said Commission. In the event of a negative reply to this question, Germany would be obliged to open negotiations for determining its representation on the International Commission of the Danube.

Moreover, the Italian and Yugoslav Governments have not contested Germany's right to be represented on the International Commission of the Danube ; but they do not recognise her right to have more than one vote, although she has had two votes hitherto. It appears that the Roumanian Government is also of this opinion, whereas the United Kingdom, French and Czechoslovak Governments only take this view if their first argument should prove not to be justified. Finally, the Austrian Government has expressed its opinion that the appointment of a German delegation in which the " German riparian States " are completely ignored might give rise to objections.

The German Government, which has also taken into consideration the declarations made on this subject by the Bulgarian and Hungarian delegations at the meeting of the International Commission of the Danube on December 13th, 1934, considers that, at the present moment, even if the differences of opinion existing between the other Governments are left on one side, the question is not ripe for arbitration, in particular, because the German Government has not yet had an opportunity of setting forth in detail to the other Governments its juridical point of view. For this reason, without attempting to exhaust the problem, it has given, in the appendix, a summary of some important arguments, hoping that these will suffice to induce the other Governments to re-examine the opinions which they have already expressed and to settle the dispute definitively.

II.

Already at the time of the discussions which took place in Vienna in December 1934, the German Government had stated its views that the first question to be discussed is whether or not the German Government, as such, has really a right to be represented on the International Commission of the Danube. It is for this reason that the German Government has expressly asked this question of all the Governments concerned. Having examined the replies given, the German Government confesses to a certain surprise that some of the Powers contest this right, even after reflection, although the same Powers made no objection to this same right in regard to the other rivers. The German Government can, therefore, only take note of this point of view. It declares that, in its opinion, the juridical situation with regard to the International Commission of the Danube does not differ from the situation in regard to the other international river commissions at present in existence. Consequently, it does not consider that it is either admissible or advisable to submit the problem concerning the International Commission of the Danube separately to the Permanent Court of International Justice at The Hague or to any other arbitral tribunal. Further, it wishes to state at this point that it is prepared to enter into discussions of principle concerning the future collaboration of all the countries concerned with regard to the Danube, such as are already in progress concerning the Rhine and have been proposed by Germany for the Elbe. Naturally such discussions concerning the Danube should deal with the organisation of collaboration in regard to the whole course of the river as far as the Black Sea, the ground covered by the Statute of the Danube; finally, the solution to be adopted should form part of the future settlement for all the rivers traversing German territory.

III.

The German Government desires to state that it is prepared, pending the result of the negotiations proposed under II, to accept in the International Commission of the Danube, until a further decision has been reached, a *modus vivendi* on the basis of the *status quo*. It must insist, however, that the question of the presidency be also settled in June, at any rate provisionally, for the duration of the *modus vivendi*. It would be glad if the delegate of your Government could be informed of this declaration.

IV.

The present *aide-mémoire* has been submitted at the same time to all the Governments represented on the International Commission of the Danube.

Appendix.

[*Translation.*]

1. In Article 8 of the Danube Convention signed on July 23rd, 1921, it is provided that, in accordance with the provisions of the peace treaties, the International Commission of the Danube is to be composed of two representatives of the German riparian States, one representative of each of the other riparian States, and one representative of each of the non-riparian States represented on the European Commission of the Danube.

2. As regards the German representatives, the rules laid down by the peace treaties in regard to the International Commission of the Danube are based upon the same principles as those applicable to the other international river commissions. The Treaty of Versailles also designates the German representatives on the Elbe and Rhine Commissions (Articles 340 and 355) as representatives of the German riparian States, and allots three representatives to Prussia on the Oder Commission (Article 341).

3. The number of representatives thus allotted to the German riparian States is not determined by the number of the States themselves, as in the case of the Elbe there are four German votes corresponding to five German riparian States; in the case of the Oder, Prussia, which is the only German riparian State, possesses three votes. Similarly, there can be no doubt that, were a German riparian State to be subdivided, the number of votes would not be increased. The German Reich, which, since 1921, has been the owner, in its own right, of the Danube navigable waterway below Kelheim, has not received any additional votes. The representation accorded to Germany has, therefore, the character of a joint representation of

the German riparian States, a conception which is clearly substantiated in the cases of the Rhine and Danube by the terms of Articles 347 and 355, particularly in the English text ("German riparian States" and not "the German riparian States"). Similarly, the German representation on the International Commission of the Danube was originally described as "German delegation for Bavaria and Württemberg" (Minutes of September 15th, 1920).

4. The only difference in the organisation of the various river commissions is that, in the case of the Rhine and the Elbe, the Treaty of Versailles expressly provides that, whatever the number of members present, each delegation shall have the right to record a number of votes equal to the number of representatives allotted to it. There is no such provision in regard to the Danube and the Oder. In their cases, two and three plenipotentiary representatives must be present, respectively, for the full number of votes to be recorded.

5. The Treaty of Versailles and the other peace treaties give no indication as to the principle taken as a basis in fixing the voting strength of the German riparian States in relation to that of the other States. It is frequently the case that non-riparian States have the same voting rights as riparian States, or that the voting rights of the riparian States with preponderant interests in the waterway in question are no greater than those of riparian States whose interests are much less vital. There is indeed no indication that any definite principle was followed in determining the ratio between the total number of votes allotted to riparian States and non-riparian States respectively on the international commissions. In the case of the Danube, moreover, the system is unusually complicated on account of the interdependence between the membership of the European Commission and the International Commission respectively. Taking this interdependence into account, Germany would not in the least appear to enjoy a particularly privileged position with regard to the Danube, and the same remark applies to the other international commissions also. While, indeed, the three non-riparian States represented on the Danube Commission are entitled to concern themselves with the interests of shipping over the whole length of the Danube waterway, Germany, though a riparian State with extensive maritime shipping interests, has provisionally lost this right in regard to the maritime Danube and has only retained her two votes for the purpose of limited co-operation in regard to the upper Danube. If, however, some answer must be found to the question whether any particular consideration was followed in fixing the voting strength on the river commissions, it might perhaps be said that the allocation of votes as regards the Rhine and the Danube was based upon the number of German votes under the pre-war regime—from every other point of view, however, and more particularly with regard to the other States, the bases of allocation were totally different. It should, moreover, be pointed out that any change in the allocation of votes, in so far as the riparian States are concerned, might constitute a serious modification of the organisation of the international river commissions, which could not be introduced without the assent of all those concerned.

6. The Treaty of Versailles only came into force on January 10th, 1920—that is to say, after the entry into force of the Weimar Constitution of August 11th, 1919. Under the provisions of that Constitution, there was never any reason to doubt that, from the international point of view, the German Reich was the only responsible authority invested with rights and obligations in connection with the international river commissions. In accordance with this conception, the full powers of the German representatives have always been conferred by the President of the Reich. The fact that not only the Reich but also the German States have been active in various ways on the river commissions was due to the terms of the Treaty of Versailles and to the relatively high degree of independence allowed the German States in the matter of the administration of navigable waterways under the old domestic legislation of Germany, which still applied when the Treaty came into force and which was in conformity with the pre-war position. This was particularly the case with regard to the Danube, the administration of which above Kelheim—that is to say, over the greater part of the course of this river, in Germany—was vested in the German States and remained so after the new settlement introduced in 1921. Even apart from these special conditions, the States retained after April 1st, 1921 (which was the date of the entry into force of the measures adopted in virtue of Articles 97 and 171 of the Constitution of Weimar), the administration of harbours and the right of co-operation in the settlement of questions relating to the cultivation of land in the districts concerned, and to river conservancy, more particularly with regard to the maintenance of the natural flow of the stream and the upkeep of dykes, the disposal of waste water, drinking-water supplies, the use of water power, etc.

Such being the legal position, the German Government then in office agreed to the country's representation on the river commissions being exercised, in all respects, as joint representation of the Reich and the German States, even though it was the central Government which was constitutionally responsible for the national interests in matters of foreign policy and though the most important technical functions in the matter of river administration had been transferred to the Reich. In regard to the Danube, Article 35, paragraph 2, of the Danube Convention was of particular importance, since it deals with the question of the presidency. Furthermore, the fact that, under Article 349 of the Treaty of Versailles, it is not the riparian States but Germany which is required to accept the Danube regime is clear proof that, even on the basis of the Treaty of Versailles, it was Germany which was invested with the rights and obligations arising out of the Convention; unlike the Elbe Convention, the Danube Convention was signed exclusively on behalf of the German Reich and not on behalf of the riparian States.

7. As a result of the Reich Law of January 30th, 1934, for the transfer of the sovereignty of the German States to the Reich, representation of the former German States as such on the

international river commissions has, in fact, been rendered impossible, as these States are no longer subjects of international law, and no longer enjoy rights of representation in foreign affairs. From this point of view, also, the legal position in regard to the Danube is no different from that in regard to the other German rivers, and that is why the terms of the circular note of October 1934 referred to all the river commissions and not merely to the Danube Commission. For the purposes of these commissions, it is henceforward impossible that, either as regards the appointment of delegates or the terms of their full powers, the former German riparian States should act as if they enjoyed independent status. It should, moreover, be pointed out that these riparian States have been divested of a large part of their former rights with regard to other branches of internal administration, and furthermore that the details of the future internal reorganisation of the Reich have not yet been settled.

8. At this point, it may be appropriate to deal with the following question: Does it follow, from the circumstances described in paragraph 7 above, that the Reich no longer enjoys, or does not enjoy to the same extent, the rights which it has hitherto possessed on the international river commissions? On the Central Commission for the Navigation of the Rhine and the International Commission of the Elbe, the fact that the new German full powers have been recognised as valid and in good and due form shows that this question has been decided in the sense that the Reich can exercise the right to representation on the river commissions without further formality. The phrase added by both commissions: "the present decision shall not affect such decisions as the Governments may take in the general matter of representation on all river commissions" cannot be interpreted as a reservation. The International Commission of the Oder has so far come to no decision. When the vote on the validity of the new full powers was taken on the International Commission of the Danube, the necessary quorum had not been attained. While the German Government cannot recognise any difference in the legal position regarding the various river commissions, it proposes in the following paragraphs to examine all the arguments advanced by the various Governments in support of the contention that the German representatives on the International Commission of the Danube are no longer entitled to two votes.

9. Several Governments have maintained that the Danube regime is based upon the principle of "one State one vote". In point of fact, however, the Treaty of Versailles does not speak of "one representative of each German riparian State", but of "two representatives of German riparian States". The relevant provision is therefore fully in harmony with the manner in which four votes were allotted to the German riparian States on the Rhine and the Elbe and three votes to Prussia, which is the only German riparian State on the Oder. It has been explained in paragraph 5 that if the Danube is considered as a whole, this settlement does not in any way place Germany in a specially privileged position. Furthermore, the fact that both representatives must be present for the two votes to be recorded does not in the least alter the collective character of the representation. This is also true of the Oder, where there is only one German riparian State.

10. Certain Governments appear to be of the opinion that Germany is precluded from claiming two votes for the Reich on the Commission in question by a diplomatic agreement concluded in 1926 with regard to the appointment of the German representatives and to the question of the presidency. This view is without foundation, the position being, on the contrary, as follows: in a note addressed in June 1922 to all the Powers represented on the different river commissions, the German Government drew attention to the fact that, in so far as they were navigable, the internationalised rivers had been transferred, as from January 1st, 1921, to the ownership and administration of the Reich, and would henceforward be under the control of the *Reichswasserstrassenverwaltung*. This development in German internal constitutional law was bound to affect Germany's representation on the international river commissions. The right to make binding declarations as regards the administration of the internationalised rivers, or to assume obligations, would henceforward no longer be exclusively vested in the delegates of a German riparian State.

"Having regard to the provisions of the Treaty of Peace and to the stipulations of the Constitution of the German Reich and of German public law and with a view to ensuring the efficient working of the international river commissions, 'the Reich and the riparian States concerned' shall be represented on the river commissions as a single entity. The German delegates must be the representatives of that entity. Any representative *may* be appointed to the commission as the special representative of a particular riparian State in matters peculiar to that State. In accordance with the Treaty of Peace, the number of votes remains unchanged. . . . On the Rhine and the Elbe, this system is already in force for all practical purposes, and has been a distinct success. . . . It is clear that the question at issue must be uniformly solved, as the provisions of the treaty of Versailles contained in Part XII, Section II, Chapters III and IV (Articles 331 to 362), with regard to the internationalisation of the Danube, the Elbe, the Oder and the Rhine, are based upon uniform and common principles. Such a solution is also indispensable from the point of view of internal public law.

"There would therefore appear to be every ground for the presumption that it was not for any single river commission to settle the question of German representation on its own authority, but that a uniform settlement should have been worked out in respect of all the rivers concerned."

The German point of view as set out above was embodied in a proposal to appoint the German representatives as a joint delegation representing the Reich and the riparian States,

which was adopted, in the first place, by the United Kingdom and Italian Governments in respect of all the river commissions. In December 1924, as a result of further representations, the German point of view was also accepted by the French Government in respect of the Rhine, the Elbe and the Oder. It further made known its willingness to adopt a similar attitude in the case of the Danube, provided always that the presidency were only exercised once by the German delegation. While assenting to the German proposal, the Czechoslovak and Roumanian Governments expressed doubts with regard to the presidency, the last-named Government further expressly stating that in this question also it would be prepared to concur in a unanimous vote of the other parties concerned accepting the German point of view. In the summer of 1926, agreement was reached by the International Commission of the Danube on the present text of Article 1 of the Regulations on the basis of the following formula (Article 2) :

“ The German delegation for Bavaria and the German delegation for Württemberg shall be regarded as constituting the collective representation of the Reich and the German States.”

11. For the purpose of the present problem, there is no need to go into the question of the legal force of the various documents exchanged in the course of this discussion. In any event, as has already been stated, it is clear from the course of these negotiations that they did not refer to the question of votes, but rather to the matter of the appointment of the German representatives, and in the case of the Danube to the question of the presidency. It should be pointed out that, in the opinion of the German Government, the question of the presidency is not necessarily governed by the settlement arrived at in regard to voting strength on the International Commission of the Danube. The question of the presidency is rather a matter of convenience and courtesy within the general limits of the Convention, and might in due course be settled by special agreement. Having regard, however, to the constitutional law at present in force in Germany, the question of the appointment of the German representatives on the International Commission of the Danube cannot be more arbitrarily settled than the question of German representation on the Rhine and Elbe Commissions, in the case of which the appointment of the German commissioner and delegate respectively was duly accepted.

12. Nor can reference to the principles of the succession of States—principles which are, moreover, strongly contested—constitute a refutation of the German argument. This is not a case of a new State claiming rights which have hitherto belonged to its members ; the point at issue here is that these members, from the point of view of constitutional law, are no longer able to take part in the exercise of such of these rights as even in the past have always, from the international point of view, been entirely within the competence of the State as a whole and were exercised by the latter.

13. The Roumanian Government's view that the representatives of the Reich on the river commissions of the Rhine, Elbe and Oder form in each case one delegation, whereas in the Danube Commission, by virtue of an agreement concluded in 1926, the existence of two delegations united in a collective representation has hitherto been accepted, is perfectly correct. But this difference is of no importance for the question of the right of vote ; for that right is vested in the two representatives of the riparian States of the peace treaties and the Danube Convention. Further, if the Roumanian Government is of opinion that the representation of Germany in respect of the Rhine, Elbe and Oder represents “ interests ”, it should be pointed out that no provision is made in the treaties for the representation of interests ; nor would that correspond with international usage. The only reason why, in 1926, it was agreed to insert a special formula in the Regulations (§ 1, paragraph 2), was the consideration that, on the basis of the formula adopted for the Rhine and the Elbe, German wishes concerning the question of the presidency could not have been satisfied in view of the provision of Article 35, paragraph 2, of the Danube Convention.

14. It is an error to believe that, in consequence of the German circular note of October 1934 concerning Germany's representation, new agreements were concluded by the Commissions of the Rhine and the Elbe. In fact, in these Commissions, the full powers of the German delegates were unreservedly recognised to be valid ; in the Commission of the Elbe, the German delegate abstaining, and in the Rhine Commission, unanimously.

15. The French Government, in its verbal note of October 26th, 1934, drew a parallel between the present state of affairs in the International Commission of the Danube and that existing in 1866 in the Commission of the Rhine after the annexation of Nassau by Prussia. This comparison is not conclusive. In international law, the question of annexation has always received special treatment. Further, in this case of Prussia-Nassau, one riparian State had been incorporated in another riparian State and there was no question of the relation between the riparian State and the State as a whole. Finally, it should be pointed out that the former State of Prussia, owing to the fact that in the Rhine Commission every resolution had to be approved, had no reason for requesting an increase in the number of its votes on the strength of its annexation of Nassau.

16. The French Government, in its note, recalls certain reservations which it claims to have made in the course of a previous exchange of letters relating to this affair, regarding Germany's right to be represented on the commissions. The German Government feels that it may confine itself to observing that the full powers given to the German delegates by the German Reich were not contested by France either, after the French Government had accepted the German proposals of 1922.

17. Finally, the French Government mentions a memorandum of April 11th, 1926, alleging that in it the Minister Herr Seeliger accepted this point of view. In reality, this memorandum did not deal with the question of Germany's right of vote, but only with the question of the designation of the German representation and with that of the presidency.

The whole sentence, an extract of which is quoted in the French note of October 1st, 1934, was worded as follows: "Considering, however, that it would always be Bavaria and Württemberg which would be represented on the International Commission of the Danube, the presidency should nevertheless be exercised both by the German delegation on behalf of Bavaria and by the German delegation on behalf of Württemberg". The next sentence runs as follows: "The German Government would have wished therefore to see the question of the International Commission of the Danube settled in the same way as that of the other river commissions". It follows that Herr Seeliger also took the view that the juridical situation in the Danube Commission does not differ from that in the other river commissions.

18. The German Government can only adhere to the opinion expressed by the Austrian Government, that, on the International Commission of the Danube also, German representation originated in a collective representation of all the riparian States (countries). In view of the completely changed conditions which have supervened, it seems inevitable from the point of view of law that this representation should be considered in the same way as in the case of the other river commissions—*i.e.*, exclusively as the representation of Germany.

19. The French Government has more than once characterised as contrary to equity the fact that Germany claims the maintenance of her present representation also on the International Commission of the Danube. The German Government can only emphasise once more that on the Danube the situation of Germany was much more favourable before the war than after Versailles. Germany cannot admit that it is equitable for France, a non-riparian State which has only infinitesimal navigation interests and which has no obligations with regard to upkeep, to be represented on both commissions, whereas Germany, a riparian State, is not.

20. The German Government does not wish to contest the formal right of the States represented on the International Commission of the Danube to examine independently the question of Germany's future representation and, if necessary, to raise the question whether an amendment of the Convention is required. Nevertheless, as regards the result of this examination, the German Government feels that it must stress the importance of the fact that, for the Rhine and the Elbe, four of the Powers represented on the Commission have conceded to the German Reich the same right of vote as the Reich and the German riparian States have hitherto enjoyed, although the juridical situation is not different. Moreover, the German Government considers that its request for the maintenance of the two votes which it has had for the last fifteen years is well founded both in law and in equity.

4. NOTE ADDRESSED TO THE GERMAN AMBASSADOR IN REPLY TO THE "AIDE-MÉMOIRE".

Foreign Office, London,

May 30th, 1935.

Your Excellency,

His Majesty's Government in the United Kingdom have studied with the greatest care the *aide-mémoire* from the German Embassy, No. S 423/35, which was left at this department on April 24th last, regarding German representation on the International Commission of the Danube, and I have the honour to make to Your Excellency the following observations on it.

2. It appears to His Majesty's Government that there is no dispute with regard to German representation on the International Commissions of the Elbe and Rhine between the Governments represented on those Commissions; and that so far as the International Commission of the Oder is concerned, there is every reason to suppose that the matter will be settled in a similar manner. As regards the International Commission of the Danube, however, the position is different, seeing that there is a dispute between the Governments represented on that Commission. The German Government, on the one hand, claims that it is entitled, under Article 347 of the Treaty of Versailles, to appoint two representatives of the Reich to the Commission, whereas a majority of the other Governments represented contest this view, some of them maintaining that the Reich is entitled to one representative only, and others maintaining *either* that the Reich is entitled to one representative only *or* that a new agreement is necessary to provide for Reich representation, without expressing any decision between these two alternatives, seeing that the latter would lead to the same result, as there seems no reason to doubt that all the Governments represented are willing to make an agreement providing for one representative of the Reich.

3. As regards the International Commission of the Danube, therefore, the view of His Majesty's Government is that there is a legal dispute turning on the interpretation of Article 347 of the Treaty of Versailles as regards German representation in the existing circumstances. A careful study of the German arguments in favour of the view that Germany is entitled to two representatives for the Reich has failed to convince His Majesty's Government that this claim is well founded. Unless, therefore, the question can be settled at the next meeting of the International Commission of the Danube, it appears necessary either that it should be referred immediately to the Permanent Court of International Justice, as proposed by His

Majesty's Government in the draft special Agreement which was communicated to Your Excellency in my note No. R 1326/170/96 of March 14th last, or that it should be settled in accordance with the procedure laid down in Article 376 of the Treaty of Versailles. If either of these procedures is instituted during the next meeting of the Commission, the *modus vivendi*, which was adopted by the Commission at its meeting last December, will continue automatically under its own terms to operate until a decision is reached. His Majesty's Government think it unlikely that there would be any agreement to continue it under any other conditions.

4. The immediate question, in the view of His Majesty's Government, is a legal dispute as to the effect in present circumstances of the treaty provisions relating to the International Commission of the Danube, and the immediate necessity is to obtain agreement, or an authoritative decision, on the purely legal question. His Majesty's Government, for their part, can see no reason for connecting this purely legal question with any other discussions with regard to the regime of the Rhine, the Elbe, or the European Commission of the Danube. There is, as I have already had occasion to state, no legal dispute with regard to German representation on those commissions. It is true that the German Government maintain that the case for German representation on the International Commission of the Danube is governed by the same principle as that applicable to German representation on the Rhine and the Elbe Commissions, and that, consequently, the Governments concerned cannot consistently refuse to accept the German view with regard to the Danube, when they have accepted it with regard to the Rhine and the Elbe. But this fact does not, in the opinion of His Majesty's Government, produce the result that there is any dispute as regards the Rhine and the Elbe. His Majesty's Government have, moreover, in paragraphs 5, 13 and 14 of my note to you (No. R 435/170/96) of February 11th last, given their reasons for distinguishing these cases from that of the International Commission of the Danube; and it would be open to the German Government, if they are not convinced of the soundness of these arguments, to make use of this alleged inconsistency in arguing their case before the Permanent Court of International Justice or before the jurisdictions which are competent under Article 376 of the Treaty of Versailles.

For the Secretary of State :
(Signed) E. H. CARR.

(c) LETTER AND MEMORANDUM ADDRESSED TO THE SECRETARY-GENERAL
OF THE LEAGUE OF NATIONS BY THE FRENCH GOVERNMENT
ON JUNE 5TH, 1935.

[C.C.T.590.]

June 19th, 1935.

[Translation.]

In accordance with Article 376 of the Treaty of Versailles and the Resolution of the League of Nations Assembly of December 9th, 1920, I have the honour to communicate to you for transmission to the Advisory and Technical Committee for Communications and Transit the enclosed memorandum concerning a dispute which has arisen with regard to German representation on the International Commission of the Danube.

The French Government reserve the right, if necessary, to present to the Committee at a later date a further memorandum setting out their views on the matter.

For the Minister for Foreign Affairs :
(Signed) P. BARGETON,
Minister Plenipotentiary,
Director of Political and Commercial Affairs.

MEMORANDUM.

Article 347 of the Treaty of Versailles and the corresponding articles of the other peace treaties provide that :

“ From the point where the competence of the European Commission ceases, the Danube system referred to in Article 331 shall be placed under the administration of an International Commission composed as follows :

“ Two representatives of German riparian States ;
“ One representative of each other riparian State ;
“ One representative of each non-riparian State represented in the future on the European Commission of the Danube.

“ If certain of these representatives cannot be appointed at the time of the coming into force of the present Treaty, the decisions of the Commission shall nevertheless be valid.”

Article 8 of the Statute of the Danube provides that :

[Translation.]

“ The International Commission is composed, in accordance with Articles 347 of the Treaty of Versailles, 302 of the Treaty of St. Germain, 230 of the Treaty of Neuilly, and

286 of the Treaty of Trianon, of two representatives of the German riparian States, one representative of each of the other riparian States and one representative of each of the non-riparian States which are, or which may be in future, represented on the European Commission of the Danube."

At the time when the Treaty of Versailles was signed, the administration of rivers belonged under the German constitution exclusively to the German States, of which two, Bavaria and Württemberg, were riparian States of the River Danube. On April 1st, 1931, shortly after the Treaty of Versailles entered into force, in execution of Articles 97 and 171 of the German Constitution, a part, but not the whole, of the administrative powers over the waterways which are navigable within the meaning of that term in German law (which does not comprise the whole extent of the international waterways contemplated by the treaties) was transferred from the German States to the Reich. As the result of this transference, it became necessary for practical reasons that the representatives of the German States on the river commissions should be in a position to represent the Reich as well as their own States.

After discussions, which took place both in the International Commission of the Danube and through the diplomatic channel, an agreement was reached with regard to the German representation on the Commission. This agreement was embodied in the resolution of the Commission of June 26th, 1926, which runs as follows :

[*Translation.*]

" The presidency of the International Commission of the Danube is held in turn by the substantive delegates in the alphabetical order of the States which they represent, as follows :

- " Delegate of Austria ;
- " German delegate for Bavaria ;
- " Delegate of Bulgaria ;
- " Delegate of France ;
- " Delegate of Great Britain ;
- " Delegate of Hungary ;
- " Delegate of Italy ;
- " Delegate of Roumania ;
- " Delegate of the Kingdom of the Serbs, Croats and Slovenes ;
- " Delegate of Czechoslovakia ;
- " German delegate for Württemberg.

" The German delegation for Bavaria and the German delegation for Württemberg are considered collectively as the representatives of the Reich and the German riparian States.

" The presidency is held for periods of six months, of which the beginning is fixed on January 1st and July 1st of each year.

" If the delegate who is called to take the presidency finds himself prevented from accepting that office, it passes to the next delegate in alphabetical order.

" Where the President is prevented from fulfilling his duties or is absent, the interim presidency is held by one of the substantive delegates, chosen in inverse order to that which regulates the holding of the presidency, beginning with the last President.

" Where no substantive delegate is in a position to discharge the interim presidency, that office is held by the deputy of the President-in-office, or, failing him, by one of the deputy delegates, chosen in the order indicated in the preceding paragraph."

Following further changes in the German Constitution, the Reich, in execution of Article 2 of the Law of January 30th, 1934, and of the Order of February 2nd, 1934, assumed the sovereign powers of the German States in all that concerns representation on the international river commissions. In consequence, the Reich Government appointed two representatives on the International Commission of the Danube, furnished with full powers issued in the name of the Reich alone, and maintained that, under the Treaty of Versailles and the Statute of the Danube, the Reich was entitled to be represented on this Commission by these two delegates, each possessing a vote.

At the Commission's session of December 1934, the question whether the two German representatives, furnished with the full powers in question, were entitled to take their places on the Commission under the provisions of the Statute of the Danube was put to the vote. No quorum could, however, be obtained, and the Commission therefore found itself unable to take any decision on this question. In these circumstances, the Commission decided (the number of votes necessary to provide a quorum having been obtained on this occasion) that, in the absence of a resolution recognising the validity of the full powers in question, the German representatives could only take their places on the Commission and vote by virtue of a special agreement. A resolution so stating the legal position and at the same time approving a *modus vivendi* regarding the German representation was adopted in the following terms :

[*Translation.*]

" The Commission,

" Taking note that no quorum could be obtained for a vote on the question whether the full powers of Herr Martius, Herr Sauter, Herr Baur and Herr Greuling were in conformity with the Statute of Danube ;

“ Taking note that these full powers are thus not recognised, and that, in consequence, the said representatives can only take their places and vote by virtue of a special agreement ;

“ Taking into consideration the proposal for arbitration or judicial decision formulated by the delegate of Great Britain and the possibility of settling the question by other means ;

“ Desiring to make possible meanwhile the collaboration in its work of the German representatives, their deputies and assistant :

“ Approves the following *modus vivendi*, which in no way prejudices the questions of principle relating to the juridical position of the said representatives :

“ *Modus vivendi*.

“ 1. *Designation*.—The German representatives (delegates) shall be designated during sessions of the Commissions by this name alone or by their personal name.

“ The Minutes shall bear as indication :

| | | |
|--|---|-------------------------------------|
| “ The German representatives (delegates) ¹ | { | Dr. Martius, substantive delegate ; |
| | | M. Baur, deputy delegate ; |
| | | Dr. Sauter, substantive delegate ; |
| | | M. Greuling, deputy delegate ; |
| | | M. von Heinz, assistant delegate. |

“ 2. *Voting*.—Each German delegate may vote ; in case of absence, he can be replaced by his deputy. In the case of the absence of one of the substantive delegates and of his deputy, neither the other substantive delegate nor his deputy shall vote in their place.

“ In the Executive Committee, the German assistant delegate shall only possess one vote as hitherto.

“ 3. *Presidency*.—This question does not in fact arise ; if necessary, it would be considered during the extraordinary session contemplated by the article ‘ Duration ’ below.

“ 4. *Contribution*.—There will be two contributions.

“ 5. *Duration*.—The present *modus vivendi* will remain in force until the beginning of the ordinary session of June 1935, or until a settlement of the question has been arrived at, if a settlement is reached before that date.

“ It is nevertheless understood that, if, before the expiration of the said period, either an agreement is reached for reference to arbitration or the affair is submitted to a judicial decision, the *modus vivendi* shall remain in force until the close of whichever procedure is adopted.

“ Except in the case of a settlement of the affair through the diplomatic channel, an extraordinary session will be convoked at Vienna eight days before the opening of the ordinary session, in order to examine the position.

“ The delegates undertake to refer the question to their Governments, in order that the latter may examine the expediency of settling it through the diplomatic channel, or by arbitration, or by any other means, drawing their attention to the urgency of a definite settlement of the matter.

* * *

“ This *modus vivendi* to be communicated by letter to the German representatives, and the latter to be requested to communicate, also by letter, whether they accept it.”

By virtue of this resolution, two representatives of the Reich are enabled to take their places and to participate in the deliberations of the Commission until the ordinary session which is to be held in June 1935, and in the event of proceedings having been instituted for the judicial settlement of the question, until the close of these proceedings. It appears that the Commission would consider the affair as having been submitted to “ judicial decision ” from such time as the organ of conciliation contemplated by the resolution of the Assembly of the League of Nations of December 9th, 1920, in application of Article 376 of the Treaty of Versailles, should have been seized of it, this conciliation procedure being, in fact, a necessary preliminary to the “ judicial decision ” of the dispute by the Permanent Court of International Justice.

It has proved impossible to reach any agreement, either through the diplomatic channel or as the result of further discussion in the Commission. It appears that the dispute which has thus arisen turns exclusively on the interpretation and application of Article 347 of the Treaty of Versailles in present circumstances. The Advisory and Technical Committee will no doubt recognise that this dispute can only be settled by the solution of the questions of law at issue, either by means of an agreement or by a judicial decision.

The Treaty provided that there should be two representatives of the German riparian States in the circumstances indicated in paragraph 2 above. The two former German riparian States have now completely ceased to exist as entities possessing international personality. Their powers with regard to the international waterways have been transferred under the

¹ Provisional designation (see resolution of December 13th, 1934).

German Constitution to the Reich. In consequence, there is now only one single German riparian State on the Danube—namely, the Reich. The question at issue is whether the Reich Government is entitled to two representatives on the International Commission of the Danube, or to one representative on it, or whether, since the treaties did not provide for any representation of the Reich, and the two German riparian States have disappeared, a new diplomatic agreement is necessary to settle the German representation on the Commission.

(d) LETTER, ACCOMPANIED BY SEVEN ANNEXES, ADDRESSED TO THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE FRENCH GOVERNMENT ON OCTOBER 24TH, 1935.

[C.C.T.590(a).]

November 1st, 1935.

[*Translation.*]

In communicating to you on June 5th last, for the information of the Advisory and Technical Committee for Communications and Transit, a memorandum concerning the dispute which has arisen with regard to German representation on the International Commission of the Danube, I reserved the right to present at a later date a further note setting out the French Government's views on the matter.

Availing myself of this right, I have the honour to send you herewith, for transmission to the Advisory and Technical Committee for Communications and Transit, as a supplement to the French memorandum of June 5th :

(1) The German notes of October 4th and November 20th, 1934, and of January 7th, 1935 ;

(2) The French replies of October 26th and December 1st, 1934, and of February 15th and May 27th, 1935.

The last of these replies refers to a Memorandum sent by the German Government on April 24th to all the Powers concerned. Its text having already been transmitted to you by the Government of the United Kingdom in its letter of July 24th (Annex 6(b)), I have thought it superfluous to attach it to the present communication.

For the Prime Minister and Minister for Foreign Affairs :

(Signed) MASSIGLI,

Minister Plenipotentiary,

Director of Political and Commercial Affairs.

NOTE FROM THE GERMAN EMBASSY IN PARIS TO THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED OCTOBER 4TH, 1934.

[*Translation.*]

The German Embassy in Paris is directed to communicate to the Ministry for Foreign Affairs the following :

The Law regarding the Reorganisation of the Reich, dated January 30th, 1934, lays down, in Article 2 :

“Die Hoheitsrechte der Länder gehen auf das Reich über”. (The rights of sovereignty of the States are transferred to the Reich.)

On the basis of this Law and of Article 1 of the first Ordinance published in execution of this Law concerning the Reorganisation of the Reich, dated February 2nd, 1934, the Government of the Reich has informed the competent Ministries of the German States that the Reich is availing itself of its right to assume all the rights of sovereignty of the Reich and of the individual States in connection with the international river commissions.

Thus, all the rights possessed by the German States in virtue of the Treaty of Versailles and of the different river Conventions have passed to the German Reich, as a riparian State of the internationalised rivers.

The full powers of the German representatives on the river commissions which no longer correspond to this regime will be replaced by others, delivered exclusively in the name of the German Reich. A detailed communication on this subject will in due course be transmitted to the river commissions by the chief of the German delegations.

The Government of the French Republic is requested to notify its representatives on the river commissions of this fact.

NOTE FROM THE GERMAN EMBASSY IN PARIS TO THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED NOVEMBER 20TH, 1934.

[*Translation.*]

The German Embassy is directed by its Government to reply to the verbal note, dated October 26th, concerning the German representation on the international river commissions, as follows :

I. The German Embassy's verbal note, dated October 4th last, merely contains a notification of the changes involved, in the German Government's opinion, by the reorganisation

of the German State law in the German representation on the international river commissions. This verbal note has been transmitted to all the States represented on the river commissions, with the request that they should inform their plenipotentiaries on the commissions of the contents of the verbal note. The German Government did not intend to enter into a preliminary discussion with the French Government through diplomatic channels in regard to this question. Even if an agreement relating to the simultaneous representation of the Reich and the States had existed according to the Law hitherto in force—which is disputed by the German Government—such an agreement would have become irrelevant owing to the complete reorganisation of the Reich.

2. In so far as the Central Commission for Rhine Navigation is concerned, the matter may be regarded as finally settled by the recognition of the new full powers by the Commission. For this reason, there appears to be no need to deal in this report with the quite different case of Prussia-Nassau, 1866.

3. As regards the new full powers for the other international river commissions on which Germany is represented, the International Commission of the Danube has meanwhile received a certified copy of the new full powers. This Commission will be responsible in the first instance for examining these full powers and pronouncing thereon. The procedure to be followed by the Commissions of the Elbe and Oder will be the same, as soon as the relevant new full powers have been transmitted to them.

4. Without wishing to forestall the proceedings of these commissions, the German Government regrets to observe that the French Government, in its verbal note of October 26th last, mentioned a verbal note dated November 13th, 1924, in which it disputes the right of the German Reich to be represented on the river commissions. The German Government has not of course accepted this view. Should the French Government, in the course of future negotiations in one of these commissions, revert to this contention, the German Government reserves the right, if need be, to deduce any consequences which such a declaration might involve.

5. In conclusion, the German Government desires to emphasise its view that the manner in which the question of the German representation on the commissions is settled cannot affect the decisions to be taken later in the event of a future union between the States entitled to vote.

As the French delegation on the Central Commission for Rhine Navigation forwarded on November 8th, during that Commission's debates, a copy of the verbal note of October 26th to the President of the Central Commission, asking him to communicate it to the various delegations, the German Government will on its side communicate the foregoing observations to all the Governments represented on the Rhine and Danube commissions and to the commissions themselves.

NOTE FROM THE GERMAN EMBASSY IN PARIS TO THE FRENCH MINISTRY FOR FOREIGN AFFAIRS,
DATED JANUARY 7TH, 1935.

[*Translation.*]

The German Embassy is directed by the German Government to reply as follows to the verbal note of the Ministry for Foreign Affairs, dated December 1st, 1934 :

The German Government does not wish to dispute the French Government's right to make observations on the German communications regarding German representation on the international river commissions. As regards the substance of the question, however, the German Government cannot change its point of view :

1. As regards the German representation on the Central Commission for Rhine Navigation, the German Government does not wish for the moment to enter into discussions concerning the scope of that Commission's resolution regarding the German full powers. It considers and has always considered that resolution as final. It has, moreover, the honour to draw the French Government's attention to the fact that the question of the revision of the Act of Mannheim will be dealt with on March 12th, 1935, at the special session which the Central Commission is to hold at San Remo. The question of the Commission's future organisation will be discussed at this session.

2. As regards the German representation on the International Commission of the Danube, the German Government holds quite a different opinion concerning the legal position. It is not true to say that the French contention—namely, that it is not Germany but the States of Württemberg and Bavaria which are represented on the commissions—has ever been recognised on the German side. On the contrary, ever since 1920, there has been no doubt regarding the fact that Germany was represented on the Commission (see International Conference for the Establishment of the Definitive Statute of the Danube, Protocol No. 35, pages 554 and following, Mr. Baldwin). The precedents mentioned in the verbal note of December 1st referred to details concerning the appointment of the German representatives and the presidency. The memorandum forwarded on April 11th, 1926, by M. Seeliger, former German delegate on the International Commission of the Danube, to the French delegate, M. Charles Roux, only deals with the question of the presidency. It should perhaps be suggested that the passage mentioned, which is indeed contained in a subordinate clause, should be re-examined from this aspect.

In view of the events which have meanwhile occurred at the December session of the International Commission of the Danube, the German Government sees no objection of principle to the legal questions which were raised in the Commission in connection with the question of the German representation being thoroughly examined. For these reasons, the German Government proposes to lay before the Governments concerned as soon as possible and in detail its views concerning the situation in fact and in law. This, however, cannot usefully be done until the German Government has received definite information of the legal standpoint of the French Government. In particular, the German Government would appreciate an answer to the two following questions :

(a) Does the French Government dispute the right of the German Reich to be represented on the International Commission of the Danube ?

(b) If not, does the French Government dispute the right of the German Government to have two delegates on the International Commission of the Danube as hitherto, if one of them is not simultaneously designated as the representative of Bavaria and the other as the representative of Württemberg ?

Should one of these two questions be answered in the affirmative, the German Government would like to be informed whether the reasons hitherto given constitute the whole of the substantive objections to the German representation on the International Commission of the Danube having two votes. If not, the German Government begs to be informed of any objections which might be raised in this connection.

As regards the question of equity again mentioned in the verbal note of December 1st, the German Government merely wishes to point out that, as regards Germany and France, the settlement provided for in the Danube Statute in no way constitutes a special advantage for Germany, more particularly if account is taken of the system of the Danube between Ulm and the Black Sea and the navigation interests of the two States. For these reasons, the German Government thinks there is all the less reason to change this situation to Germany's disadvantage and contrary to the interests of the other riparian States of the Danube.

Copy of the observations under paragraph 1 of this verbal note will be communicated to the Central Commission for Rhine Navigation. The German Government reserves the right to transmit to the Governments represented on the International Commission of the Danube a communication regarding the observations of the note as a whole.

REPLY OF THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED PARIS, OCTOBER 26TH, 1934

[*Translation.*]

By a note of October 4th, 1934, the German Embassy notified the Ministry for Foreign Affairs that, the German Law of January 30th, 1934, having provided that the rights of sovereignty of the German States passed to the Reich, the Berlin Government had informed the competent Ministry of the German States that the Reich would in future exercise its right itself to assume exclusively, in the matter of the competence of the international river commissions, all the sovereign rights of the Reich and of the States.

The Embassy added that the Reich had thus acquired all the rights that the German States possessed, under the treaties of peace and the different waterways agreements, as riparian States of the international rivers. It stated further that the full powers of the representatives on the river commissions which no longer correspond to this situation would be replaced by others issued exclusively in the name of the German Reich. Lastly, the Embassy requested the French Government to convey to its representatives on the river commissions the necessary information to this effect.

In acknowledging receipt of this communication, the Ministry for Foreign Affairs has the honour to point out to the German Embassy that, the German representation on the international river commissions having formed the subject of a diplomatic agreement between Germany and the different Powers represented on those commissions, this representation cannot be modified by the unilateral will of one of the parties.

The Treaty of Peace provided for the representation on the river commissions of the German riparian States only. When, by a note of November 13th, 1924, addressed to the German Embassy, the French Government admitted that "the delegates of the German riparian States could in that capacity represent the German Reich, it specified that it did not recognise any representation of the Reich as such to which the treaties of peace did not in any way entitle it."

While the recent absorption of the German States by the Reich constitutes a new fact which the French Government has already duly taken into account, the Reich, as successor to the individual States, can in law only claim one representative like those States themselves. Thus, after the war of 1866, Prussia continued to have only one delegate on the Rhine Commission, although it had absorbed Nassau, which had previously had a representative.

The French Government does not intend to apply this conclusion to the case of the German representation on the Commissions of the Rhine and the Elbe, on which all the Powers are represented by several delegates, but it would consider it contrary to law and equity that the fact of the unification of the Reich should be deemed to have the effect of giving to one only of the Powers represented on the International Commission of the Danube the privilege of having two representatives.

In conclusion, and without wishing to suggest any modification of the German representation on the Commissions of the Rhine, the Elbe or the Oder, on which the majority of the Powers have several delegates, it maintains that the Reich cannot claim a double representation on a commission which does not provide for double representation in the case of the other States represented.

REPLY OF THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED PARIS,
DECEMBER 1ST, 1934.

[*Translation.*]

In its note of November 20th, the German Embassy communicated to the Ministry for Foreign Affairs the observations suggested to its Government by the French Government's reply to the German note of October 4th last concerning German representation on the international river commissions.

The German Government considers that the Embassy's note of October 4th merely contains a notification of the changes involved, in the German Government's opinion, by German internal reorganisation. It was not the purpose of this note to open a diplomatic discussion with the French Government.

As regards the Central Commission for Rhine Navigation, the German Government considers that the matter may be regarded as finally settled by the recognition of the new German full powers by that Commission. The Embassy adds that it will rest with the International Commission of the Danube to decide as to the new full powers sent to it, entitling Germany to be represented on that Commission, and that this procedure must also be followed in regard to the Elbe and Oder Commissions.

Without wishing to prejudge these discussions, the German Government regrets to note that, in its note of October 26th last, the French Government referred to its note of November 13th, 1924, in which it disputed the right of the German Reich to be represented on the river commissions. The Embassy adds that, needless to say, the German Government has never accepted this contention, and, if the French Government reverts to it in connection with future negotiations, the German Government will reserve the right to deduce any consequences which such a declaration might involve.

Lastly, the Embassy emphasises the German Government's view that the manner in which the question of German representation on the river commissions is settled cannot affect the decisions to be taken in the event of a union between the States entitled to vote.

With reference to this communication, the Ministry for Foreign Affairs has the honour to point out to the German Embassy that, as its communication relating to the new state of affairs in regard to German public law and its effect, in the opinion of the Reich Government, upon German representation on the international river commissions was made to the French Government through diplomatic channels, the latter was justified in informing the German Government, and the other Governments to which the matter was submitted by that Government, of its opinion as to the effect of the new regime, likewise through diplomatic channels.

As regards the Central Commission for Rhine Navigation, the French Government cannot agree that the matter has been finally settled. That Commission, when recognising the validity of the new full powers of the German delegates, unanimously stipulated that its decision should not affect "such decisions as the Governments might take in the general matter of representation on all river commissions".

The Governments are thus free to settle the question of German representation on this Commission as they think fit. Moreover, in this connection, the French Government maintains the proposals contained in its note of October 26th last.

The French Government agrees that the International Commission of the Danube shall examine the German delegates' new powers at its next session.

On the other hand, the French Government cannot but be surprised that, after ten years, the German Government should dispute a contention which is strictly in accordance with the treaties. If the German Government disagreed, it had an opportunity of stating its views, not only when it received the verbal note from the Ministry for Foreign Affairs of November 13th, 1924, but later, during the discussions of the International Commission of the Danube in June 1926. On referring to the Minutes of that Commission (P.V.14, 1926, pages 210 to 217), the German Embassy will find that the French delegate reasserted, in the most categorical manner, that neither the treaties nor the Danube Statute provided for a German delegation on the Commission, and that it was the States of Württemberg and Bavaria which were represented on that body—and not Germany *qua* Germany.

Moreover, M. Charles Roux's statement was simply based on a memorandum handed to him by his German colleague for Bavaria on April 11th, 1926, in accordance with which "it would always be Bavaria and Württemberg which would be represented on the Danube Commission". Far from contradicting the French delegate's assertions, the German plenipotentiaries fully associated themselves with M. Charles Roux's statement regarding the conclusion of the negotiations and their consequences.

In the memorandum of April 11th referred to above, the German delegation had emphasised the necessity for an agreement between France and Germany on this matter.

Lastly, the French Government cannot agree to the question of German representation being settled otherwise than according to the principles to be applied in the event of the union of two States each entitled to vote, and to Germany's receiving in this respect treatment which is not justified by any consideration of law or of equity.

Since the German Government, at the outset, expressed its views in the form of a circular note addressed to Governments and communicated to the commissions, the French Government has considered it expedient to follow the same procedure, to which it will adhere as regards the foregoing considerations.

REPLY OF THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED PARIS,
FEBRUARY 15TH, 1935.

By its note of January 7th last, the German Embassy, under instructions from its Government, expressed a desire to be informed of the legal view of the French Government as to the representation of the Reich on the International Commission of the Danube.

The Ministry for Foreign Affairs has already laid before the German Embassy, on October 26th and December 1st, 1934, the various arguments which it considers to operate in favour of the admission of only one delegate of the Reich to the Commission in question.

Being anxious, however, to give satisfaction to the German Embassy, the Ministry for Foreign Affairs has the honour to state below the conclusions which, in its opinion, are to be drawn, as regards German representation on the Danube Commission, from the changes made in the constitutional organisation of the Reich and the German States by the Law of January 30th, 1934.

Since the two German riparian States no longer exist from the international standpoint, and since the treaty rights held by them have, in the German Government's opinion, been transferred to the Reich, the latter can only be represented on the Commission by a single delegate, in accordance with the principle that each riparian State is entitled to only one representative.

The view might also be taken that, since the treaties provide for no representation for the Reich as such, a fresh agreement would have to be made to determine its representation. In any case, as its representative stated at the session of last December, the French Government is quite prepared to conclude an agreement conferring on the Reich the right to be represented on the Commission by a single delegate.

The French Government does not think it necessary at present to choose between these two possible interpretations of the texts, since both lead to the same conclusion. It sincerely trusts that the German Government will be prepared to accept its view.

Should the German Government think otherwise, it would seem necessary to have recourse to the arbitration procedure suggested by the United Kingdom delegate at the meetings of the International Commission of the Danube last December. If it should prove impossible to reach an agreement on the subject-matter of the arbitration, the French Government would suggest that that question should be settled by the procedure laid down in Article 376 of the Treaty of Versailles and in the resolution of the Assembly of the League of Nations dated December 9th, 1920.

REPLY OF THE FRENCH MINISTRY FOR FOREIGN AFFAIRS, DATED MAY 27TH, 1935.

By note dated April 24th, the German Embassy was good enough to forward to the Ministry for Foreign Affairs a memorandum from the Government of the Reich concerning German representation on the International Commission of the Danube.

In that memorandum, the Government of the Reich puts forward, in the first place, a line of argument in favour of its obtaining two votes in the Commission in question. It asserts that the French Government's refusal to consider the maintenance of the present representation is not equitable, more particularly because France, which is not a riparian State and has few interests on the Danube, is represented on both the commissions that administer that river, whereas Germany, although a riparian State, is represented on only one of them.

The German Government adds that the problem of the representation of the Reich arises in connection with all the river commissions, and that there is no reason to submit the dispute regarding the International Commission of the Danube to an international tribunal as an isolated case.

The German Government further states that it is prepared to discuss immediately with the countries concerned the question of their collaboration in all river questions. As regards the Danube, it says that such collaboration should be contemplated for the entire course of the river down to the Black Sea, and that the ultimate solution should form part of a future settlement for all the rivers which flow through German territory. Lastly, it states that, pending the result of these negotiations, the Government of the Reich would consider a *modus vivendi* on the basis of the *status quo*.

The Ministry for Foreign Affairs has the honour to inform the German Embassy that, for reasons which it has already stated, the French Government cannot share the legal opinion of the Government of the Reich as to its claim to two votes in the International Commission of the Danube. In this connection, the French Government does not agree with the view taken in the German Memorandum that, in so concluding, it is ignoring considerations of equity. It holds that the representation of Germany on the International Commission of the Danube should be governed by the same rules as apply to the representation of other riparian States, which are entitled to only one delegate.

Moreover, in determining that representation, no comparison can, in its opinion, be made between the interests of riparian and non-riparian States, the part of the latter being to watch over the interests of the community of States, and not merely over their own interests.

Nor does the French Government think it desirable to enter upon negotiations in regard to a reform of the provisions relating to the collaboration of the Powers over the whole course of the Danube down to the Black Sea, in connection with such solutions as may be reached for the rivers which flow through German territory.

The French Government holds that the question of German representation on the International Commission of the Danube is a simple question of law, which must be settled by the procedure provided therefor by the treaties and Conventions in force. The French Government would willingly subscribe to the German Government's suggestion that the question of German representation on the other river commissions should be submitted at the same time to the tribunal to which the dispute regarding the Danube is referred, though it does not look upon that suggestion as being entirely justified. It considers, indeed, that, although there is disagreement on the question of law regarding the representation of Germany on all the river commissions, the only dispute as to the practical solution to be reached is that concerning the International Commission of the Danube.

Lastly, the French Government is of opinion that the *modus vivendi* concluded in December 1934 can be prolonged only in the contingencies therein contemplated—that is to say, in the event of judicial or arbitral proceedings being instituted.

(e) LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE ITALIAN GOVERNMENT ON JUNE 13TH, 1935.

[C.C.T.591.]

June 19th, 1935.

[Translation.]

The Italian Government is informed that the French Government and the Government of the United Kingdom have forwarded you two requests (Annexes 6(c) and (a)) for the submission to the Advisory and Technical Committee for Communications and Transit, in accordance with Article 376 of the Treaty of Versailles, of a memorandum with regard to a dispute which has arisen in connection with the representation of Germany on the Danube International Commission.

In this connection, I have the honour to inform you, by order of my Government, that the Italian Government associates itself with the step taken by the French Government and the Government of the United Kingdom.

(Signed) R. BOVA SCOPPA.

(f) LETTER ADDRESSED TO THE SECRETARY-GENERAL OF THE LEAGUE OF NATIONS BY THE CZECHOSLOVAK GOVERNMENT ON NOVEMBER 2ND, 1935.

[C.C.T.602.]

November 4th, 1935.

[Translation.]

With reference to the memoranda of His Majesty's Government in the United Kingdom of June 4th last (Annex 6(a)) and of the French Government of June 5th last (Annex 6(c)), relating to the dispute which has arisen in connection with the representation of Germany on the International Commission of the Danube, I have the honour, by order of my Government, to inform you that the Government of the Czechoslovak Republic associates itself in this matter with the step taken by the United Kingdom Government and the French Government.

(Signed) KÜNZL-JIZERSKÝ,
Permanent Delegate.

ANNEX 7.

SIGNS ADOPTED BY THE PERMANENT COMMITTEE ON ROAD TRAFFIC.



1. Overtaking prohibited.



2. Use of sound signals prohibited.

ANNEX 8.

[C.C.T.601.]

October 30th, 1935.

NOTE BY THE SECRETARIAT CONCERNING CIVIL LIABILITY OF
MOTORISTS (THIRD-PARTY RISKS) AND COMPULSORY INSURANCE.

The Rome International Institute for the Unification of Private Law undertook the study, some months ago, of the civil liability of motorists for damages caused by motor traffic, and it entrusted the examination of the question to a Committee of jurists particularly competent in the matter.

In conformity with the procedure arranged to ensure close co-operation between the League of Nations and the Rome Institute, the latter informed the League that it would be very glad to receive in this Committee any representatives of its competent organs who might wish to follow the Committee's work and take part therein.

As the question being studied by the International Committee closely affects certain questions in the province of the Permanent Committee on Road Traffic, this communication naturally received careful attention. The question of the civil liability of motorists for damages caused by motor traffic is, indeed, closely related to that of compulsory insurance, which has been referred for examination to the Permanent Committee on Road Traffic (see resolution of the Advisory and Technical Committee, eighth session, July 1925, document C.621.M.203.1925.VIII) and which can hardly be settled or even usefully discussed without the first-named question having been adequately cleared up.

In these circumstances, the Advisory and Technical Committee will doubtless learn with satisfaction that M. Heinrich Rothmund, member of the Permanent Committee on Road Traffic, Chief of the Police Division of the Federal Department of Justice and Police at Berne, consented to represent the Communications and Transit Organisation at the first session of the International Committee, which was held at Rome from May 27th to 30th, 1935.¹

The International Committee had at its disposal, among other documents, a preliminary study prepared by the International Institute for the Unification of Private Law, containing, not only the text of the legislative provisions of twenty-six countries, particularly in Europe and America, but also a systematic and very detailed report on the state of legislation in these countries. This report shows in the first place that the national legislation may be subdivided into two main groups as regards the regulations on this subject—those which have already put into force special rules on motorists' liability and those in which the question is governed by the general principles of private law and the practice of the courts. It also shows that the different problems which arise may be classified as follows :

1. Sphere of application of rules on special liability : " Motor vehicles ", " in circulation ", " on roads open to the public ".

2. Subjects of liability : Drivers and persons indirectly responsible (owner, possessor, user, etc.).

3. Nature of the liability, its effects : Fault of the person causing the damage as a factor constituting extra-contractual liability ; proof of the fault of the person causing the damage—the burden of which, according to the general principles of the law of procedure, falls on the victim—is gradually being replaced by the presumption that the fault lies with the person causing the damage, a presumption connected with strictly limitative provisions regarding proof of innocence : the traditional subjective basis is therefore slowly evolving in the direction of objective responsibility (the accessory responsibility of the owner, possessor, etc., is a consequence of this) ; liability for passengers ; coexistence of several faults and compensation for damage ; fixing of the indemnity.

4. Guarantee in favour of the victim : System of deposits ; system of compulsory insurance.

5. Competent jurisdiction : Determination of the competent court from the point of view of the municipal law of States and from the point of view of international private law.

Before going into a detailed examination of these five groups of problems, the report emphasises the following questions :

(a) Should unification be confined to countries already applying special laws on the subject, or should it be also extended to other countries ?

¹ The following attended this session : His Excellency M. Mariano D'AMELIO (*Chairman*) ; M. Alfredo ASCOLI (Italy), former Dean of the Faculty of Law at Rome University ; M. Ernest DELAQUIS, Professor of Penal Law, representative of the International Tourist Alliance ; Mr. Andrew Dewar GIBB (United Kingdom), Professor at Glasgow University ; M. Louis JOSSEBRAND (France), Dean of the Faculty of Law at Lyons University ; M. E. PRIMAULT, representative of the International Association of Recognised Automobile Clubs ; M. Heinrich ROTHMUND, Communications and Transit Organisation of the League ; M. Felipe SANCHEZ ROMAN Y GALLIFA (Spain), Professor at Madrid University ; M. RIGHETTI, Secretary-General of the Rome Institute ; M. MATTEUCCI, member of the Secretariat of that Institute.

(b) Does it seem desirable that unification should substitute a uniform law for national laws, or should it confine itself to adding to the legislation in force supplementary rules applicable only to "international" relations—*i.e.*, when the person having civil liability or the victim is a foreigner, or when the motor vehicle in question is registered abroad?

(c) Should provisions concerning the compulsory insurance of motor vehicles be introduced into the draft uniform law or not?

In view of the fact that, as stated above, the Advisory and Technical Committee has entrusted the Permanent Committee on Road Traffic with the task of examining the question of compulsory insurance, it seems desirable to give herewith a summary of the observations and suggestions made in the Rome Institute's report as regards problem 4 above—*i.e.*, the question of guarantees on behalf of the victim. The report contains the following passage on this subject:

"The problem of guarantees in favour of the victim is perhaps as important from the practical point of view as the legal problem of the basis and limits of liability. The best law as regards liability is not of much value to the victim if the person liable has not the means of meeting his liability. Particularly in international traffic, the problem of the guarantee in favour of the insured person is a delicate one. The victim, even if he has secured a sentence against the person responsible from the judge of the place in which the accident occurred (according to the general principles which govern territorial competence, but which are not admitted by all legislations in the international sphere), may remain empty-handed if the person causing the damage, continuing his journey, has left the country. In order to secure the execution of the judgment, the victim is obliged to follow the motor vehicle or proceed to the domicile of the person liable in order to ask for the confirmation of the judgment there, and then has to await its execution."

As to the guarantees provided for the protection of the rights of the victim, there are two systems: that of the deposit and that of compulsory insurance.

1. *System of the Deposit.*—The report shows that certain bodies of law, in order to ensure the solvency of the motorist in the event of his having to answer for damages caused to third parties, stipulate as a condition for the issue of a driving permit the giving of a guarantee consisting of the deposit of the sum in cash fixed by law or of securities equivalent to this amount. Provisions to this effect are contained in the legislation of the United Kingdom, Norway and some of the States of the United States of America; nevertheless, the deposit (£15,000 in the United Kingdom and 20,000 crowns in Norway) may be constituted either in cash or by an insurance, or, as in Norway, by a bank guarantee. The report adds that the difficulty of this system is that if the deposit is small it is not of much use, and if it was large enough to be of any use, it could only be paid by a very small number of persons.

2. *System of Compulsory Insurance.*—The report contains the following passage:

"The system of guarantee consisting in the motorist's obligation to insure against damages arising out of circulation in a motor vehicle is much more widespread and is still developing.

"All legislations providing for compulsory insurance by motorists do not lay down the same standards with regard to such a contract. The principal differences may be summarised as follows:

"(a) *With regard to the limit of the risk insured against.*—In this connection, it should be noted that, while certain legislations lay down that the insurance must cover all liability actions which may be brought against the insured person for damages due to the motor vehicle, others limit the obligation of insurance only to actions for compensation for damages caused to persons (death or injuries); others, again, lay down that the insurance must go up to a certain value, this limit usually corresponding to the limit of the compensation fixed by law.

"(b) *As regards the determination of the insurer.*—From this point of view, insurance is free in certain States and can be exercised by any insurance company, while companies are free to accept or refuse insurance proposals. In other countries, however, insurance companies wishing to engage in this special branch of activity are subject to Government recognition and supervision, and are further obliged to conclude insurance contracts with all persons declaring their willingness to do so under the conditions laid down.

"(c) *Regarding the action which may be brought by the victim.*—From this point of view, legislations differ in that, while some of them give the victim the right to bring an action for damages against the insured person—who, in his turn, can apply to the insurer on the basis of the insurance policy—other legislations, going still further in defence of the victim's interests, give him the right to bring an action against the insurer direct. In the latter case, the insurer has a right of recourse against the insured person in respect of risks not covered by the insurance contract (and also in the case of compulsory exemption as regards damages caused by serious negligence or fraud).

“ Mention should also be made of the quite exceptional clause contained in the Swedish law (paragraph 21). This law provides that, when an accident has been caused by a motor vehicle which, contrary to the law, is uninsured, or by a motor vehicle which it has not been possible to identify, the obligation to pay compensation rests *jointly and severally* on all the companies in Sweden engaged in insurance in respect of motor accidents.”

The report concludes that, while in all the Scandinavian States, Switzerland, Austria and some States outside Europe compulsory insurance has been adopted (in Germany there are only a few provisions of a local character confined to certain types of vehicles ; compulsory insurance exists throughout the Reich for schools of chauffeurs and public motor services managed by individuals or private companies), there are still certain large countries, including France and Italy, which have not yet considered it advisable or possible to adopt this course.¹

The discussion in the International Committee was, of course, greatly facilitated by the preparatory work of the Rome Institute. Moreover, it was conducted on the basis of a questionnaire which the Institute had drawn up in advance. The International Committee, after thorough discussion, adopted a general solution for each of these questions, with the exception, however, of questions relating to insurance which were not gone into thoroughly, the Rapporteur, M. Bruck, Professor at Hamburg University, not having submitted his report or attended the session. A summary of the resolutions adopted by the International Committee is given below (see Appendix). On the basis of these resolutions, a small drafting Committee will draw up, with the help of the Rome Institute, a draft law which will be examined by the International Committee at a further session which it is proposed to hold at the end of 1935. When final adjustments have been made, this draft law will be submitted, in accordance with the procedure of the Rome Institute, to the Council of the League of Nations, with a view to the summoning of an international conference by the latter.

Lastly, it should be mentioned that the necessary steps have already been taken to enable the Advisory and Technical Committee to submit to the International Committee any observations it may wish to make on the result of the studies undertaken by it, before the question is referred to the Council of the League of Nations.

Appendix.

[S.D.N.—U.D.P.1935—Studies XVII
Motorists' Liability—Document 6(1).]

LEAGUE OF NATIONS.

ROME INTERNATIONAL INSTITUTE FOR THE UNIFICATION OF PRIVATE LAW. COMMITTEE ON CIVIL LIABILITY OF MOTORISTS.

SUMMARY OF RESOLUTIONS ADOPTED BY THE COMMITTEE AT THE FIRST SESSION (May 27th-30th, 1935).

Questionnaire.

Resolutions.

(Document 5)

I.

Should unification be limited to those countries only which already have special laws on the subject of the liability of motorists, or should it be extended to the other countries ?

It is decided that unification should not be limited to the countries which already have special laws on the liability of motorists but should be extended to all countries.

II.

(a) What should be the field of application of the uniform law ? Should it regulate all cases of civil liability for damage caused by motor traffic ; or should it merely regulate cases of an international character ?

(a) For the moment, the Committee decides in principle that legislation shall have a general and uniform scope, while granting the States the right to restrict the application of this uniform law to cases of an international character.

¹ As stated above, the Rome Institute has taken as a basis of its study the legislative provisions in force in twenty-six countries. It should, however, be pointed out that, apart from these countries, there are others, even in Europe, which practise compulsory insurance. In Roumania, for example, the owners of public vehicles (motor-buses, taxis) are obliged, in virtue of a law of 1929, to insure each of their vehicles against accidents, failing which the vehicles cannot obtain a licence to run. It appears that compulsory insurance also exists in Hungary.

Furthermore, a report submitted to the 1933 General Assembly of the International Tourist Association by M. A. Lachenal on behalf of the Swiss Touring Club gives the percentage of uninsured persons in a number of countries in which insurance is not compulsory, as follows : Germany, 40% ; Belgium, Spain, Netherlands, 20% ; Estonia, 30% ; Italy, 40 to 50% ; France, about 20% ; Yugoslavia, 20 to 40%.

This list shows that, in fact, even in these countries, the majority of owners of motor vehicles seem in practice to have taken the necessary steps on their own initiative to insure against third-party risks.

(b) In the second assumption, what are the conditions which must determine the international character of the case? The nationality of the parties, the fact that they have their habitual residence in different countries, or the fact that the accident has occurred in a country with a vehicle coming from another country?

III.

What definition of vehicle should be given by the uniform law? Should a general definition be adopted or should the various types of vehicles covered by the law be enumerated?

IV.

(a) Should the application of the uniform law be subject to the condition that the accident has occurred during the "circulation" of the vehicle?

(b) In this case, how must "circulation" be defined?

(c) Should the condition be added that circulation must take place on roads or land open to the public?

V.

Should vehicles of a limited speed be excluded from the application of the uniform law?

VI.

(a) What persons are liable apart from the driver? The owner of the motor-car or the person who has it at his disposal (possessor, holder, guardian)?

(b) If the principle of the owner's liability is accepted, what will be his position in case the motor car is sold without prejudice to ownership?

(c) In the second hypothesis, should it nevertheless be presumed, unless proof is given to the contrary, that the owner has the vehicle at his disposal?

VII.

(a) What principle should be accepted as to the nature of the driver's liability? The principle of objective liability or of liability based on fault?

(b) In the second assumption referred to in the preceding paragraph, the international character of the case shall be determined by the fact that the accident has been caused by a motor-car registered in a country other than that in which the accident occurred.

The nationality of the parties shall not be taken into consideration.

The Committee decides to adopt, with an amendment, the definition laid down by the Executory Regulations of November 25th, 1932, to the Swiss Federal Law of March 15th, 1932, namely:

"Motor vehicles are held to be all vehicles which are propelled by motor power on roads or land open to the public without being obliged to make use of a railway track."

The Committee reserves the right to consider at a later date, account being taken of the results obtained, whether the provisions of the uniform law should be extended to other vehicles not running on rails.

(a) It is decided that the vehicle must be "in circulation".

(b) The Committee reserves the right to express an opinion at a later date.

(c) The Committee decides that the circulation provided for must take place on roads or land open to the public and that the roads reserved exclusively for motor-cars (motor highways) are also covered by the law.

The Committee decides not to take speed into consideration in making any distinctions, but to consider the type of vehicle and to exclude from the scope of the law:

(1) Agricultural tractors and other machine tools when they are not used for haulage service on roads;

(2) Steam rollers.

(a) The Committee decides to use the word "holder" to refer to the person who has the vehicle at his disposal. It defines the holder as follows:

"The person who has the power to use the vehicle."

(b) The question no longer arises.

(c) The Committee decides that it should be presumed that the proprietor must always be responsible unless he has proved that he had not the power to use the vehicle at the time of the accident.

(a) The Committee decides in principle to adopt the text of the Swiss law, with a few amendments—*i.e.*:

"Article 37.—If a person is killed or injured or if material damage is caused as

the result of the use of a motor vehicle, the civil liability falls on the holder.

“ He is discharged from civil liability if he proves that the damage was caused by *force majeure* or solely by a fault on the part of the injured person or a third person.”

This liability also applies to the driver.

(b) If the principle of objective liability is accepted in general, should more favourable treatment nevertheless be granted to the professional driver? What should such treatment be?

(b) The Committee decides not to grant more favourable treatment to the professional driver.

(c) In the other case, must the fault of the driver be presumed and should the burden of proof be placed upon him?

(c) The question no longer arises.

(d) If the principle of presumed fault is accepted, what must be the subject and extent of the evidence which the driver must give in order to prove his innocence? The absence of fault? The use of all precautions for avoiding the accident? Is it sufficient to prove that the damage was caused by defects in the construction or maintenance of the vehicle?

(d) The question no longer arises.

VIII.

(a) What must be the liability of the owner or of the person who has the motor-car at his disposal? Objective liability or the liability of the driver?

(a) The question has already been settled by the solution adopted under point VII(a).

(b) If the principle of objective liability is accepted, must reasons for exonerating persons from liability be admitted? *Force majeure*? The fault of the victim or of a third party?

(b) The Committee decides to accept as reasons for exoneration the case of *force majeure* and the fault of the injured party or of a third party (see solution of point VII(a)).

(c) Whatever principle is followed (objective liability or liability of the driver), can the person upon whom the civil liability falls be released from such liability when he proves that the circulation of the vehicle took place without his authorisation or against his will?

(c) The Committee decides that, if the vehicle was used without the authorisation or against the will of the holder, the latter is in principle not liable, unless it is proved that the use of the vehicle was made possible by his fault.

It remains understood that the person who has caused the damage must repair it (since he is considered as enjoying the power to use the vehicle).

IX.

(a) Will liability for damage caused to persons or articles transported in the case of paid transport be settled by the special law or by the general provisions relating to obligations under contract?

(a) The Committee decides in respect of paid transport to apply the liability established by the special law to damage caused to the persons transported.

A reservation is made regarding transport legislation in respect of civil liability for material damage (damage to things).

The clauses involving exoneration or reduction of compensation are annulled.

(b) In the case of free transport, must the special law be applied, or the general principles relating to obligations not fixed by contract?

(b) The Committee decides in respect of free transport that the principles of ordinary law in respect of criminal liability shall be applied.

X.

(a) Should the draft uniform law regulate cases of joint fault and compensation for damage?

(a) The Committee decides in the affirmative.

(b) If so, must the principle of the joint and several liability of the guilty persons be accepted when damage is caused to a third

(b) Although, when damage is caused to a third party by more than one vehicle, the principle of the joint and several liability of

party by more than one vehicle? On what principles must the indemnity be distributed among the parties jointly liable?

the guilty parties is established by ordinary law, the Committee considers that it is nevertheless preferable to lay down such joint and several liability.

As to the principles upon which the indemnity is distributed, the Committee adopts the text of the Swiss Law, Article 38—*i.e.* :

“When damage for which the holder is responsible is caused by more than one motor vehicle, the various holders are jointly and severally responsible towards the third party.

“As between the holders, the share of the indemnity falling on each of them is in proportion to the seriousness of the fault. If the fault cannot be established, the holders are equally responsible.”

(c) If the fault lies both with the person causing the damage and the victim, must the compensation be reduced in proportion to the fault of each of the parties?

(c) The Committee accepts the provision contained in the Swiss Law (Article 37) amended as follows :

“Except in the case of a fault which exculpates the person concerned, the court shall, if the victim has committed a fault whereby the liability of the holder is decreased, fix the compensation after taking account of all the circumstances.”

XI.

(a) Ought rules to be laid down for the payment of the compensation, or should the court be allowed the right to determine the amount of the compensation in accordance with the principles of ordinary law?

(b) In the first alternative, should the amount of the damages be fixed invariably by indemnities established in advance, or should principles be laid down for the payment of damages to be fixed by the court on general principles?

(c) Should account be taken only of material damage, or also of moral damage?

(a) and (b) The Committee decides in advance to give the court the right to determine the amount of the indemnity in accordance with the principles of ordinary law, account being taken of all the damage and subject to the question of compulsory insurance.

(c) The Committee decides to adopt the text of the Swiss Law (Article 42) slightly amended—*i.e.* :

“In case of fraud or of serious fault on the part of the holder or of any person for whom the holder is responsible, the court may, after taking the particular circumstances into account, allocate to the injured party, or in case of death to the family of the victim, an equitable indemnity apart from the repair of the material damage which has occurred.”

XII.

In case any provisions of the draft refer to national law, would it not be advisable to give a definition of the latter?

The Committee decides to adopt the material law of the place where the accident occurs.

XIII.

(a) Should the draft also contain provisions relating to economic guarantees in favour of the victim? If so, what system of guarantee should be adopted—security, compulsory insurance, or an autonomous guarantee fund?

(a) The Committee considers that the system of an autonomous guarantee fund should be rejected together with the system of security. The latter is only used in certain countries and does not offer any practical advantage.

The Committee recommends the adoption of the principle of compulsory insurance as the best solution and one that is in harmony with the principle of causal liability which has been adopted.

The Committee adjourns to a later date the examination and establishment of the methods of application and the possibilities of moderating the principle selected.

(b) In the first assumption, what will be the amount of the security ?

(c) If the principle of compulsory insurance is adopted, on what principles will this contract be regulated ? Should the insured risk be limited, and to what extent ? Should this branch of insurance be left free or should it be reserved for a certain category of companies subject to the recognition and supervision of the State ?

Should the victim be allowed to take direct action for damages against the insurer ?

(d) If the system of an autonomous guarantee fund is adopted, what will be the legal position of this institution ? In what manner and from what sources will the fund be constituted and supplied ?

XIV.

(a) Should the draft also regulate the powers of the courts in the matter ?

(b) If so, what court will be competent to try actions for compensation ? The court of the place where the damage occurred, the court of the habitual residence of the defendant, or either court at the choice of the victim ?

(b) This question no longer arises.

(c) The first paragraph is left in suspense until the plan of insurance has been drawn up.

The Committee decides in principle to allow the injured person to take direct action against the insurer.

(d) This question no longer arises.

(a) and (b) The Committee decides that the competent court is that of the *forum delicti*, and that the judgment in so far as it is final and irrevocable shall be enforceable in all countries which have adopted the uniform law.

Apart from the questions referred to in the Questionnaire (Document 5), the Committee :

XV.

Decides to fix a time-limit of action against the holder by partly adopting the text of the Swiss Law (Article 44)—*i.e.* :

“ Action against the holder lapses by prescription two years after the date on which the injured party learned of the damage and ascertained who was the author of it, and in all cases ten years after the date when the accident occurred.”

XVI.

It also decides to provide that, in case of a collision between several vehicles, the liability of the present law shall be applied.

Reciprocal damages shall be settled in accordance with the principle of offset.

ANNEX 9.

[C.C.T.598.]

October 26th, 1935.

NOTE BY THE SECRETARIAT ON NATIONAL PUBLIC WORKS.

Since the publication of the Addendum to document “ National Public Works ” (C.482. M.209.1934.VIII, Addendum), the following further replies to the Circular Letter of March 17th, 1934, relating to national public works have reached the Secretariat :

I. The *Australian Government's* reply supplements its previous information, which has already been published in the volume “ National Public Works ” and its Addendum.

This reply contains particulars of the public works carried out in the State of Victoria, furnished by the following authorities :

Closer Settlement Commission ;
Country Roads Board ;
Forests Commission ;
Melbourne and Metropolitan Board of Works ;
Melbourne and Metropolitan Tramways Board ;
Melbourne Harbour Trust ;
Metropolitan Gas Company ;
Railway Construction Branch, Board of Land and Works ;
State Electricity Commission of Victoria ;
State Rivers and Water Supply Commission.

Very full information is given regarding the various categories of works completed, in course of execution or under consideration, with special reference to roads and bridges, river improvement works, defensive work against floods, drainage, irrigation and other hydraulic works, land improvement and settlement, reafforestation, drinking-water supplies and sewage disposal, harbour works, railways, tramways, electric installations, gas supply.

In addition to giving a brief description of the works, the reply mentions their administrative organisation, the expenditure incurred and the methods of financing them, particularly by the creation of special funds for certain categories of works. Lastly, particulars are given of the effect of those works on the revival of economic and industrial activity and on unemployment.

2. The *French Government's* reply supplements its previous communications, which have already been published in the two volumes mentioned above.

This supplementary reply includes a report drawn up by the Ministry for Agriculture on the rural equipment work undertaken in France—namely : hydraulic and civil engineering works properly so called, rural electrification works and the supply of drinking water to rural communes.

Details are given regarding the various categories of these works, the general purpose of which is, on the one hand, to bring about the gradual improvement of living and working conditions in rural districts and, on the other, to improve the conditions of production, transformation and marketing of agricultural products.

The reply contains information concerning the administrative and technical organisation of the works, as well as their financing, and mentions in particular the financial assistance afforded by the State in the form of subsidies and the conditions under which those subsidies are granted. Lastly, it includes a brief summary of the results so far obtained and particulars of the works now in progress or the execution of which is under consideration, mentioning the expenditure incurred.

The following pamphlets were attached to this reply : a pamphlet dealing with rural electrification ; a booklet of instructions relating to rural equipment works.

ANNEX 10.

[C.C.T./N.I.59.]

May 14th, 1935.

REPORT BY THE SECRETARIAT ON THE ENQUIRY REGARDING THE INTERNATIONAL UNIFICATION OF INLAND NAVIGATION REGULATIONS.

Some time ago, a proposal relating to the co-ordination and codification of the various existing river navigation regulations, and suggesting the framing of general rules containing the fundamental provisions applicable to all navigable systems, was submitted to the Permanent Committee for Inland Navigation. The Committee considered the question at its eighth session, held in Geneva on November 27th and 28th, 1933, and recognised the utility which such unification might have for navigation, particularly on inter-communicating navigable systems, and believes that it would justify action in the sense suggested.

Without definitely limiting the scope of this action, the Committee felt that it would be better for the moment to consider only provisions the unification of which is particularly desirable—viz., the technical rules relating to navigation and the practice of navigation, such as : the rule of the road and rules regarding lights and signals, etc. ; distinctive or other marks ; working tackle ; signalling apparatus ; rules to be observed in passing during the night and in foggy weather, in cases of damage, stranding or wreck ; rules concerning the anchoring and mooring of vessels, etc.

Before examining more thoroughly the possibility of securing unification of the above-mentioned questions, the Committee considers it necessary to obtain fuller information as to the views of the Governments of the interested States on the foregoing suggestions.

The Committee has reserved the right to consider, on the basis of the replies given by Governments, what further action should be taken in the matter.

At its eighteenth session, held in Geneva from November 29th to December 1st, 1933, the Advisory and Technical Committee for Communications and Transit approved the conclusions arrived at by the Permanent Committee for Inland Navigation and the proposed procedure for the examination of this question. At the request of the Chairman of the Advisory and Technical Committee and on behalf of that body, the Secretary-General of the League of Nations addressed to the Governments of the European States a Circular Letter, dated December 13th, 1933, which had been drafted by the Permanent Committee on the above lines.

As a result of this consultation the Secretary-General has received replies from the Governments of the following States : Albania, Austria, Belgium, United Kingdom of Great Britain and Northern Ireland, Bulgaria, Denmark, Free City of Danzig, Spain, Estonia, Finland, France, Greece, Hungary, Irish Free State, Italy, Latvia, Norway, Netherlands, Poland, Roumania, Sweden, Switzerland, Czechoslovakia, Turkey, Union of Soviet Socialist Republics and Yugoslavia.

The following is a detailed summary of these replies, setting out the comments and proposals of each of the Governments concerned.

REPLIES FROM GOVERNMENTS.

Albania.—The Government recognises the importance of this question and has no objection to the proposal for the elaboration of general rules for inland navigation.

Austria.—The Government is not opposed to an attempt at unification in this matter, provided that it is confined to laying down certain fundamental principles, while at the same time allowing sufficient latitude for dealing with the peculiar conditions obtaining on particular streams or sections of such streams.

As regards the Danube, the navigation regulations have already been unified by the International Commission of the Danube in respect of the Ulm-Braila section, and these regulations were subsequently brought into almost complete harmony with the regulations issued by the European Commission of the Danube in respect of the Braila-Sulina section, which is navigable by ocean-going vessels.

Unification of the Danube regulations with those governing the other large European rivers, more particularly the Rhine, Elbe and Oder, would not appear to be urgent, as shipping communication between the Danube basin and the other rivers is not likely to be achieved in the near future. If, however, it were desired to unify the general principles underlying the navigation regulations before the establishment of such communication between the various navigable systems, it would be necessary to make due allowance for the traffic position on the Danube, and also to make the necessary distinction between the rules laid down in respect of natural navigable waterways and artificial communications.

Any future enquiry should also extend to certain principles of law, the international recognition of which would be of great value.

In the last place, in view of the fact that any changes in the regulations regarding the Danube, Rhine, Elbe and Oder are, in the first instance, a matter for the respective international river commissions, the first step towards unification would have to be an attempt to devise some procedure by which the difficulties arising out of this circumstance could be surmounted.

Belgium.—The Government is prepared to co-operate in the systematic co-ordination and codification of the various river navigation regulations.

The Belgian Government has, moreover, no objection to the course proposed by the Permanent Committee—namely, that the first step in this work should be an enquiry regarding technical rules relating to navigation and the practice of navigation. The Belgian Government indeed regards as an urgent necessity the unification of this category of rules, more particularly those relating to signals placed on vessels and engineering works, and the traffic rules to be observed by vessels on navigable waterways.

With a view to facilitating such work, the Belgian Government would further prefer that the proposed enquiry into unification should be confined to those navigable inland waterway systems which are of real importance from the point of view of international traffic. Such being the case, it suggests that any such enquiries should begin by an investigation of the possibilities of unifying the regulations governing the Rhine system and the navigable waterways connected with it.

United Kingdom of Great Britain and Northern Ireland.—The Government has no great interest in this question, as the vessels registered in the United Kingdom do not navigate upon international waterways, and, similarly, foreign vessels do not use the inland waterways of the United Kingdom. The United Kingdom does not therefore propose to take part in an enquiry on this subject.

Bulgaria.—The reply states that the question of international unification of regulations in regard to inland navigation does not interest the Bulgarian Government, as Bulgaria has no rivers or canals which are used for inland navigation.

Denmark.—As Denmark has no inland waterways of any importance, the Government considers that the question raised by the Circular is of no concern to it.

The reply was accompanied by a copy of the special regulations in force in regard to navigation on Danish inland waterways.

Free City of Danzig.—The unification of certain rules governing inland navigation is regarded as desirable—*e.g.*, those relating to passing, fog signals, the lighting of bridges, etc. The Government considers, however, that other rules should be adapted to local conditions and do not therefore lend themselves to unification.

Spain.—The Government states that, in Spain, inland navigation, which is confined in the main to the rivers Guadiana, Guadalquivir and Bilbao, is governed by the same rules as maritime shipping.

Estonia.—The Government is not interested in this question, as the country does not possess navigable systems communicating with foreign systems and as, in any case, the amount of river traffic is negligible.

Finland.—To Finland, this question is of no practical importance, nor have other countries any real interest in navigation on Finnish inland waterways, as Finnish vessels only rarely use foreign waterways, and, similarly, foreign vessels do not as a rule enter Finnish inland waterways. In any case, the regulations at present in force in Finland are already very similar to those in force in other countries, and on many points correspond to the international rules applied at sea and in territorial waters; they do not therefore present any difficulty to shipping.

The Government further states that in Finnish inland waters, with the exception of Lake Laatokko, the so-called lateral system of signals is in use.

France.—The French Government's comments on the various suggestions in the Circular are as follows :

1. Distinctive marks on vessels (particulars to be displayed, position and dimensions of lettering).—Unification in this respect would give rise to no difficulty and would even be a logical sequel to the Convention on the Registration of Vessels. The value of such a measure would, however, be very slight.

2. Working tackle.—The question of unification in this respect is extremely complicated, in the main because such tackle varies according to the type of vessel (barges, tugs, motor-propelled vessels, etc.). A general code of rules could therefore only be drawn up on similar lines—that is to say, if a distinction were made :

(a) Between vessels of different types ;

(b) Between two or three main types of navigable waterways necessitating the use of vessels of different types. The various waterways would subsequently be classified under the national regulations of each country.

Derogations might be permitted under the special sets of regulations.

3. Marking of the navigable channel.—The unification of the signs used to mark the channel and indicate obstacles would be of value and should be easy to achieve.

4. Lights and signals on vessels.—The unification of lights, sound signals and direction signals would be highly desirable ; it would, however, be extremely difficult to bring about. In any case, as regards the indication of direction, the signals adopted would have to be limited to three or four at the outside.

5. Rules of the road.—The question of the unification of the general rules of the road (overtaking, passing, waiting, towing, etc.) would appear to be absolutely impracticable in the light of the French authorities' experience, more particularly as these matters are the subject of many special rules in the regulations applied to particular waterways. It would appear to be no less difficult to alter these rules than to contemplate their incorporation in a general code of regulations.

6. Navigation during the night or in foggy weather : Damage, stranding : Rules concerning the anchoring and mooring of vessels.—It would appear that no useful purpose could be served by unifying these rules, in regard to which local conditions must always be the determining factor. Their unification would not mean that those in charge of vessels would really find this task any simpler than before.

In short, the French Government considers that the proposed investigations should in the first place deal with points 1, 3 and 4 (Distinctive marks : Marking of the channel : Lights and signals on vessels), and, incidentally, with point 2 (Working tackle), due regard being had to the reservations set out above.

On the other hand, the question of rules of the road and navigating rules is, in the French Government's opinion, quite impossible to solve.

Greece.—The Government states that it agrees with the opinion of the Permanent Committee for Inland Navigation regarding the procedure to be followed in investigating this question.

Hungary.—The Government states that the unification of the rules in question has already been achieved in Hungary, the Government having extended to all the country's navigable waterways the rules drawn up for the internationalised Danube system by the International Commission of the Danube. These regulations embody the technical rules mentioned in the Circular. In the Hungarian Government's opinion, it would be extremely valuable, from the point of view of river traffic, if such technical rules could, as far as possible, be unified on the chief European waterways and the rivers and canals by which they are linked together.

Irish Free State.—As there is no inland navigation between the Free State and Northern Ireland, the Government has no remarks to make with regard to this question.

Italy.—The question is of no practical importance as regards inland navigation in Italy, as the country's navigable waterways do not communicate with other European systems. As regards the Italian-Swiss frontier lakes, the question has already been settled by a Convention, and, in the Italian Government's opinion, no useful purpose would be served by altering the rules already laid down in order to bring them into line with those governing navigation on the great rivers giving access to the sea; there would indeed be a danger that the rules in question might be made more complicated and restrictive, and even that the development of traffic on these lakes might be retarded.

Italy therefore takes the view that she has no special interest in becoming a party to any such international convention or in joining in the necessary enquiries. She might, nevertheless, be indirectly interested in such unification in so far as it would facilitate international traffic on the chief inland waterways.

Latvia.—The Government states that the competent authorities fully recognise the value of the proposed unification and are in favour of the elaboration of general regulations with regard to navigation and the practice of navigation.

Norway.—The Government states that the matter dealt with in the Circular does not affect Norwegian interests and does not therefore call for comment on its part.

Netherlands.—The Government is sympathetic to the proposals put forward by the Permanent Committee. At the same time, it considers that, for the time being, it would be wiser to limit the enquiry into the possibilities of unification to the technical rules relating to navigation and lights and signals. In this Government's opinion, care should be taken to avoid introducing international provisions which might hamper navigation more than is absolutely necessary in the interests of safety.

Poland.—In principle, the Government considers this question as of great importance; unification would appear to be indispensable, more particularly in regard to international waterways and to those which the vessels of several States are authorised to navigate under international agreements. The Government hopes that the unification of the chief technical rules mentioned in the Circular will not cause any difficulty, especially as even now the regulations governing such matters in the various countries of Europe scarcely differ in their essential provisions. In the last place, the Government considers that, in any future unification convention, each provision should be worded with the utmost precision.

Roumania.—In its reply, the Government indicates that there are two navigable systems in Roumania: the Pruth and the Bega. The Olt and the Bistritza are also navigable, but only by rafts. From the international point of view, none of the systems is sufficiently important to justify a unification of rules. Such being the case, the Government is of the opinion that this question is of no practical concern to Roumania.

Sweden.—The reply states that foreign vessels only use Swedish navigable waterways and Swedish vessels only use foreign waterways to a negligible extent, and that no need for unification of the rules of navigation has made itself felt in this country. This is specially the case as the technical rules in question governing inland navigation in Sweden are in keeping with the rules governing navigation in Swedish coastal waters. Such being the case, the Government considers that it is not called upon to take part in the proposed investigations.

As examples of the rules enforced in Sweden, those applicable to the Trollhätten and Södertälje canals are appended to the reply.

Switzerland.—The Government has no particular comments to offer on the suggestions contained in the Circular. Switzerland would indeed scarcely have any direct interest in unification, as the majority of its waterways do not communicate with foreign systems. As regards navigation of frontier waters, rivers and lakes, a code of regulations has already been drawn up in agreement with the neighbouring States; as regards the treaty section of the Rhine below Basle, special regulations have been drawn up for the use of international shipping.

Czechoslovakia.—The reply states that the proposed unification applies to rules already embodied in existing regulations. As regards the navigable rivers of Czechoslovakia, the regulations governing the Danube and Elbe respectively were recently framed by the competent river commissions on the basis of the proposals of the riverine States and with due regard to the requirements of navigation. No useful purpose could therefore be served by altering these regulations with the view to unification, as, in so far as navigation is concerned, the two systems are not connected.

The question would only be of practical importance in regard to the Elbe and Oder systems, as the vessels navigating on the Oder use the Elbe to reach Hamburg. Action by the League of Nations, however, is not necessary for this purpose, as both the riverine States and the International River Commission, when drawing up the new regulations for navigation on the Oder, will certainly see that, wherever necessary, they are in harmony with the Elbe regulations.

In the last place, as regards the German, Polish or Czechoslovak national waterways, which may be used by vessels from the Elbe, Oder and even the Danube, the riverine States

will of their own accord do what is necessary—more particularly in the interests of their own vessels—to avoid the drawbacks of lack of uniformity in the rules. At the same time, the Czechoslovak Government considers that no useful purpose would be served by modifying these various rules with a view to their unification or to their replacement by those in force on other navigable systems never used by vessels from the Elbe, Oder and Danube.

Turkey.—The reply states that, the national watercourses being rather in the nature of torrents which only permit of navigation for a very short distance above their mouths, the Government can expect no immediate benefit from the proposed unification of rules.

Union of Soviet Socialist Republics.—The Government states that, in its opinion, it would be of value to proceed with the examination of the question of the international unification of the rules governing inland navigation mentioned in the Circular of December 13th, 1933.

Yugoslavia.—The reply points out that the efforts in favour of the unification of the regulations governing inland navigation made at the Belgian congresses for inland navigation in 1928—the value of which has been recognised by the Permanent Committee for Inland Navigation—were based upon the unification of the regulations applicable to the Rhine system of navigable waterways and the Western European rivers and canals connected with it.

The Danube system is not linked with the Rhine system and is unlikely to be in the near future; it follows that, as far as the Danube is concerned, the question has no immediate importance and might at the most be of a certain administrative interest to those Danubian States which are at the same time riverine States in the Western European system, as is the case with Germany and Czechoslovakia.

In any case, the navigation regulations on the Danube have already been unified by the International Commission of the Danube; these regulations have proved satisfactory to vessels plying on the Danube, and any change would therefore be unnecessary until the Rhine-Danube connection is established.

Such being the case, the Government is of the opinion that there is at present no need for any such unification of the regulations applicable to the two navigable systems mentioned above. Nevertheless, in view of the central position of Yugoslavia with regard to the Danube and its principal tributaries and canals, the Government is prepared to associate itself with the proposed enquiries, provided that all the other Danubian States do the same.

ANNEX 11.

[C.C.T./N.I.60.]

May 31st, 1935.

NOTE BY THE CHAIRMAN OF THE PERMANENT COMMITTEE FOR INLAND NAVIGATION CONCERNING THE ENQUIRY INTO THE INTERNATIONAL UNIFICATION OF INLAND NAVIGATION REGULATIONS.

The Chairman of the Permanent Committee for Inland Navigation has the honour to transmit to the members of that Committee the following information concerning the question of the international unification of inland navigation regulations.

The members of the Permanent Committee have already received the report prepared on this matter by the Secretariat (Annex 10) containing a summary of the Government's replies to the circular drawn up by the Permanent Committee at its eighth session, and which was sent by the Secretary-General of the League, on the Advisory and Technical Committee's decision, to the Governments of European countries.

As can be seen from these replies, a number of the Governments concerned, including, in particular, those of States bordering on the navigable waterways to which the unification of the regulations would primarily apply, do not appear to favour the proposed action, which, at all events for the moment, does not seem to them likely to achieve a practical result, or desire to restrict its scope and field of application. Some replies point out in particular the lack of co-ordination between the two chief navigable systems, that of the Rhine and the navigable waterways of Western Europe communicating with that river and the navigable system of the Danube, which, in the opinion of the States in question, does not appear to justify, at the present time, the unification of the regulations relating to these two systems.

As regards more especially the former system, that of Western Europe, the unification of that system alone, particularly if it was subject to the reservations and restrictions mentioned in the various replies, might possibly have more chance of success than a general European unification. Here again, however, it does not appear that an attempt at codification by the Communications and Transit Organisation of the League would be likely, in present circumstances, to lead to a satisfactory result.

Under these conditions, it might be better to leave the questions raised by the Committee's suggestions in abeyance for the time being. Moreover, as no other question is at present

before the Permanent Committee, there does not appear to be any justification for a meeting of that Committee in the near future to deal solely with the question of the unification of the regulations. The date of the next meeting should be fixed later, according to the nature and importance of the questions submitted to the Permanent Committee for examination.

ANNEX 12.

[C.C.T.595.]

October 18th, 1935.

CO-ORDINATION OF TRANSPORT.

EXTRACTS FROM THE REPORTS AND A RESOLUTION DEALING WITH THE QUESTION OF CO-ORDINATION OF TRANSPORT ADOPTED BY THE ASSEMBLY OF THE LEAGUE OF NATIONS AT ITS SIXTEENTH ORDINARY SESSION.

REPORT CONCERNING THE COMMUNICATIONS AND TRANSIT ORGANISATION SUBMITTED BY THE SECOND COMMITTEE TO THE ASSEMBLY.

The question of the co-ordination of transport, and more especially of railway and road transport, is particularly occupying the attention of Governments at present. As a result of the rapid progress of new methods of transport, such as motor and air transport, a large number of countries have to bear a growing burden on the public finances.

In order to obviate disorder in the transport system within their frontiers, certain Governments have found it necessary to take measures of various kinds, partly on economic grounds, but partly also on account of financial, social or national defence requirements.

It would seem that a comparison between the measures taken by those countries might give very useful indications and direct into profitable lines the policy of transport co-ordination already initiated in a certain number of States.

The attention of the Communications and Transit Organisation might be called to the advantage of undertaking such a study, considering the problem of transport co-ordination in its widest aspect—technical, economic and financial. In accordance with precedent, the Communications and Transit Organisation would, of course, secure any assistance it might consider necessary for this study, even from outside the Organisation. This enquiry would perhaps serve to show the possible advantages, in this sphere, of concerted action between adjacent countries or those obviously related geographically.

Resolution.

“ The Assembly,

“ (1)

“ (2)

“ (3) Noting the importance for a great number of countries of the problem of transport co-ordination, especially the co-ordination of railway and road transport, asks the Communications and Transit Organisation to study the situation and the measures taken to co-ordinate transport in the principal countries concerned, on the understanding that the problem of transport co-ordination should be viewed in its widest aspect—technical, economic and financial ;

“ (4) ”

REPORT CONCERNING ECONOMIC AND FINANCIAL QUESTIONS SUBMITTED BY THE SECOND COMMITTEE TO THE ASSEMBLY.

Recalling the draft resolution regarding the problem of the co-ordination of transport submitted by the Second Committee in the report on the work of the Communications and Transit Organisation, the Second Committee wishes to emphasise the exceptional importance of this problem in the economic and financial sphere, particularly owing to the heavy burdens imposed on all the national budgets by the prevalent policy of subsidies or support for certain modes of transport (such as air transport, merchant shipping, railways, etc.).

It considers it desirable that the Financial Committee and the Economic Committee should be asked to provide any assistance which might be requested by the Communications and Transit Organisation.

ANNEX 13.

[C.C.T.600.]

October 26th, 1935.

NOTE BY THE SECRETARIAT CONCERNING THE WORK OF THE
COMMITTEE OF EXPERTS FOR THE STUDY OF THE QUESTION
OF THE POLLUTION OF THE SEA BY OIL.

On July 19th, 1934, the United Kingdom Government addressed a letter to the Secretary-General of the League on the subject of the pollution of the sea by oil. The report of the Second Committee of the Assembly (fifteenth ordinary session, 1934) provided for an initial enquiry to be undertaken by the Communications and Transit Organisation on the understanding that after this enquiry the Organisation would convene experts belonging to various countries to study the problem more closely. The Chairman of the Advisory and Technical Committee for Communications and Transit invited experts from certain countries to study the question, and the first session of the Committee of Experts was held at Geneva from November 19th to 23rd, 1934.

On December 8th, 1934, the Secretary-General communicated to the Council that, in pursuance of the work of the Committee of Experts, the Communications and Transit Organisation recommended the conclusion of an international convention on this subject, and submitted to the Council a memorandum adopted by the Committee explaining the object of such a convention and the advantages to be derived therefrom. The Council approved the conclusions of the memorandum and adopted the following resolution on January 11th, 1935 (eighty-fourth session) :

“ The Council,

“ Authorises the Communications and Transit Organisation to make all necessary preparatory studies with a view to facilitating the future conclusion of an international convention in regard to the pollution of the sea by oil.”

With a view to giving effect to the resolution adopted by the Council, and in accordance with the request of the Chairman of the Advisory and Technical Committee for Communications and Transit, the Secretary-General addressed, on January 23rd, 1935, a Circular Letter, with a subjoined questionnaire, to States Members of the League and non-member States.

In the report on the work of the Organisation for Communications and Transit between the fifteenth and sixteenth ordinary sessions of the Assembly¹ adopted by the Assembly, there is an account of the progress made by the Organisation in the technical examination of the problem, with particular reference to the replies to the questionnaire sent to Governments.²

On September 24th, 1935 (sixteenth ordinary session), the Assembly adopted a resolution which reads, in part, as follows :

“ The Assembly,

“ Notes with satisfaction the work performed by the Communications and Transit Organisation between the fifteenth and sixteenth ordinary sessions of the Assembly ;

“ Taking note of the admirable work performed by the Communications and Transit Organisation in investigating the problem of the pollution of the sea by oil, and of the replies received from Governments to the questionnaire addressed to them :

“ Considers that the subject of the pollution of the sea by oil is one suitable for solution by an international convention ;

“ Requests the Council to instruct the Communications and Transit Organisation to take, as rapidly as possible, and with the assistance of expert advice, if required, the necessary steps to complete the preparation of a draft convention and to submit that draft to Governments for consideration ;

“ Invites the Council, in the light of the observations received from Governments, to convene an international conference on oil pollution at an appropriate time.”

On September 27th, 1935 (eighty-ninth session), the Council adopted the following resolution :

“ The Council,

“ Having regard to the resolution adopted by the Assembly on September 24th, 1935, with respect to the question of the pollution of the sea by oil :

“ Recalls that, at its eighty-fourth session, it authorised the Communications and Transit Organisation to make all necessary preparatory studies with a view to facilitating the future conclusion of an international convention ;

¹ Document A.47.1935.VIII.

² Document A.20.1935.VIII.

“Instructs the Communications and Transit Organisation to complete the preparation of a draft convention on this subject for the consideration of Governments, and to report to the Council when the observations from the Governments have been received.”

In order to give effect to the above-mentioned resolutions of the Assembly and the Council, the Chairman of the Advisory and Technical Committee for Communications and Transit decided to convene the Committee of Experts. Accordingly, the second session of the Committee was held at Geneva from October 21st to 25th, 1935, with the object of preparing, in the light of the replies to the questionnaire and of subsequent replies laid before the Committee, a draft convention for submission to Governments at an early date.

The report of the second session, together with the draft convention and draft final act for the use of a future international conference on the question of the pollution of the sea by oil, will be circulated to the members of the Advisory and Technical Committee in the near future.¹

ANNEX 14.

[Extract from document E.932.]

October 31st, 1935.

TOURIST TRAFFIC CONSIDERED AS AN INTERNATIONAL ECONOMIC FACTOR.

RESULTS OF THE SESSION OF THE SUB-COMMITTEE OF EXPERTS ON TOURIST TRAFFIC SET UP BY THE ECONOMIC COMMITTEE.

(Geneva, October 21st-24th, 1935.)

.....

SECTION II.—MEETING OF THE SUB-COMMITTEE OF EXPERTS ON THE TOURIST TRAFFIC.

A. *List of Members.*

Representatives of National Tourist Offices :

Austria : M. E. DEINLEIN, Head of the Tourist Traffic Department at the Federal Ministry of Commerce and Transport.

Spain : M. J. RUIZ DE ARANA, Viscount DE MAMBLAS, Head of the Tourist Traffic Department at the Ministry for Foreign Affairs (also representing the P.N.T. of Madrid).

United States : Mr. Donald F. BIGELOW, of the United States Consulate-General, Geneva.

France : M. E. PEYROMAURE-DEBORD, Maître des Requêtes at the Council of State, Delegate-General for Tourist Traffic.

Italy : M. Oreste BONOMI, Director-General of Tourist Traffic at the Press and Propaganda Ministry.²

Norway : M. G. B. LAMPE, Director of the National Tourist Traffic Office.

Netherlands : M. W. P. E. VAN DEVENTER, Director of the General Netherlands Tourist Traffic Union ; Secretary-General of the International Union of Official Organs for the Promotion of the Tourist Traffic.³

United Kingdom : Mr. L. A. DE LACY MEREDITH, General Director, the Travel and Industrial Development Association of Great Britain and Ireland.

Switzerland : M. Siegfried BITTEL, Director of the Swiss National Tourist Traffic Office.

Belgo-Luxemburg Union : Colonel E. N. F. PULINX, Director-General of the Belgo-Luxemburg Tourist Traffic Office.

Representatives of International Tourist Traffic Organisations :

International Touring Association, Brussels : M. Paul H. DUCHAINE, Secretary-General, Member of the Mines Board.

International Association of Recognised Automobile Clubs, Paris : Colonel G. PÉRON, Secretary-General.

¹ Document C.449.M.235.1935.VIII.

² Replaced during part of the session by M. A. RAVA, Head of Section at the Directorate-General of Tourist Traffic, Rome.

³ Prevented from being present by temporary absence in the United States.

Central Council of International Touring, Paris : Count HADELIN DE LIEDEKERKE-
BEAUFORT, President.

International Railway Union : M. LEVERVE, Secretary-General.¹

International Union of Official Organs for the Promotion of the Tourist Traffic : Colonel
E. N. F. PULINX, Chairman.

B. Results of the Session.

The Sub-Committee made a careful examination of the various questions relating to international tourist traffic in the light of the present economic situation. It divided the questions to be considered into two main categories : the first of a general character, comprising the questions which govern the development or cause the shrinkage of the international tourist traffic, and the second comprising the various technical problems relating to such traffic.

2. Technical Questions relating to the Tourist Traffic.

(a) *Passports.*—In the course of its consideration of various means of promoting and developing the international tourist traffic, the Sub-Committee gave its attention to the methods most likely to lead to this result.

In this connection, it examined the present position in respect of passports or documents in lieu of passports. It draws attention to the recommendations adopted by the Passport Conference held at Geneva in 1926, to which it is desirable that the various countries should, as far as possible, conform. While noting, moreover, that these recommendations have led to a considerable simplification of formalities in this connection, the Sub-Committee draws attention to the possible effect upon the international tourist traffic of the practice, in certain countries, of making a high charge for the issue of passports to nationals wishing to travel abroad.

While of opinion that the effects of such practices, which hitherto have not been widespread, should not be exaggerated, it considers that attention may well be drawn to their existence and to the fact that they have already provoked, and are likely to go on provoking, measures of retaliation.

Generally speaking, the Sub-Committee holds that, from the point of view of the international tourist traffic, it would be highly desirable that the pre-1914 position should be restored. This position was characterised by a general absence of restrictions, and tourists were not obliged to provide themselves with passports.

In this connection, the Sub-Committee ventures to impress upon the Economic Committee the desirability of drawing the attention of the Communications and Transit Organisation to the progress already made in various countries; either by independent action or bilateral agreements.

In this way, certain countries (such as Belgium, France and Switzerland) have reciprocally exempted their nationals from the necessity of producing passports or have agreed to the substitution for passports of some other paper indicative of nationality—*e.g.*, tourist cards, identity cards, collective lists in lieu of passports, etc.

An even larger number of countries have abolished visas.

(b) *Measures to reduce the Number of Traffic Documents.*—The multiplicity of international traffic documents at present required constitutes a hindrance to international motor travel.²

Some of these documents which comprise exactly the same particulars serve identical purposes ; others, such as the fiscal permit, have lost their *raison d'être* in the vast majority of countries ; others, lastly, such as those introduced by the Motor Traffic Convention of April 24th, 1926, can for all practical purposes be replaced by the corresponding national papers, as indeed has already been done in a number of countries.

The Sub-Committee is of the opinion that, in the interests of motor travel, it is important to reduce the number of documents required through the abolition of the fiscal permit, the international motor certificate and the international driving licences, provided always that those concerned are in possession of national licences. It notes that distinct progress has already been made through the co-operation of the League Transit Organisation with the International Association of Recognised Automobile Clubs and the International Touring Association, and urges these organisations to continue their efforts in this direction.

The Sub-Committee also hopes that the Transit Organisation will extend its present fruitful co-operation in the matter of road traffic to the international organisation concerned with such other means of communication as sea and air transport.

The Sub-Committee also turned its attention to the possible consequence—both as to the number of traffic papers and to the incidental charges payable by tourists—of the extension to foreign motorists staying in or passing through the country of *compulsory third-party insurances* in countries where compulsory insurance has been introduced, and in a form which in many cases entails complicated formalities at the frontiers. It considers that on

¹ Unable to attend.

² These remarks apply *mutatis mutandis* to travel by air, water, etc.

this point also an investigation should at once be made into the facts of the situation with a view to the introduction of every possible simplification compatible with the application of the national laws.

(c) *Recommendations of the Sub-Committee.*—The Sub-Committee recommends that, as regards both passports and the traffic documents required of foreign tourists, the various Governments, when framing regulations, should bear in mind, subject to legitimate considerations of national security, the three following principles :

- (1) The documents required by tourists proceeding abroad should be as few in number as possible ;
- (2) Their cost should be as low as possible ;
- (3) The formalities to be complied with in obtaining such documents and also during the time spent in foreign countries should be reduced to a minimum.

The Sub-Committee further expresses the hope that the Transit Organisation will study means of enabling foreign motorists to travel with a minimum of formalities in countries which have made third-party insurance compulsory in their territory.

(d) *Customs formalities.*—The Sub-Committee learnt that, at the instance of the French Government, the Secretariat of the International Association of Recognised Automobile Clubs was preparing a draft international convention for the codification, simplification and standardisation of those parts of the Customs legislation of the various countries which deal with the passage of tourists from one country to another by whatever means of transport, the Customs regime applicable to means of transport, spare parts, camping equipment, luggage, provisions, cameras, cine-cameras and wireless and other apparatus, and also to saddle and draught animals accompanying tourists, and, in the last place, the Customs regime applicable to publicity material.

As is essential in the case of a matter which, at least in part, forms the subject of international agreements or of investigations with a view to the conclusion of such agreements, the Sub-Committee expresses the hope that the League of Nations will be kept informed of the progress made in this direction, so that it may be instrumental in avoiding duplication and securing the necessary adjustments.

.....

(g) *Facilities to be granted in respect of Railway Travel.*—The Sub-Committee proceeded to an exchange of views regarding a number of questions relating to the conditions of railway travel and, more particularly, to the difficulties of the specialised organisations in drawing up combined itineraries on account of the diversity of railway tariffs and the varying extent to which reductions can be obtained on the ordinary rates, etc. It thinks that a useful means of stimulating travel would be to introduce an international *mileage ticket* with which tourists, on payment of a specified sum, could travel a stated number of miles on the railways of a number of countries (and also, perhaps, use water and air routes). These tickets would entitle their holders to break their journey whenever they choose at any station in the countries parties to the necessary agreement. The Sub-Committee is of opinion that the introduction of such a system might in the first place be confined to a limited geographical area and that, in this connection, the results obtained through the adoption of such tickets in Spain might be taken into account.

The Sub-Committee expresses the hope that this suggestion will be duly examined by the Transit Organisation.

ANNEX 15.

[C.C.T.597.]

October 18th, 1935.

NOTE BY THE SECRETARIAT CONCERNING THE CONSTITUTION, PROCEDURE AND PRACTICE OF THE COMMITTEES OF THE LEAGUE OF NATIONS.

At its fifteenth ordinary session, held from September 10th to 27th, 1934, the Assembly of the League of Nations decided to have a study made of the question whether corrections, adjustments or improvements should be made in the constitution, procedure and practice of League Committees, in order that proposals to those ends might, if necessary, be laid before the Assembly.

With a view to giving effect to this resolution, the Council instructed a special Committee to study the question. The report of this special Committee, dated August 5th, 1935 (see document A.16.1935), contains, *inter alia*, certain proposals regarding the constitution and working of various organs of the Communications and Transit Organisation.

On the proposal of the Second Committee (see document A.70.1935, of September 26th, 1935), the Assembly, at its sixteenth ordinary session (September 1935), approved the special Committee's suggestions regarding the Communications and Transit Organisation and requested the Council to take steps to ensure their application.

ANNEX 16.

[C.C.T.599.]
October 30th, 1935.

BUDGET OF THE COMMUNICATIONS AND TRANSIT ORGANISATION
FOR 1936, ADOPTED BY THE ASSEMBLY AT ITS SIXTEENTH SESSION.

| | Swiss francs | | | | | |
|---|--------------|--------|--------|--------|-------------|--------|
| | Estimates | | | | Expenditure | |
| | 1936 | 1935 | 1934 | 1933 | 1934 | 1933 |
| 1. General Conference | 23,000 | — | — | — | — | — |
| 2. Meetings of the Organisation for Communications and Transit (sessions of the Advisory and Technical Committee, other committees, sub-committees and special conferences) and technical work of experts | 70,000 | 75,000 | 75,000 | 90,000 | 19,018 | 36,127 |
| 3. Printing of documents : | | | | | | |
| (a) For meetings and other work under sub-head 2, except conferences | 8,000 | 8,000 | 9,000 | 12,000 | 5,318 | 4,716 |
| (b) Collection and exchange of information regarding communications and transit (including miscellaneous expenses) | 6,000 | 6,000 | 8,000 | 8,000 | 14,431 | 181 |
| 4. Settlement of disputes referred to the Committee and examination of similar questions submitted to the Committee by the Council .. | 20,000 | 20,000 | 20,000 | 20,000 | 5,848 | 909 |
| 5. Salaries (permanent staff) | — | — | — | — | — | — |
| 6. Travelling and removal expenses .. | 19,750 | 20,000 | 20,000 | 25,000 | 6,000 | 7,385 |
| 7. Cablegrams, telegrams and long-distance telephone communications and miscellaneous | 3,600 | 4,000 | 5,000 | 5,000 | 1,179 | 1,685 |

ANNEX 17.

[C.C.T.571(a).]
July 22nd, 1935.

PROPOSALS OF GOVERNMENTS REGARDING THE REPORT
OF THE COMMITTEE FOR THE UNIFICATION OF TRANSPORT
STATISTICS.

REPLIES OF GOVERNMENTS RECEIVED SINCE THE COMMITTEE'S
EIGHTEENTH SESSION.

In pursuance of a decision taken by the Committee at its seventeenth session, the report of the Committee for the Unification of Transport Statistics was communicated to the Governments, and several of them had already sent in their replies before the Committee's last session. These replies¹ were utilised by the Committee when it examined the question at its eighteenth session. Subsequently, replies have been received from the Union of South Africa and Poland. A summary of these replies, containing all the main proposals and objections put forward by these two Governments, will be found below.

¹ See Annex 12 to the Records of the Work of the Eighteenth Session of the Committee (document C.98.M.33. 1934.VIII), page 60.

Referring to the summary classification of the replies,¹ we find that these two new replies might be placed in category 4—*i.e.*, among the countries which consider that the proposals do not answer to their special situation and that it would be impossible for them in practice, at any rate at present, to compile the proposed statistics.

Union of South Africa.

As regards the principle of the proposals, the South African Government mentions the information referred to in the draft Convention which it would be able to supply at the moment and also states what particulars could only be supplied at considerable extra expense. The Union Government is not prepared to undertake this increased expenditure, but nevertheless proposes to make some important alterations in the statistics which are collected at present.

As regards details, the reply first of all notes that, as there is no internal navigation in the Union of South Africa or in the mandated territory of South West Africa, this part of the proposals does not concern it. It also mentions certain other provisions which cannot be applied to the territories in question. The principal observations are as follows :

Reservations are made as regards the division of the country into areas.

Statistics of railway traffic might be supplied according to the nomenclature in Annex A, subject to certain modifications. An example of the present statistics is enclosed, together with the nomenclature employed.

The reply also contains certain remarks on the minimum shipment of 500 kilogrammes.

Annex F (declaration for maritime navigation) cannot be accepted, owing to the administrative measures and expense which its introduction would involve.

It would not be possible to supply certain details on the tonnage of goods loaded and unloaded in maritime navigation, or certain particulars on the composition of these shipments in cases in which the present practice is different from that suggested in the proposals.

The same reservation is made as regards certain details requested concerning the movement of ships.

As regards the regulations on railway statistics, the reply contains some observations regarding secondary lines. Reservations are also made as regards the classification of the consignments according to the different categories of goods.

As regards the recommendations, the reply contains the following observations :

The South African merchant marine, with regard to which certain particulars are given, is composed of such small vessels that it does not seem worth while classifying them in the manner proposed.

As regards statistics of passengers, the practice at present followed is slightly different from the rules proposed.

As regards administrative and technical statistics for the railways, the majority of the details requested are already recorded, with certain differences or restrictions which are indicated in detail in the reply.

Poland.

The Government cannot at present accept the proposed Convention, but might perhaps consider it as a recommendation.

The reply points out that it would at present be impossible to divide Polish territory into areas for the three modes of transport ; these areas should, in the Government's opinion, correspond to the administrative divisions of the country, which would increase the difficulties experienced, particularly as the administrative boundaries are generally constituted by rivers, so that it is impossible to use them as inland navigation areas.

Inland navigation, indeed, is not important in Poland, since it represents only 2% of inland transport.

For all these reasons, the Polish Government could not accept uniform areas for the three modes of transport.

Lastly, the Polish Government proposes that the nomenclature of transport statistics should correspond to the nomenclature of goods drawn up after the International Conference on Economic Statistics (Geneva, 1928).

¹ See Annex 12 to the Records of the Work of the Eighteenth Session of the Committee (document C.98.M.33, 1934.VIII), page 60.

ANNEX 18.

[C.C.T.566(a).]

October 31st, 1935.

MEMORANDUM BY THE SECRETARY-GENERAL OF THE COMMITTEE ON
TRANSPORT AND TRANSIT OF ELECTRIC POWER AND REGIME OF THE
INTERNATIONAL EXCHANGE OF ELECTRIC POWER IN EUROPE.¹

ADDENDUM.

Sweden.

The Swedish Government has sent a letter from the Hydraulic Power Administration, in which this administration states that it is unable to give a direct reply to the questions put, but it refers to certain documents in which it considers that the required information can be found. The following documents were attached to the letter :

1. Communication No. 22 from the Royal Electrification Committee, containing a list of hydraulic establishments in Sweden in 1923, together with plans.
2. Communication No. 8 from the Royal Electrification Committee, containing a report, with plans annexed, concerning general conditions as regards the hydraulic power available on the one hand, and electric-power requirements, as well as the transmission of power with a view to the electrification of the different districts of Sweden, on the other.
3. Report of 1930 on the special enquiry undertaken by the Administration of Commerce concerning the hydraulic power exploited in Sweden at that date.
4. Communication No. 261 from the Hydraulic Power Association of Sweden, entitled "Hydro-electric development in Sweden, 1933".
5. "State Power Plants in Sweden", 1933.
6. Map showing the distribution of State hydraulic establishments for the central bloc, 1934 (3 sheets).
7. Plan of certain electric power lines, projected or under construction, from Lower Norrland to Central Sweden.
8. Report of the Administration of Commerce concerning Swedish industry in 1933 (hydraulic establishments, pages 22 to 28 and page 88 ; coal, page 69).

Lastly, the letter also refers to the map, "Europe, power factories and electric transmission systems", published in 1931 by the International Union of Producers and Distributors of Electric Power, Paris, and to the *Historical Statistical Year-Book* published by Dr. J. Guinchard, "Sveriges Land och Folk", containing information on the coal-mines.

Czechoslovakia.

The Czechoslovak Government has sent in a report on sources of power in Czechoslovakia, containing brief statistical data on the consumption of electric power ; this report was accompanied by two maps showing the electric factories and distribution systems as well as the sources of power and high-tension distribution systems already in existence or projected. The report shows where coal and lignite deposits are to be found, and enumerates the thermic and hydro-electric power stations.

The following works by Dr. Jaroslav Cerny, professor at the Czech Polytechnic School at Prague, have also been received :

"Efforts to secure International Co-operation in Legislation on Hydraulic Systems and Water Conservancy."

"Survey of the Activities arising out of the World Power Conference held at Basle in 1926 and Barcelona in 1929 (Legal Problems)."

"Draft International Standard for Requests for Concessions or Authorisations in connection with Hydraulic Rights (Application)."

"Die Wasserbücher der europäischen Staate."

"How to supplement Hydraulic Legislation from the Technical and Economic Points of View."

"Anwendung der Normalisierung in der Wasseradministrative."

¹ See Annex 22 to the Records of the Work of the Eighteenth Session of the Committee (document C.98.M.33, 1934.VIII), page 95.

“Anleitung wie die Projekte zu Gesuchen um Wasserrechtliche Bewilligung ausgestattet sein sollen.”

“Bestrebungen nach einer internationalen Zusammenarbeit in der Wassergesetzgebung und in der Verwaltung der Wassertarife.”

“Die Wassergesetzgebung und Wasseradministrative in Spanien.”

“Übersicht der aus den in Basel im Jahre 1926 und in Barcelona im Jahre 1929 abgehaltenen Weltkraftkonferenzen resultierende Tätigkeit.”

“Schutz der Mineral-(thermal) Quellen in der Gesetzgebung der europäischen Staaten.”

“Measures for the Protection of Agriculture contained in the Treaties of Peace, the International Conventions and the Present Hydraulic Legislation of European States.”

“Discharge and Evacuation of Water and Residues, etc.”

“Pollution of Rivers and Fisheries.”

“Protection of Thermal Mineral Springs in the Legislations of European States.”

“Care for the Purity of Water, etc.”
