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THE BBC TECHNICAL AND FOREIGN PROGRAMME JOURNAL

30

WORLD-RADIO

VOLUME XVIII. No. 445. FRIDAY, FEBRUARY 2, 1934



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WORLD RADIO



VOLUME EIGHTEEN, NO. 445, FRIDAY, FEBRUARY 2, 1934

PEACE AND THE "ETHER"

ON another page will be found the main points of a proposal placed before the Council of the League of Nations by M. René Massigli on behalf of M. Paul Boncour. The Council decided that the proposal was of sufficient importance to circulate, without delay, to the Governments, for their observations. More than two years ago the Assembly of the League adopted a resolution recommending that the International Institute of Intellectual Co-operation—an auxiliary organisation—should inquire into "all the international questions raised by the use of broadcasting in regard to good international relations." Broadcasting was thus recognised officially as a powerful instrument for good or ill in international affairs.

In the main these proposals are far from revolutionary: Governments are expected to prohibit, and, if occasion arises, to stop immediately the broadcasting of any message intended for the population of another State and constituting a menace to the peace or security of that State; to prohibit the broadcasting of messages likely to prejudice good international understanding by statements the inaccuracy of which is known to the broadcasters; and the like. So much for the negative side of the undertakings. On the positive side, Governments would undertake to ensure the accuracy of information concerning international relations broadcast within their territories, and to issue, for the guidance of Governmental broadcasting services, appropriate regulations. The question of penal sanctions to be applied in appropriate circumstances has not been specifically considered in the draft arrangement.

Most fortunately, too, it may be claimed that instances of the misapplication of the instrument of broadcasting in the direction of mischievous propaganda have been conspicuous by their rarity. In this connexion it is interesting to note that Austria and Czechoslovakia have signed a pact of non-aggression in the ether, by which they have agreed to refrain from broadcasts inimical to the friendly relations between the countries. It is said that Switzerland will also sign a pact of this nature. However commendable such pacts may be, they do not affect the point raised by the League Council as to the need for a general course of action approved by all countries.

"WIRELESS TOPICS"

IN the Technical Section of this issue will be found an article, the first of a series entitled "Wireless Topics." The articles are written for the benefit of two classes of readers: the prospective purchaser of a receiver and the home constructor. The former is frequently

at a loss to know precisely which of the many brands will best suit his needs; the latter, with a still larger choice, is in a greater difficulty.

Our contributor, who writes under the pen-name of "Ion," will pass in review receiving sets and components which are announced by reliable manufacturers; he will state in language easily understood by all the claims made by the makers, and will expound clearly anything in those claims which may appear recondite.

We need hardly say that, since the articles appear in WORLD-RADIO, they will contain no trace of bias, but will treat quite dispassionately the subjects with which they will deal.

VIA ETHER

Outstanding Orchestral Concerts

A NUMBER of very attractive musical broadcasts are announced in next week's programmes, and on SUNDAY, for instance, the music-lover will be able to tune-in at any time of the day and be sure of finding a transmission that will attract him. Thus, at 2.10 p.m. Hilversum is to relay the concert from the Concertgebouw, Amsterdam. I listened to this relay on Sunday last. The orchestra, undoubtedly one of the world's finest combinations, played Brahms's Third Symphony magnificently, and a 'cellist, whose name I did not catch in the announcement, gave a beautiful rendering of Lalo's 'Cello Concerto. In the evening, at 7.5, Prague and [the Czechoslovak stations are to relay the Czech Philharmonic Orchestra's concert, conducted by Alexander Zemlinsky. The main item in the programme is Mahler's *Lied der Erde*. MONDAY's outstanding concerts come from Budapest and Frankfurt respectively. At the former Tchaikovsky's Fifth Symphony is the chief item, and Béla Bartok is the soloist in a Bach and a Mozart Concerto. Vienna and Stockholm provide the principal attractions on TUESDAY with Liszt's *Eine Faust Symphony* and Verdi's Requiem respectively. On WEDNESDAY we are to have another of the European relay concerts, arranged by the International Broadcasting Union. This will come from Brussels No. 1. Désiré Defauw will conduct the Symphony Orchestra in a programme of Belgian music. A large number of European stations are taking this concert.

* * *

Broadcast Music

IN a recent interview Maestro de Sabato, the eminent composer and conductor, made reference to the question of music for broadcasting. As against the two opposing views represented, on the one hand, by the German musician, Max Butting, who holds that no music written in pre-broadcasting days should be radiated, and, on the other hand, by the school which is of the opinion that any music, old or modern, can be broadcast, Maestro de Sabato expressed the view that the solution of the problem may be found along a different line of research, *i.e.*, in trying to achieve the utmost technical perfection in transmission. It is not so much a question of composing special music, but rather one of microphone technique, the ideal to be aimed at being the point where every problem of tone-form, both with regard to intensity and timbre, will have been solved. Things being what they are, one should thus strive to give the "best and most faithful renderings possible, and also when arranging the programmes to include all that is best."

ETHERVIATOR.

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China Looks at the West

by Ann Bridge

[Miss Ann Bridge, the author of "Peking Picnic," gave the first talk in the present B.B.C. series on "The Far East." Her subject was the life of Chinese farmers. In this article she surveys the reactions of the Chinese public in the face of such Western inventions as broadcasting, cinemas, motor transport, clocks, and cameras.]

THE attitude of a people towards new and strange things depends mainly on that people's general conception of life. To the savage who regards all natural phenomena as expressions of the moods of his god—the wind his breath, the thunder his rage—strange inventions are usually startling or horrifying; to a more civilised race the same inventions are merely curious and exciting. So, to understand the Chinese attitude to the inventions which contact with the West has brought to them, we must first try to understand the Chinese outlook in general.

The Chinese, we must remember, have themselves been highly civilised for far longer than we have. When our ancestors were going about in skins and a lick of blue paint, killing their lunces and their rivals with stone axes, the Chinese were already discussing philosophy in the courts of walled cities, dressed in silken robes. And they were civilised in a truer sense than we; for having reached a level of culture which satisfied them, they refused serenely to be disturbed from without by the introduction of methods which did not suit them. Foreigners, except men of learning or religion, were not allowed to settle in the country, or even to enter it, save as bearers of tribute, or on embassies. For thousands of years China was, so to speak, a closed alembic, in which her people carried on their traditional methods of art, agriculture, and social intercourse. It is one of the tragic ironies of history that the nation which first invented gunpowder, and wisely elected to use it for fireworks rather than for the taking of human life, should have been forced at last to open its doors to the stranger by the use of firearms.

The Chinese, moreover, have always been a fairly scientific people. They used coal for fuel many centuries before the West, and the art of glass-making was well known in China long before its occurrence in Europe. But they have always been selective, even among their own discoveries, rejecting what did not suit them; they deliberately refrained from using glass for windows, because paper panes give greater privacy to their one-storey houses, and, being non-conducting, are warmer in their very cold winter, and cooler in summer.

THERE is another aspect of the Chinese outlook on the world in general which affects their attitude to everything foreign. According to the ancient Chinese astronomers, the earth was the centre of the universe, carrying the sun and moon about with it through space to light and warm it, as a man might carry a portable stove and a lamp. Further, they believed the Altar of Heaven, the great shrine of their most ancient beliefs, to be the very and precise centre of the earth; and the Chinese people, therefore, to be quite literally at the hub of the universe. It follows naturally enough from this belief that foreigners—*wai-kuo-jen* (people from lands without)—are to the Chinese a lower order of beings, barbarians—or worse, demons. And even to-day, the underlying principle of the Chinese attitude towards the foreigner is still this vast self-complacency, this quiet, unshakable, and perfectly courteous conviction of his own immense superiority to all foreigners. It runs through all classes of society, though, if anything, the conviction is even stronger among the working people than among the more educated. They may envy and try to copy the scientific skill of foreigners, but the foreigner himself they despise.

So it is only to be expected that the attitude of even the ordinary Chinese artisan towards Western inventions should be very different from that of the South Sea Islander. Con-

fronted with something absolutely new to him, he is not in the least frightened. He displays curiosity, tempered with amusement—what gadget have these comic barbarians got hold of now? Look! he clicks a button and it makes a sketch! Ha-ha! Give sight—here is a cart which runs without a coolie or a mule—how useful! Ha-ha-ha! Lo, a clock! At any hour you wish, it rings a bell! Ha-ha-ha-ha! They crowd round the camera, the car, or the alarm-clock, inquisitive to the point of doing mischief; but—this is the thing to note—still superior. The Chinese are not very clever at machinery anyhow, and the superior attitude of the ordinary Chinese chauffeur to a car is not at all good for the gear-box. You may tell him always to double de-clutch, and show him how to do it; but having discovered by trial and error that he *can* ram his gear-lever through without, he will continue to do so whenever you are not in the car. You are only a poor barbarian—and crash! go your gears.

THE barriers are down now, and the merchants of the West are pouring their products into China, the vastest potential market left in the world. And the Chinese, as always, amused and superior, selects what suits him and adapts it to his own purposes. The warlord has his car built with a bullet-proof body and quick-release shutters for the windows; the official has special handles attached to the roof of his, so that he may carry half a dozen soldiers on his running-board to gain "face." The coolie buys cheap American cigarettes in millions—the only luxury he has ever been able to afford; he values kerosene tins immensely, because they make durable buckets! Electricity is obviously useful; they instal it wherever they can. Motor-buses are a means of transport admirably suited to China's heavy volume of minor traffic between village and village, and they are being widely adopted, and roads built for them; railways, on the other hand, are not so well adapted to her needs, and though trains were introduced long before motors, China still has only about 8,000 miles of railroad, and the Chinese are very apt to use the rolling-stock for barracks, hospitals or almost any odd purpose, rather than keep it running as a train.

QUITE rightly, quite sensibly, really, the Chinese refuses to be the slave of machinery, and relates every new invention he meets to his own scheme of things. They buy quantities of alarm-clocks, but for an ornament or a joke quite as often as for any practical purpose. To possess some Western invention has a certain *chic*, it gives "face." A wealthy Chinese whose collection of porcelain and bronzes is of international renown once showed a party of English people over his house. He murmured deprecatingly when they praised his priceless treasures; then he led them to see the most cherished of all. Throwing open a door, he revealed a modern water-closet! Proudly he pulled the chain—the water flowed; he watched it to the very end, with a wistful smile of triumph, before closing the door.

One factor which hinders the Chinese in either the understanding or the manipulation of modern machinery is the question of language. Ideas, even mechanical ideas, must ultimately be expressed in words as well as illustrated by



A street scene in China to-day



Broadcasting and Peace

(From our Geneva Correspondent)

AN important draft international agreement concerning the use of broadcasting in the interests of peace, opening up new possibilities in the organisation of the world's broadcasting systems, has been communicated to Governments for their observations.

One of the first steps taken by the Council of the League of Nations when its session opened on January 15 was to agree to the immediate circulation of this world broadcasting proposal, which aims particularly at eliminating from wireless programmes statements "appealing directly to warlike passion and messages insidiously exploiting the possibilities of international friction."

The proposal was placed before the Council of the League by M. René Massigli, the French diplomat, as M. Paul-Boncour was unable to arrive in Geneva for the first day's business of the League Council's session. The Council quickly decided to circulate the proposal to Governments for their observations, to be made before August 1, 1934. The proposal will be sent also to countries which are not members of the League of Nations, including the United States and Russia.

The main points of the proposal are as follows:—

1. An undertaking to prohibit, and, if occasion arises, to stop immediately, the broadcasting of any message intended for the population of another State and constituting a menace to the internal peace or security of that State. It is pointed out that messages to racial minorities or to political parties might sometimes constitute a menace to peace.

2. An undertaking to arrange that transmissions shall contain no incitement to war nor any systematic provocation likely to lead to war.

3. An undertaking to prohibit the broadcasting of messages likely to prejudice good international understanding by statements the inaccuracy of which is, or ought to be, known to the service responsible for the transmission. It is further laid down that any message likely to disturb good international understanding by inaccurate statements shall be rectified immediately by the most effective means, even in cases where such inaccuracy becomes apparent only after the transmission has taken place.

4. An undertaking to ensure, especially in time of crisis, the accuracy of the information concerning international relations broadcast within their respective territories. It is officially admitted that it is by no means easy to find a precise formula for this obligation and therefore only a moral obligation is aimed at. Although Governments are not required under this arrangement to organise a special information service, they are nevertheless obliged to bear in mind the importance of the positive aspect of the problem—namely, the broadcasting of accurate information concerning international life.

5. An undertaking to issue, for the guidance of Governmental broadcasting services, appropriate instructions and regulations, and to secure their application by those services. The question of penal sanctions, in the event of the rules being internationally and systematically violated, has not been explicitly considered in the present draft arrangement. It is intended, however, that each Government should be free to choose the executive measures to be taken in such cases.

6. An undertaking to ensure that in the programmes broadcast within their respective territories shall be included items calculated to

promote a better knowledge of the civilisation and the conditions of life of other peoples, as well as of the essential features of the development of their mutual relations and of the organisation of peace.

7. A special conciliation procedure has been provided which would confine recourse to the Permanent Court of International Justice at the Hague or an arbitral body to cases of absolute necessity. In the ordinary course of events a satisfactory settlement would be arrived at by other means.

The eleventh article of the draft proposes that it should come into force after ratification by two Governments, and the twelfth fixes one year's notice as necessary for its denunciation.

This is by no means the first step which the League of Nations has taken in this direction, for as early as September 24, 1931, the Assembly adopted a resolution recommending that the International Institute of Intellectual Co-operation should inquire into "all the international questions raised by the use of broadcasting in regard to good international relations."

This Institute convened a committee of experts to examine the principles which should be embodied in broadcasting agreements designed to promote peace, to study existing agreements, and, if necessary, to consider how a draft international agreement could be prepared.

The committee of experts submitted a report to the International Committee on Intellectual Co-operation, in which Professor Gilbert Murray takes a prominent part. The report was endorsed by this committee and subsequently by the League Assembly in September, 1933. On November 24 and 25, 1933, a drafting committee under the chairmanship of Mr. Arnold Raestad, former Norwegian Minister for Foreign Affairs, drew up the draft international agreement.

Foreign News Bulletins

FOR the benefit of those who listen to foreign news bulletins, we give a brief summary of those stations from which news is broadcast, as a rule, at the same hour daily. Exceptions, of course, are inevitable, when the nature of the transmission does not allow of interruption at the hour in question, but all such details can be ascertained from the programmes. All the times are given in Greenwich Mean Time.

Algiers : Between 8 and 9 p.m.
 Barcelona : 12 midnight.
 Berlin, and most German Stations : 9 p.m.
 Beromünster : 8 p.m.
 Brussels No. 1 and No. 2 : 7.30 and 10 p.m.
 Bucharest : 5 and 8.45 p.m.
 Copenhagen (Kalundborg) : 6 and 9 p.m.
 Hilversum : 7.40 and 10.40 p.m.
 Lyons (la Doua) : 6.15 p.m.
 Monte Ceneri : 6.15 p.m.
 Oslo : 8.40 p.m.
 Paris, Poste Parisien : 7.15.
 Paris, Radio-Paris : 7.30 a.m. and 8.30 p.m.
 Prague : 9 p.m.
 Rome : 6.50 and 10 p.m.
 Sottens : 9 (approx.).
 Stockholm : 6.15 and 8.45 p.m.
 Strasbourg : 8 (German) and 9.30 approx. (French).
 Toulouse : 12 midnight.
 Turin : 6.50 and 10 p.m.
 Vienna : 8 or 9 p.m.
 Warsaw : 6.45 p.m. (approx.).

diagrams. European languages, with their words composed of letters and their Greek and Latin roots, are very flexible; we can easily coin new words or join old ones, to express a new meaning or to describe a new object. But written Chinese has no spelling—it is a picture-language, with one letter or character to each word or part of a word. This system of ideograms keeps the language inflexible, rigid; it is extremely difficult to express in it any new concept. Thus the rickshaw, which we regard as peculiarly Chinese, they call a "foreign-cart," because it was invented by a foreigner. A train is a "fire-cart," a motor a "gas-cart," soda-water is "breath-water." Where we quietly annex two Greek words, voice and distance, and make the word "telephone," complete in itself and carrying its own meaning, the Chinese say laboriously that they "strike electric talk"; the cinema is "electric eyes." Their new conceptions, even, are kept both simple and rigid by the rigidity and simplicity of their language. A movement is growing in favour of romanising Chinese; *i.e.*, exchanging the characters for European spelling; and a military dictionary of romanised Chinese already exists, necessitated by the increasing use of modern weapons in the Chinese armies. If romanisation ever becomes general, it will no doubt help the spread of modern inventions.

THE Chinese can enjoy what they do not understand. Cinemas are extremely popular. The audiences treat them like a theatre, greeting the exploits of the hero and heroine with almost hysterical applause, and I have seen them rise to their feet as one man and shout with excitement when Douglas Fairbanks ripped the sail of a pirate ship from top to bottom with a dagger. Broadcasting, relatively a new-comer to China, is getting very popular, too. Owing to their great poverty, for the mass of the population listening is more or less a social activity; they gather at the shops which possess loudspeakers, while the instrument brays out the din of a brass band, a Chinese orchestra, propaganda, or news items. Listening comes naturally to the Chinese, a people who have never been literate nationally, and therefore have never really succumbed to a daily Press; news still reaches the country places by word of mouth, as it has done for three thousand years. So the voice from the air is really only a step on from the news-bearing wayfarer under the village tree of an evening.

LETTERS TO THE EDITOR

Programmes Hour by Hour

To the Editor of WORLD-RADIO

SIR,—May I express my appreciation of your new system of arranging the foreign programmes, and also the new type? Although I am one who underlines the programmes to which I want to listen during the week, and find the new arrangement a little more difficult for this purpose, once it is done it is much easier to follow when the day comes.

Hoping that you will not be persuaded to revert to the old method of programme arrangement now that you have started this system, which gives the greatest amount of satisfaction to the most.

Yours faithfully,

J. B. STANTON.

Denmark Hill, London, S.E.5, Jan. 21, 1934.

To the Editor of WORLD-RADIO

SIR,—I should like to express my appreciation of the new programme arrangement in WORLD-RADIO.

May I, however, suggest that an even more satisfactory arrangement would be obtained by putting the B.B.C. programmes at the head of each of the hourly columns? With the present arrangement one is apt to search through all the European programmes, forgetting that the local stations may provide just what is required.

Yours faithfully,

G. H. HICKLING.

Fenham, Newcastle-on-Tyne, Jan. 20, 1934.

To the Editor of WORLD-RADIO

SIR,—As a regular reader of WORLD-RADIO, I am writing to say how much I appreciate the new manner in which the programmes have been arranged. But I would take this opportunity to suggest that it would certainly be far easier for those who do not know the various wavelengths off by heart, as I happen to do, if you were to put the wavelength after the station and therefore save time in having to refer to the back of the book each time a fresh station is wanted. I make you a present of the suggestion, and wish the paper every success.

Yours faithfully,

E. H. C.

Lugard Road, Aigburth, Liverpool.

[Space does not permit the constant repetition of frequencies, and the adoption of our suggestion that the bottom left-hand corner of programme pages be cut off, as indicated by dotted line, will eliminate any inconvenience or loss of time in turning to the alphabetical list of stations for wavelengths.—Ed.]

To the Editor of WORLD-RADIO

SIR,—As you have published a number of readers' opinions of your new programme arrangements, I am sending mine, which, however, I do not suppose you will dare print. I think your paper, as a whole, is ROTTEN.

In the first place, you publish programmes of less than forty stations and call yourselves "WORLD"-RADIO. This list may be of use to a tyro buying his first cheap battery-operated set, but it is of little use to any listener with any more-up-to-date set. Even if you published the programmes of the stations which are best heard, it would not be so bad. But you include Palermo, which, sharing the frequency of a powerful station like Athlone, must be inaudible to any commercial set in the country; Vatican, which, I have never heard anyone get, Spanish stations easily heard round about midnight, but of little use earlier; and many others. As a guide to recognising stations your paper is almost useless. Last night, for instance, I

heard a powerful station between Rome and Munich. Nothing in your paper helps me to know whether this was Kiev or Tallinn, and few of us are proficient enough as linguists to recognise other languages than French, German, or Italian. Secondly, the limited programmes you publish are often wrong. It is quite usual to get a station, refer to your programme, and find that something entirely different is on the air. This, however, is possibly not your fault.

Save space by leaving out the highly technical matter you publish which is double Dutch to most of us.

Yours faithfully,

H. ADAMS.

11, Smith Street, Guernsey, January 18, 1934.

A Great Singer and his Art

To the Editor of WORLD-RADIO

SIR,—As one who was intimately acquainted in Rome with Jean de Reszke's master, Antonio Cotogni (Italy's greatest baritone of all time), with whom he studied five years as a *tenor*, and as one who was trained in the same school by a renowned contemporary of Cotogni, may I constructively challenge certain statements attributed to Jean de Reszke in WORLD-RADIO last week?

If de Reszke's dictum that "the tongue *must* be arched to get a good tone" was applicable to his own case, it cannot be, and positively is not, applicable to all individuals, on account of the subtle variations in structure and functioning encountered. If, during the production of good tone, the tongue arches naturally on certain notes, with a certain vowel or vowels, this signifies that for the particular individual the tongue arches, as a contributive factor, to concur in the correct formation and emission of such tone. When vowel formation in relation to pitch is correct, the tongue adjusts itself automatically because it is a servant, an auxiliary to vowel formation, and not the prime factor of vocal tone and its production. An equally good tone on the same note and with the same vowel can be produced by another individual with flat, flattish, or even a grooved tongue; assuming that this flattened position is natural to that singer, she or he could not possibly get out that same good tone if *made* to arch it, just because one great singer arches his naturally and advocates others to do so indiscriminately.

Great singers are not alien to pet theories and fads. I have known, and know, many celebrated singers of different nationalities and of both sexes; they all secretly harbour some fixed little fad, theory, or even mania, which is often totally at variance with their vocal practice. When teaching, de Reszke continually stressed the immense importance of diaphragmatic breathing, and here are individuals being taught the "de Reszke method of abdominal breathing" (I have handled pupils from both sources), yet your contributor quotes de Reszke positively as saying, "Don't think of breathing." Cotogni never taught this bulging abdomen business; witness also another renowned pupil of his: Dinh Gilly, who was never taught deliberately to arch or flatten his tongue, nor did he indulge in this pernicious principle.

Many statements of great singers, like many an adage of the old Italian school, are incomplete, touching sometimes not even the true fringe of the argument; hence the possibility of misconception and distortion by personal elaboration.

Yours faithfully,

E. HERBERT-CAESARI.

43, Mowbray Road, N.W.6, January 20, 1934.

To the Editor of WORLD-RADIO

SIR,—A singer and tenor equally as great as, and perhaps greater than, Jean de Reszke wrote:

"The tongue must be flat in the lower part of the lower jaw; only the tip of the tongue should be used, otherwise the voice will be thick and throaty."

That tenor was Sims Reeves (*The Art of Singing*, p. 16). Why the difference of "opinion"? A vocal physiologist of the first rank, himself possessed of a magnificent tenor voice, was Charles Lunn, who wrote to me on July 8, 1904: "As regards Reeves—he was the greatest singer I ever heard, but I think when he wrote and spoke he, like Jean de Reszke, often attested nonsense."

In point of fact, the base of the tongue, the epiglottis, and the larynx necessarily participate in movement; they are lowest with sombre tone-colour, and highest with bright. The shape assumed by the tongue necessarily alters in accordance with vowel and consonantal sounds. Attempts to force the tongue to remain flat cause rigidity of parts that should remain supple.

Hermetical sealing of the nasal passages does not interfere with the beauty of a well-produced voice. In nasal resonance (which should be carefully distinguished from nasal twang) the air in the cavities above the mouth is thrown into strong vibration by the voice impinging on the central portion of the roof of the mouth.

Yours faithfully,

J. LOUIS ORTON.

Uxbridge, Middlesex, January 25, 1934.

British and Continental Dance Music

To the Editor of WORLD-RADIO

SIR,—I followed the discussion on dance bands with interest, and would like to point out something that most critics of dance bands miss entirely. That is "dance tempo." As a fairly successful amateur dancer, I can safely say that if the majority of bands now broadcasting were installed (one at a time) at a place where people really *dance*, they would learn a thing or two. West End bands "punch" out quickstep after quickstep (labelled foxtrots, etc.), to suit a crowd of diners who just amble round. They are quite incapable of anything else. Hence the "monotonous rhythm" that one writer complains of. Let us hear a real dance band from a real dance hall. I can suggest three that would be a welcome relief from "hot orchestrations." If some of our famous leaders got off their platforms, learnt to dance *and* tried to, we would get some improvement. "Hot" music, like chamber music, is not for the bulk of the public, and should occupy an accordingly small space.

Congratulations on the new WORLD-RADIO.

Yours faithfully,

THOMAS A. ENNOR.

Highgate Road, N.W.5, Jan. 22, 1934.

To the Editor of WORLD-RADIO

SIR,—May I be permitted to add the opinion of one, who, although a non-dancer, can enjoy good dance music, to the controversy on this subject in WORLD-RADIO recently. Personally, my objection to our dance bands is the so-called "crooner" with his, or her, chorus in nearly every tune, and the too great a prominence given to saxophones and trumpets. One night recently, when our stations had just closed down, I was idly twiddling the knobs when I came on Leipzig playing a waltz, which, to my mind, was just perfect; no "sax.," no crooner, but the real waltz time and melody.

Some time ago, when the German programmes were more reliable, I used to listen to Heilsberg regularly whenever I saw a dance

music programme by their station orchestra, and I defy anybody to say that they had not got our bands beaten to a frazzle for melody and rhythm. In fact, the only points I can give our bands are for comedy numbers, in which they do come out top. I think a lot of the horrible noises they make are through trying to ape the American style, instead of trying to develop an essentially English one.

Yours faithfully,

P. C. PATTENDEN.

Tenterden, Kent. January 20, 1934

A Special Trans-Atlantic Broadcast

To the Editor of WORLD-RADIO

SIR,—WTIC, Hartford, Conn., will broadcast a DX special programme dedicated to the International DXers Alliance at midnight on February 9. The programme will be received in Great Britain on February 10 (the morning of Saturday) from 5 a.m. onwards, the programme probably lasting until well past 6 a.m.

At 5 a.m. G.M.T., the WTIC large band, the "Merry Madcaps," will open with "California, here I come," this portion being dedicated to the Pacific Coast listeners, followed by portions for the Rocky Mountain, the Mississippi, and East Coast members.

Then will follow portions for the Canadian and Maritime members, after which the station will shift to South America with appropriate selections.

Following this will be the portions for members in Ireland, England, Scotland, Wales, Scandinavia, France, Belgium, Germany, and Spain.

As WTIC is one of the most consistent U.S.A. stations, this DX special programme should be well received by any listeners who care to tune in to WTIC at 5 a.m. Saturday, February 10.

Yours faithfully,

F. WISEMAN.

Newcastle-on-Tyne, January 26, 1934.

Trans-Atlantic Reception

To the Editor of WORLD-RADIO

SIR,—In case it may be of interest to your Irish readers of WORLD-RADIO, I would like to draw to their notice the fine reception which can be had from U.S.A. every night after eleven o'clock. On January 24 I tuned in twenty-six stations, and half of those at good loudspeaker strength. The surprising thing about the reception is the quality and very little fading. The programmes are very bright and entertaining, Irish music being very popular. The following stations were received at good L.S. strength: WEF, WOR, CKAC, KMMJ, WLW, WABC, WKAQ, WJZ, KGO, WENR, WBT, WNAC, WTAM, WHAS, XEW, WCSH, LR3, LR5, WIOD, LR9, WCAU. The set I use is a home-constructed battery one variable-mu S.G.—detector—Class B output. Irish readers, if you try for those stations, you will get a big thrill.

Yours faithfully,

JIM KEARNEY.

Malbay, Co. Clare, January 26, 1934.

To the Editor of WORLD-RADIO

SIR,—Having been compelled to remain up several nights during this past fortnight owing to illness in the family, I decided to test my set. On January 16, I tuned in, at 2.30 a.m., and received with splendid strength WCAU. At 2.50 a.m., I received Atlantic City, WPJ, on 275 m. Again good reception. About 3.50 a.m. I received WBCA on 308 m., giving out news bulletin, also items concerning President Roosevelt's speech that day. Also many other stations. Reception was splendid and no fading whatever. I might mention it was a good night. My set is a commercial four-valve all-mains set.

Yours faithfully,

W. ELLIOTT.

6, Mulcaster Street, Jersey, C.I.,

Jan. 20, 1934

New German Dance Music

AN article entitled "Broadcast Rhythm," published in the issue of WORLD-RADIO dated December 29, has caused a certain amount of comment from readers in Britain, judging by the correspondence columns, and has also been carefully studied in Germany.

It is quite true that "hot jazz" was never very popular in Germany, except among a small circle of people. The Germans, on the other hand, greatly admire the style in presentation of bands such as those of Henry Hall and Ambrose, which they occasionally hear. But I think it is wise to stress the word "occasionally"—it is to be doubted whether the British style of playing dance music would ever be as popular in Germany as it is in England.

The first reaction to the National Socialist revolution caused dance bands in Germany to devote a large part of their repertoires to march tunes. This, however, was only a transitory phase—the listener to the Berlin Funkstunde's late night dance music transmissions finds little or no difference from the style to that of pre-revolution days. Certain composers are not played, but others have taken their places, and neither the lyrics nor the music of the tunes are one whit better than before. But these relays from popular cafés must not be confounded with what is now termed in Germany "German dance music."*

There is a certain school of thought which hopes to revive the interest of more serious composers in music for dancing. The new school of thought in Germany, which is strongly repre-

* A programme of "New German Dance Music" from Cologne will be broadcast by the German stations on Thursday, February 8, at 6.0 p.m. G.M.T.

sented at the German national station, the Deutschlandsender, intends to proceed by degrees. As a beginning, new orchestrations of existing tunes will be made, which, at some later date, will be made accessible to the other German broadcasting stations, so that listeners will gradually become used to hearing a different kind of dance music. "Different" does not mean the exclusion of the saxophone and the return to a string orchestra. The present aim is to use the saxophone more as a solo instrument and not so much as a general accompaniment. So far as the numbers are concerned, the idea is to bring out a melody which goes through the whole dance tune without constant repetitions.

At the Deutschlandsender I was told that dance music as it was played a year ago in Germany, and as it is still played in the cafés, had got into a rut; that it had become unenthusiastic and even boring. By the adoption of the new style of orchestrations, and by encouraging young composers who have a sense of melody and rhythm and a thorough technical knowledge of music, composition, and instrumentation, it is hoped to produce better music. It is hoped, too, that in future the author of a dance tune will be able to write it down himself and even to orchestrate it. The Deutschlandsender pointed out that in former days it often happened that one fox-trot was written by as many as five or six people; one having whistled the tune, the second had written it down; the third had orchestrated it; the fourth had adapted it; the fifth and sixth had written the lyrics!

A. A. G.

Gramophone Broadcasts

By "RECORDER"

NOT long ago, the "In Town To-night" series brought Galli-Curci to the microphone. Many listeners must have heard the famous coloratura soprano sing in reality, and still more through the medium of the gramophone record, but few can have heard the singer's speaking voice. This particular occasion was unique, not because Galli-Curci sang, but because she did not sing, and instead, played one of her own recordings while discussing it at the same time, so that—as she herself put it—the English listener was thus able to hear her talk and sing at the same moment!

Saturday evenings on the Continent are usually rich in recorded music, and that Saturday was no exception, for, after hearing Galli-Curci, I went over to Budapest for a concert which included an aria from *Sadko* and a duet from Thomas's *Hamlet*. That ended, a turn of the dials was sufficient to bring recorded dance music from Vienna, chiefly English; and a change to the long waves a short while later gave the Deutschlandsender transmitting a concert of Swiss peasant music, orchestras "Champêtre," choirs, and yodelling discs.

The Belgian Transmitters

Since the change-over to the Lucerne Plan, the two Belgian stations, Brussels Nos. 1 and 2, have been coming in excellently, and because they give such good gramophone fare, they occupy a high place in my log book. On a recent Monday the No. 1 station gave a concert which included Tchaikovsky's *Sérénade Melancolique* and a fine recording of Coleridge-Taylor's *Christmas Overture* as played by the B.B.C. Wireless Symphony Orchestra, directed by Percy Pitt.

A curious thing happened on the following Friday. Brussels No. 2 advertised a recorded version of Mozart's "Jupiter" Symphony,

but on tuning in this station I was surprised to hear the final bars of a Beethoven Symphony. An hour later, however, I found Brussels No. 1 transmitting the missing recorded version of the "Jupiter."



Galli-Curci

Musical Comparisons

Mr. Philip Thornton's "Musical Switchback" series seems to have set other people thinking about the similarity in different musical items, for on the Saturday of the week under review North Regional broadcast a programme in which, in a delightfully informal way, two people discussed these similarities, and used a gramophone to give examples.

I was astonished to discover that Gounod's *Ave Maria* and a Bach Prelude were practically identical, while modern dance airs, such as "The Last Round-Up," appear to have been repeated *ad infinitum*.

In the morning "Musical Switchback" broadcast by Mr. Thornton, there was an intriguing comparison between "A Policeman's Lot is not a Happy One" and a song written by a little girl aged eight, years before Sullivan's time. Another highly amusing comparison was that of a West African native dance with a jumble of vocal sounds made by a child while being wheeled in its perambulator through Hyde Park and jotted down by the speaker, the *leit motif* of this last impromptu air being: "I wonder what Nanny will have for tea!"

Here is a tip for those of you who like gramophone concerts in the early mornings. Between 7 and 8 a.m. several of the German stations broadcast excellent gramophone recitals, and at this hour, strangely enough, the German transmitters seem to come in better than they do at night.

IN NEXT WEEK'S PROGRAMMES

THE BRUSSELS CONCERT

Relayed to Europe

ON Wednesday evening, Brussels No. 1 is to broadcast a programme which a number of other European stations will relay. As usual in such international programmes, the authorities are relying on the music of their own country, but in this case they are not looking back farther than the end of last century. The conductor is Désiré Defauw, one whose work on behalf of Belgian music is already sure of an honoured place. The violin soloist, Henry Wagemans, is another musician who has for many years worthily upheld the best traditions of his own country's art, although for twenty-five years he was better known at Monte Carlo than in Belgium. He is to play a concerto by Vieuxtemps, himself an illustrious Belgian violinist of a former age, one of whose claims to an illustrious place was that he was Ysaye's master. The other soloist is Madame Mit Scapus-van Dommelen, who is to play a specially interesting piece, a concerto by the Belgian master, De Boeck, specially written for a new form of pianoforte with double keyboard. The instrument itself is of Belgian origin, invented by the engineer, Pierre Hans. The novel feature of the instrument is that the second keyboard, just above the first, is pitched a semitone higher, replacing the black notes of the old single keyboard. Many advantages, from the player's point of view, are claimed for the instrument, and it is obviously bound to make some difficulties easier to overcome. The programme begins with a symphony by Marcel Poot. Born in Brussels in 1901, he is one of the most energetic of Belgium's young men, full of enthusiasm and fresh ideas. He was among the first to compose music specially for wireless. His symphony, which was played for the first time in November, 1931, at the Philharmonic Concert in Brussels, has already a place of its own among the successes of recent times. It is, broadly speaking, in the classical form, except that the slow movement and the minuet are run together. After the concerto by De Boeck comes an Adagio for string orchestra by Lekeu, the brilliant pupil of César Franck, who died at the age of only twenty-four, but who made it clear, even in so short a life, that he was a musician of outstanding gifts. After the violin concerto by Vieuxtemps, the programme closes with César Franck's symphonic poem, *The Accursed Huntsman*.

Verdi's Requiem

VERDI'S *Requiem*, to be broadcast from Stockholm on Tuesday, February 6, owed its first inception to the death of the composer's predecessor in the domain of Italian opera, Rossini. Verdi proposed that the leading composers of Italy should combine to write a requiem in Rossini's honour. Verdi himself composed the final number—"Libera me"—but the whole project never came to fruition. Some five years later, after the brilliantly successful production of *Aida*, the death of Verdi's friend, the poet Manzoni, turned his thoughts again to a *Requiem*, and he completed the work himself, retaining the original last number. It aroused a good deal of hostile criticism on its appearance. Verdi was known to be no very orthodox Churchman, and it was urged besides, that his manner, founded on, and admirably fitted for, theatrical effect, was by that very fact unsuitable for the most solemn service of the Church. Von Bülow, ardent as always, whether in praise or blame, called the work a "monstrosity," a criticism which induced Brahms to buy a score and study it. He called it a "work of genius," an opinion which von Bülow afterwards came to share. He wrote accord-

ingly to Verdi, proclaiming his earlier mistake with a warm-hearted generosity which earned a like reply from the composer: there was nothing small or mean in Verdi's character. The *Requiem* has long ago been recognised as wholly sincere, as the work of one whose religion was true and devout, whatever his politics may have been. Florid, dramatic, picturesque its music may be; none the less, it is accepted as a reverent setting of the solemn service.

A Cosmopolitan Opéra

AN opera by a German composer who learned his art in Paris and lived there for many years, with an English setting and story, to be sung in Polish, is surely as international a work of art as can be produced. Flotow's *Martha* is to be broadcast by Warsaw, on Monday evening, February 5. The action takes place at Richmond, and the heroine is Lady Harriet Durham, lady-in-waiting to the Queen. She and her friend Nancy, tired of court life, disguise themselves as country girls and go to Richmond Fair, where they allow themselves, in jest, to be hired as maids by the farmer Plunkett and his friend Lionel. They find, however, that their contract must be fulfilled, but their efforts to carry out the duties given to them prove them to be hopelessly inefficient, and they seize the chance presented that same evening by Lord Micklefort, Lady Harriet's cousin and admirer, to escape. In the next act, the two farmers recognise their former maids in the Queen's train at a Royal Hunt, and after further complications the opera ends, as comic opera must do, with wedding bells, Lionel turning out to be a young nobleman himself. A favourite for many years, the opera is not now often played, and listeners may be taken by surprise to hear the song, *The Last Rose of Summer*, in an operatic transmission from Warsaw. Flotow embodied the old song in his score.

Dramatic Broadcasts

It is interesting to note that Radio-Paris is to broadcast Brioux' *Les Hanneçons* on Tuesday, for this may mean that the new administration of the station intends to adopt a bolder line in presenting plays by great French dramatists. Though Brioux is chiefly known for his serious sociological plays, some of his work is much lighter in character, and those who hear *Les Hanneçons* need not fear that they will encounter a weighty "discussion-drama." Another dramatic broadcast is that of *Waterloo*, a new radio play by M. Théo Fleischmann, which will be given by Brussels No. 1 on Saturday. The action begins on the eve of Waterloo, and the dramatist has followed history closely in presenting a vivid account of the last phase of Napoleon's career. The contrasted scenes of the headquarters of Wellington and Napoleon will probably be one of the most striking features of the play.

The Queen of Sheba

LIKE many another of the race to which music owes so much, Goldmark spent his early years in very humble circumstances, and had little chance of education, in music, or in anything else, until his own talent and hard work brought it within his reach. Even after success had come to him, he never lost the faculty of taking pains; stern criticism of his own work went hand in hand always with slow and careful labour. It is known, for instance, that nearly ten years were spent on composing and revising his opera, *The Queen of Sheba*, produced at the Imperial Opera in Vienna in 1875; it is to be broadcast by Budapest, from the Royal Hungarian Opera House, on Tuesday evening, February 6.

Listeners' Verdicts

LAST WEEK'S BEST PROGRAMMES

"In Town To-night"

ONE of the most interesting and delightful features of the week's programmes from Daventry (National) is the Saturday evening broadcast, "In Town To-night," which is always novel, entertaining, and instructive. The method of presentation adds much to its appeal, especially to provincial listeners. First there is Eric Coates's delightful music, then all the noise and bustle of London on a Saturday night comes to our ears, and for a few seconds we stand among the hurrying throngs under the white glare of the arc lights, lifting our eyes to the electric signs and hearing the shouts of newsboys and the hoots of taxis. Then, from that whirl of life, individuals separate themselves—interesting, exciting personalities whom we have read about in the papers, perhaps, and wished we might know better. They seem now to be actually beside us, talking in the most friendly fashion. We hear of endeavour in a hundred different directions, new occupations, new inventions—and all at first hand, which is so much more thrilling than merely reading about them in a newspaper. Also, there is the charm of the unexpected about these broadcasts. If we knew beforehand who was to speak, or what we were going to hear, half the pleasure would be lost. Now it is reminiscent of the child's delight in his Christmas stocking. First comes something lovely, then something amusing, and next—oh, just what I wanted to hear about! So it goes on, and that half-hour on Saturday evening is, for a vast number of listeners, the high-light of the week's broadcasting.

N. M. G.

Dance Music from the Continent

THE earnest discussion which is now being given prominence in WORLD-RADIO's correspondence columns upon the respective merits—or lack of them—of British and Continental dance bands certainly stimulates one's interest in dance music transmissions from abroad. So I, at least, have found. For instance, on Saturday I tuned in dance music from Brussels No. 2, and heard a programme which was excellent evidence for the Continental band enthusiasts. A tango was being played, and played with a rhythmic swing which was thoroughly exhilarating. There was a crispness in the band's attack which spoke of careful and arduous rehearsal, and the tempo was splendidly maintained. Then followed a quick foxtrot, in which the band's attack was heard to even better advantage. In it, too, the solo choruses seemed more prominent; a clarinet played the usual variations on the melody with a skill, which, if they heard it, must have made the hearts of WORLD-RADIO's pro-Continental readers rejoice! Mention should also be made of the drumming during that number. The ingenuity and "snap" in the "breaks," the sense of competence in the beats, were a delight to one's rhythmic sense and a tribute to the technique of the player responsible. But the number, from the introduction to the polished and satisfying climax, was rendered with an excellence typical of the programme as a whole. Tribute should be paid, too, to the satisfactory balance; yet careful listening proved that each component of the band was being faithfully transmitted. My one regret was that I was unable to catch the name of the dance orchestra responsible for one of last week's best programmes.

W. B.

Readers are invited to submit short commentaries on outstanding broadcast items of the previous week. Contributions should not exceed 350 words, and payment will be made for those which are published.

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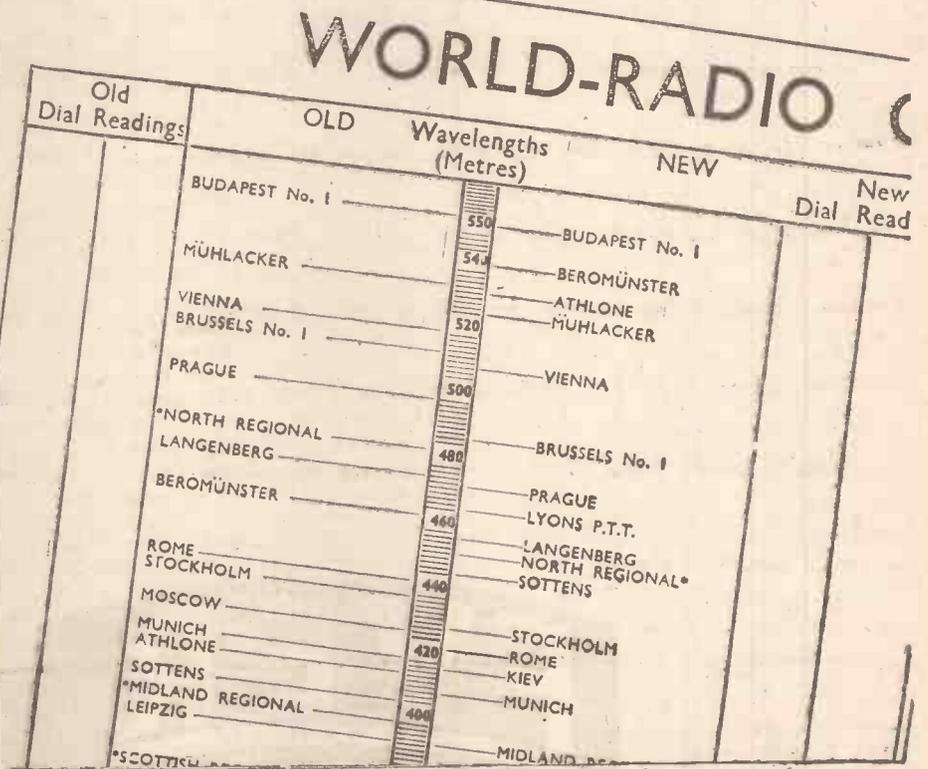
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- Listeners who wish to obtain a copy of this invaluable Chart can do so by buying a copy of this week's "TIT-BITS."



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FOREIGN BROADCASTING NEWS

GERMAN CHANGE OF POLICY

- Hilversum Temporarily Silenced
- Improving Listening Conditions in France
- Portuguese Radio Club's 5-kW Transmitter

Programme Groups Dissolved

(From our Acting Berlin Correspondent)

On January 12 (as was reported in the issue of *WORLD-RADIO* dated January 19), the Reichs-Rundfunk-Gesellschaft issued a *communiqué* which stated that the West German Programme Group had been dissolved. The group was formed in October of last year, and was officially inaugurated by Herr Hadamovsky, the Director of German broadcasting. The principal effect of this decision will be that, although the German stations will continue to exchange programmes, they will not be attached to definite groups, and such exchanges may not be quite as frequent as hitherto.

The *communiqué* also stated that the *Intendants* (programme directors) of the various stations are again to be wholly responsible for the programmes. Previously, the *Intendant* acted only as "chargé d'affaires" of the Reichs-sendeleiter (the National Director of Transmissions), in whom rested the ultimate responsibility. Now, however, each *Intendant* will be responsible for all material broadcast from his own station.

I learn from a well-informed source that the dissolution of the only programme group which had been officially announced must be looked upon as a temporary measure. Practical experience of the operation of programme groups in Germany, it is considered, has now been gained, and that practical experience will form the basis of the ultimate reorganisation of German broadcasting in the new Reich.

AUSTRIA

Ex-Subscribers who Miss Listening

(From our Vienna Correspondent)

Although, during the first fortnight of January, there were 21,941 new subscribers to Ravag (more than two and a half times as many as during the same period last year) there were no fewer than 66,033 listeners who terminated their contracts at the end of 1933. The campaign against "pirate" listeners continues with unabated vigour, and, of course, is chiefly responsible for the many new registrations. It is interesting to learn that many of those who did not renew their subscriptions have already found that, having become accustomed to broadcasting, they cannot do without it, and have re-registered!

FRANCE

(From our Paris Correspondent)

"Grand Season" Broadcasts

In reply to a letter from the Minister of Education concerning the representation of art during the "Grand Season of Paris," the Minister for Posts, Telegraphs, and Telephones has replied that he has given instructions for the broadcasting by the State stations of two comic operas, two oratorios, two symphony concerts, two operas, and two concerts of chamber music between Easter and July 4.

Campaign against Electrical Interference

On December 1 last a decree was passed for the compulsory prevention of electrical interference with wireless reception. Although the decree does not come into full operation until April 1, the Minister for Posts, Telegraphs, and Telephones has just appointed the Commission charged with the execution of its terms. M. Pellenic, director of broadcasting, is one of the most prominent members of the Commission, which consists of representatives of the Ministry of Posts, Telegraphs, and Telephones, the

Ministry of Public Works, the National Laboratory of Radio-Electricity, manufacturers of electrical material and installations, wireless manufacturers, and listeners.

GERMANY

(From our Acting Berlin Correspondent)

Hamburg's Transmissions Curtailed

It is officially announced that, until February 11, the new Hamburg high-power station will begin broadcasting each day only at noon. It had previously been announced that, from January 22-26, the station would be closed down during the day time. During the period of these curtailed hours of transmission, the old Hamburg station and the Kiel relay station (on the Gleiwitz wavelength, 243.7 metres) radiate the North German programme. The German Post Office states that a certain amount of work on the new station still remains to be done.

The Leipzig Fire

It will be remembered that one of the two wooden aerial masts of the Leipzig broadcasting station caught fire on Sunday evening, January 14. An official *communiqué* now states that the fire consisted merely of a small glow in the region of one of the high-frequency chokes in the down-lead from the lightning conductor on one of the masts. The choke had become defective, and had ignited the wood of the mast in its immediate neighbourhood. It was necessary to switch off the transmitter, to permit two station engineers to climb the ladder and extinguish the fire, which might have become serious but for the prompt action of the station staff. The fire had been smothered by the time the Leipzig fire brigade arrived.

Synchronisation of Augsburg with Nürnberg

The synchronised working of Nürnberg and Dresden, each with different programmes, has not proved practicable, despite the very low power of the Dresden station. The German Post Office, therefore, has decided to synchronise the Augsburg station with Nürnberg on Nürnberg's present wavelength, and to operate Dresden on 204.8 metres, the shortest German wavelength, previously used by Augsburg. The change-over was effected on January 22 and 23. It is interesting to note that a delay of twenty-four hours was necessary to allow the authorities to transfer to Dresden the quartz crystal used at Augsburg and to instal it at the transmitter there. Both Nürnberg and Augsburg, of course, take their programmes from Munich.

Results of Baden-Baden Experiment

As has already been reported, the German Post Office recently carried out experiments in Baden-Baden in connexion with the elimination of man-made interference with wireless reception. An official *Communiqué* which has just been issued by the German Post Office states that the work—which was carried out in co-operation with the Reichsrundfunkammer, the Municipal Administration, and the wireless industry—was completed in the middle of December last. According to the *communiqué*, the experiment has shown that, from a technical point of view, it should not be difficult to reduce man-made interference to a bearable minimum. A law for the protection of broadcasting from interference, however, is considered necessary, and the German Post Office, together with the Ministry for the Enlightenment of the People and Propaganda and the Reichsrundfunkammer, are at present engaged in drafting a Broadcasting Anti-Interference Bill.

HOLLAND

V.A.R.A. Deprived of Allotted Time

(From our Correspondent at The Hague)
As a punishment for the three minutes' silence observed by the Socialist society, V.A.R.A., on the occasion of the execution of van der Lubbe (the Dutchman who was condemned to death at the Reichstag fire trial) the Radio Council deprived the society of the time allotted to it on Saturday, January 27. With the exception of the short period granted to the Liberal Protestant Society for the morning service, the whole of that day was allotted to the V.A.R.A., and the Council's decision meant that Hilversum would be silent from the morning onwards. The rule is that if, for any reason, one licensed society is deprived of its allotted time, or is unable to make use of it, the other societies using the same station shall divide such time between them. As the A.V.R.O. and N.C.R.V., however, agreed with the V.A.R.A. that the Council's punishment was either inappropriate or too severe, they declined to take advantage of the rule. The Radio Council then relented to some extent, and agreed that the V.A.R.A. might relay or broadcast foreign programmes, on the condition that no speeches of any kind were made; but this met with no response from the Socialists. Consequently, on January 27 Hilversum remained silent during most of the day.

PORTUGAL

The Parede Station

In connexion with the article entitled "Progress in Portugal," which appeared in the issue of *WORLD-RADIO* dated January 19, it is officially stated that the station at Parede, sixteen miles west of Lisbon, is now transmitting on the wavelength allotted to it in the Lucerne Plan, i.e., 291 metres (1,031 kc/s). This station—which is owned by the Portuguese Radio Club and was designed and built by the Club's members—operates with a power of 5 kW in the aerial; its call-sign is CT1GL. In addition to the transmitting and power-generating plant, the premises contain two studios, a library, workshop, and offices for the personnel of the station. Reports of reception will be welcomed, and should be sent to the Radio Club Portuguese, Parede (Cascoes), Portugal. We are also informed that the 20-kW Government transmitter now under construction is situated at Barcarena; the studio premises, as already reported, are in Lisbon.

SWITZERLAND

(From a Correspondent)

300,000 Registered Listeners

Switzerland's ambition to register 300,000 listeners before the end of 1933 was realised, the actual number on December 31 being 300,051. At the end of 1932 the number of registered sets was 231,400; the increase during 1933, therefore, being 68,651.

Programmes for the Young Listener

A new and interesting feature of the programmes of the Lucerne and Geneva stations is a series of broadcasts specially intended for young listeners. Among the forthcoming programmes in this series are readings from his own works by the well-known Swiss writer, C. F. Ramuz, and a broadcast by Swiss schoolchildren, during which popular songs in the three national languages will be sung. Other subjects for programmes include the activities of a railway station, the journey of a letter, life at an aerodrome, the spider and its web, travel stories, and politeness and tact.

FOREIGN LANGUAGES

GERMAN

Tuesdays, 6.50-7.20 p.m. (National Programme)
Translation of Poem, Pamphlet, Page 20—
"Der römische Brunnen"

The Roman Fountain

Up gushes the jet and falling pours
and fills the round (form) of the marble basin
which, veiling itself (hiding its rim), overflows
into the bottom of a second basin;
the second gives—growing too rich—
welling over, its flood to the third,
and each receives and gives at the same time
and flows, and rests.

To All Listeners

(List of changes from Sack and Thompson's
Reading Text, which are found in the Lingua-
phone Records; continued from WORLD-
RADIO, January 26):—

Record No. 8, Lesson 8, line 3: "Das Weter" instead of "Das Weter," the latter being a misprint; line 15: "-paste" instead of "-pasta." Both forms are correct, but "-paste" sounds less foreign to German ears.

Record No. 10, Lesson 10, line 5: "Dachkammer" as an alternative to "Dachraum," which latter refers to the whole space under the roof rather than to any partitioned room which is called "Dachkammer" (attic, cp. Speisekammer, pantry). Lines 6 and 14: "Gesellschaftsanzug" instead of "Tanzanzug"; lines 8 and 15: "Strassenanzug" (lounge suit) instead of "Gesellschaftsanzug." "Gesellschaftsanzug" replaces "Tanzanzug," as being a more general word which covers both, dinner-jacket (German: der Smoking) and full evening dress (German: der Frack), and also the English morning coat (German: der Cutaway). Moreover "Gesellschaftsanzug" may apply to any dark suit which might be worn at less formal evening functions. Lines 12 and 20: "Schlafanzug" (masc.) instead of "Pyjama" (neut.), "Schlafanzug" being a good German equivalent for the Persian word "Pyjama." Lines 13 and 20: "die Pantoffel" instead of "die Pantoffeln." The latter form, although in common use in some districts in Germany, is not generally regarded as correct (sing. der Pantoffel). Line 18: "Nun fange ich an zu packen" instead of "Ich beginne jetzt zu packen," "anfangen" (to begin, verb with stressed separable prefix) being more colloquial than "beginnen." The adverb "nun" (now) introduces here something that follows a preceding action or event: having laid out everything on the bed, I may now start packing. "Jetzt" in this case would not be wrong, but "nun" is more applicable, as it implies more than a mere point of time. "Jetzt" renders the simple adverb of time "now," i.e., "at present" or "at the moment." Line 23: "Zahnbürste und -paste" instead of "Zahnbürste und Pasta" (See above, Lesson 8, line 15).

Translation of the Reading-Text of Lesson 11, page 41, in the "Reader."

"Die Mahlzeiten" (Meals)

The first meal is breakfast. The servant lays the table at seven or eight o'clock. She puts a cup and a small plate at each place and lays a spoon and a knife beside them (or it). By each cup there is a napkin, too. In Germany breakfast is simpler than in England. There is coffee, milk, bread, butter and jam (called in German Marmelade or Konfitüre). Often there are rolls on the table too, but there are (seldom =) not often eggs. The second meal, dinner (lit., midday-meal), is the principal meal. People dine ("zu Mittag essen," to dine) at one o'clock (or: dinner is at one o'clock). The servant lays forks, knives and spoons (on the table) and

puts a plate at each place, and bread, salt, pepper and mustard in the middle of the table. There are usually three courses: first a soup, then meat with potatoes and vegetables and last (or finally, lastly) a sweet (after-)course, stewed fruit, pudding or fruit cake. In Germany the lady of the house carves the meat, or it comes to the table (ready) carved. The lady of the house passes the dishes of meat, potatoes and vegetables, and everyone helps himself. When (or: if) the family has a guest the meal is not so simple, of course. There is an hors d'œuvre, and the soup is followed by fish (or: after the soup comes fish). Wine is taken with it.

At four or five o'clock many people take a light (between-)meal. There is tea (with milk or cream and sugar), or coffee, and rolls and butter and jam with it. On Sundays people buy cake.

The last meal is supper. People generally have supper at seven o'clock. Supper is simpler than dinner. Often there is only tea, (sliced) cold meat (or sausage cut thin), or eggs and bread and butter. Children often have porridge.

Every country has its special dishes. A favourite dish in Germany is Sauerkraut (neuter, pickled white cabbage) with bacon. People have it only in winter. Austria is famous for its sweet dishes.

Lesson 11. Questions, pages 42-43.—In future I shall not as a rule give the answers to the questions which follow the Reading Text in the Textbook. I hope, however, that my listeners will still attend to them by writing out their answers and then correcting them by comparison with the Reading Text.

NOTE.—Breakfast is "das Frühstück"; the expression "Morgenessen" is very unusual. The second question should read: "Um wieviel Uhr nimmt man das Frühstück ein? or: . . . frühstückt man?" Infinitive: frühstücken, to breakfast, i.e., to take one's breakfast. The other expressions: "zu Mittag essen," "zu Abend essen" are quite correct. Besides the word "der Rahm" for cream, one very often hears "die Sahne," e.g., "die Schlagsahne," whipped cream.

Exercise A, page 44

NOTE.—In the following the numbers in parentheses do not refer to the "Groups" of nouns in the Grammar and Reader, but to the "Classes" as they are found in the List of Plural Formation on pages 17-18 of the Pamphlet.

Masculine nouns: des Wirtes (1a), die Wirte; Gastes (1a), Gäste; des Jungen (4), die Jungen; Tisches (1a), Tische; Stuhles (1a), Stühle; Kalenders (3a), Kalender; Mannes (2a), Männer; des Knaben (4), die Knaben; Armes (1a), Arme; Fingers (3a), Finger; Fusses (1a), Füße; Körpers (3a), Körper; Satzes (1a), Sätze; Fehlers (3a), Fehler; Schwammes (1a), Schwämme; Kamins (1a) Kamine.

Neuter nouns: des Kindes (2b), die Kinder; Mädchens (3b), Mädchen; Haares (1b), Haare; Ohres (7), Ohren; Auges (7), Augen; Daches (2b), Dächer (der Kamin, masc., not neuter, see above); Beetes (1b), Beete; Wortes (2b), Wörter; Buches (2b), Bücher; Heftes (1b), Hefte.

Feminine nouns: der Statue (6a), die Statuen; Hand (5), Hände; Schüssels (6a), Schüsseln; Wurst (5), Würste; Tasse (6a), Tassen; Hausfrau (6b, compound), Hausfrauen; Dame (6a), Damen; Freundin (6a), Freundinnen.

B: die Uhren (6b), Stunden (6a), Minuten (6a), Abende (1a), Kleider (2b), Anzüge (1a), Hosen (6a), Schuhe (1a), Röcke (1a), Hemden (7), Köpfe (1a), Körper (3a), Augen (7), Ohren (7), Haare (1b), Väter (3a), Mütter (3c), Söhne (1a), Töchter (3c), Brüder (3a), Schwestern (6a), Familien (6a), Vettern (7), Kusinen (6a), Onkel (3a), Tanten (6a), Mahlzeiten (6b, compound), Gänge (1a), Speisen (6a), Würste (5), Eier (2b), Brote (1b) (loaves).

(To be continued in WORLD-RADIO, February 9)

MAX KROEMER.

SPANISH

Thursdays, 6.50-7.20 p.m. (National Programme)

Notas Linguísticas

Quando el adverbio condicional "Si" (if) rige el indicativo en vez del subjuntivo.

"... que si ganaba la victoria haría construir un monasterio. . . . etc."

Ejemplo tomado de la traducción al final del artículo en W.R. del 8 de dic.

Ya han visto Vds en mi folleto (p. 13) que (a) en oraciones condicionales cuando la apódosis (o resultado) está en el futuro de indicativo, la prótasis (o condición) introducida por "si," lleva el indicativo: si viene/le verá; si me llama/iré. (b) Pero que si la apódosis está en el condicional de indicativo, la prótasis llevará el subjuntivo imperfecto: si viniese / le vería; si me lo diese/ se lo agradecería mucho. Pues bien, estas son las dos reglas elementales que deben practicarse antes de estudiar las complicaciones y reglas menos corrientes. Pero en el primer ejemplo que cito, que es el que tenemos que analizar aquí, se verá que la apódosis está en el condicional de indicativo, y por consiguiente el verbo en la prótasis parece reclamar el imperfecto de subjuntivo, según la regla (b), en vez del indicativo, que lleva, ¿no? En efecto, admite además el subjuntivo; se podría decir: "que si ganase (o ganara) la victoria . . . etc." pero el hecho es que en frases como ésta, es más corriente emplear el imperfecto de indicativo.

Las explicaciones que se encuentran en las gramáticas no satisfacen a los alumnos. He aquí (*here is*) pues, una teoría que a lo menos tiene valor práctico —

Todo depende de si la frase es de oración directa (*Direct Speech*) o de oración indirecta (*Reported Speech*). En frases de oración directa, que son las más corrientes, aplican las reglas que se hallan en el folleto (p. 13). Pero en frases de oración indirecta, es donde se suele emplear el imperfecto de indicativo en la prótasis con el condicional de indicativo en la apódosis, porque si se analiza la frase, resulta que corresponde en realidad, a la regla (a), sólo que se citan las palabras (o el deseo) de otra persona. Así pues, en el ejemplo susodicho, podemos suponer que Felipe II dijo . . . "si gano la victoria/haré construir . . . etc." lo cual corresponde a la regla (a); ¿verdad? Conque al citar su propósito (*intention*) se conserva la misma construcción, pero se cambia el presente de indicativo por el imperfecto de indicativo en la prótasis, puesto que se cita algo ya enunciado: "La razón que movió a Felipe II a desperdiciar tanto dinero, fué un voto que había hecho, en la batalla de San Quintín, que si ganaba la victoria haría construir un monasterio sin par en el mundo." (Folleto. P.13)

Con algunos ejemplos más quedará aclarada la dificultad:—

Oración directa: regla (a) si vas a la comida mañana/ te presentaré a mis amigos. Oración indirecta: Juan me dijo, que si iba a la comida mañana/ me presentaría a sus amigos.

Oración directa: Si no recibo carta suya hoy/, saldré para Madrid mañana. Oración indirecta: José nos advirtió, que si no recibía carta suya hoy/ saldría para Madrid mañana. —No siendo la frase de oración indirecta, se aplica la regla (b) Si no recibiera carta suya hoy/, saldría para Madrid mañana.

Traducción del trozo de prosa en el folleto, página 17.

VELÁZQUEZ, 1599-1660

En cuanto a la técnica, fué tal vez, el pintor más grande que el mundo haya visto jamás. Pintaba Velázquez, no sólo individuos, sino una sociedad entera, una época entera. "Ante (1) una obra de Velázquez," escribió Henri Regnault "me parece (2) estar mirando la realidad por una ventana abierta." Escogió (3)

Velázquez sus modelos de entre el robusto populacho madrileño, que atraía (4) también a Murillo, cuando se cansaba de vírgenes y santos. Velázquez, pintor de una corte anémica, a veces se apartaba de (5) ella, prefiriendo los tipos del pueblo (5) donde hallaba no sólo la salud física, sino una alegría del vivir, que reflejaba (6) la suya. (S. Reinach.)

1. *Antes for time, ante for place or subject matter.* 2. "I feel" cannot be translated literally here. One could say: *Es como si estuviera mirando.* . . . 3. *Escogió* (he chose) seems more suited than *tomó* here. 4. The Imperfect, because it denotes a habitual action. 5. "he turned from it occasionally to the people . . ." must be translated freely as above. A literal translation would be unsuitable. 6. There is no verb "to echo" in Spanish, so I suggest another similar metaphor *reflejaba*. One could say: *que era eco de la suya*, but it does not seem such a satisfactory ending.

MARIÁ F. DE LAGUNA.

ITALIAN

Esercizi linguistici italiani

TRADUZIONE del brano precedente :

Ahimè, la disgrazia che pesava più grave su quei nostri eroi delle Lettere non era la mancanza d'un'organizzazione di letterati, ma qualcosa di ben più profondo; dalla quale, invero, questa e tante altre disgrazie di uomini di Lettere, e di tutti gli uomini, sono scaturite come dalla loro sorgente naturale. Che il nostro eroe come uomo di Lettere avesse da viaggiare senza via maestra, senza compagni, attraverso a un caos inorganico, e da lasciarsi la sua vita e le sue facoltà come un parziale contributo alla ricerca del modo d'aprirsi una via in mezzo a quel caos: a questo, se la sue stesse facoltà non l'avessero tanto perversito e paralizzato, egli si sarebbe potuto rassegnare, considerandolo come il comune destino degli eroi. La sua fatale sciagura fu la *paralisi spirituale*, così la possiamo chiamare, dell'epoca alla quale apparteneva la sua vita; per cui anche la sua vita, checchè egli facesse, era a mezzo paralizzata! Il decimottavo fu un secolo scettico, e in questa breve parola c'è tutto un vaso di Pandora di miserie. Scetticismo non significa dubbio intellettuale soltanto, ma anche dubbio morale; tutte le sorte d'infedeltà, d'insincerità, di paralisi spirituale. Forse solo in pochi, che si potrebbero nominare dacchè il mondo cominciò, fu la vita eroica più difficile. Quella non fu un'epoca di fede—un'età d'eroi. Alla possibilità stessa dell'eroismo era stata fatta, per dir così, formale rinunzia nelle menti di tutti. L'eroismo se n'era andato per sempre: la volgarità, il formalismo e la mediocrità eran venute per sempre. L'età dei miracoli era stata, o forse non era mai stata, ma certo non esisteva più. Un mondo vuoto, dove la meraviglia, la grandezza, la divinità, non potevan dimorare: in una parola, un mondo senza Dio.—

Osservazioni:—

"Ahimè" è un'esclamazione frequente, sia nel linguaggio familiare che in quello letterario.—*Evil* si potrebbe rendere con "male," "malanno," "guaio," "sfortuna."—*Press* sarebbe, letteralmente, "premere"; ma qui ha il senso di "gravare," "pesare."—*Put up with* è "rassegnarsi," "adattarsi."—*Pushing a highway through it*, è quel che diciamo solitamente "aprirsi una via". C'è anche una frase idiomatica simile in "farsi strada."—Non possiamo tradurre letteralmente in *which his life lay* con "in cui la sua vita giaceva," perchè una vita non "giace" in un'epoca.—Invece di "checchè egli facesse" si potrebbe dire "comunque facesse," "qualunque cosa facesse."—"Paralizzata a mezzo"="mezzo paralizzata."—Abbiamo preferito alla proposizione relativa "nella quale breve parola" (in which little

word) la proposizione coordinata "e in questa ecc."—Tra parentesi, ci è sfuggito, nella correzione delle bozze, un errore di stampa: si deve togliere il punto e virgola fra "intellectual" e "Doubt."—*Specify* si traduce di solito con "specificare"; ma nel nostro caso non andrebbe bene perchè non si può dire "specificare delle persone"; si specificano cose, idee, fatti, non uomini, giacchè gli uomini appartengono già alla stessa specie.—*Abnegated* sarebbe pedanteria e ricatezza tradurlo con "abnegata." La parola "abnegazione" esiste ed ha lo stesso significato che in inglese; ma come verbo è di uso rarissimo, e, comunque, nel nostro caso sarebbe fuor di luogo.

Vediamo un brano di Coleridge (*Biographia Literaria*):—

To those defects which, as appears by the extracts, are only occasional, I may oppose, with far less fear of encountering the dissent of any candid and intelligent reader, the following (for the most part correspondent) excellencies. First, an austere purity of language both grammatically and logically; in short, a perfect appropriateness of the words to the meaning. Of how high value I deem this, and how particularly estimable I hold the example at the present day, has been already stated: and in part, too, the reasons on which I ground both the moral and intellectual importance of habituating ourselves to a strict accuracy of expression. It is noticeable, how limited an acquaintance with the masterpieces of art will suffice to form a correct and even a sensitive taste, where none but masterpieces have been seen and admired; while on the other hand, the most correct notions, and the widest acquaintance with the works of excellence of all ages and countries, will not perfectly secure us against the contagious familiarity with the far more numerous offsprings of tastelessness or of a perverted taste. If this be the case, as it notoriously is, with the arts of music and painting, much more difficult will it be, to avoid the infection of multiplied and daily examples in the practices of an art, which uses words, and words only, as its instruments. In poetry, in which every line, every phrase may pass the ordeal of deliberation and deliberate choice, it is possible, and barely possible, to attain that *ultimatum*, which I have ventured to propose as the infallible test of a blameless style; namely: its *untranslatatleness* in words of the same language without injury to the meaning. Be it observed, however, that I include in the meaning of a word not only its correspondent object, but likewise all the associations which it recalls. For language is framed to convey, not the object alone, but likewise the character, mood and intentions of the person who is representing it.

Note.—*Ultimatum*=ultimo perfezione.—*Untranslatatleness*=intraducibilità.—Per tradurre bene questo brano si dovrà por mente al preciso significato che il grande Critico voleva esprimere. Stiano in guardia i lettori contro l'apparente facilità delle parole e delle frasi.

D. PETTOELLO.

Esperanto Transmissions

Sunday—Lille, 9.30 a.m., Course: News. Lyon-la-Doua, 9.40 p.m., Course. Tuesday—Huizen, 6.20 p.m., Course. Tallinn, 7 p.m., News. Leningrad, 8.30 p.m., Literaturo—Moskvaj verkistoj. Wednesday—Warsaw, etc., 9 p.m., Talk. Vienna, etc., 9.5 p.m., "Karnevalaj kutimoj en Wien" (R. M. Frey). Thursday—Paris, Limoges, Alpes-Grenoble, 5.45 p.m., Course: Talk. Kaunas, 8 p.m., Talk. Friday—Sottens, 5.30 p.m., Course. Radio-Côte d'Azur, 8.15 p.m., Course. Leningrad, 8.30 p.m., "Atingoj de la scienco en U.S.S.R." Saturday—Tour Eiffel, 3.45 p.m., "Turismo." Brno, 4.15 p.m., Talk. Huizen, 4.55 p.m., News. Lyon-la-Doua, 8.10 p.m., News. Radio-Beziers, 9 p.m., News.

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NAME..... (Mr., Mrs., or Miss) ADDRESS.....

Age.....Occupation..... W-Radio, 2/234

THE EMPIRE SECTION

OPENING OF NEW CAPE TOWN STATION

(From our Cape Town Correspondent)

JANUARY 15 will always be remembered as one of the most important days in the history of broadcasting in South Africa. Cape Town's new high-power broadcasting station was officially opened by the Governor-General, the Earl of Clarendon. Some fifty guests of the A.B.C. were assembled at the new palatial studios in Riebeck Street, Cape Town.

The change over from the old to the new stations began at eight o'clock. Lord Clarendon, speaking in English and Afrikaans, made the first address from the new station and declared it open. He said that about twenty-two years ago he remembered the then Postmaster-General of England telling him how thrilled he had been when the officials of the G.P.O. told him that wireless contact had been established between London and Madrid, and how interested he was at being able to carry on a conversation in code with an individual some hundreds of miles away.

"Ten years later," he said, "in 1922, the B.B.C. commenced its operations. Eight years passed, and from my own room in my London house I spoke, by means of wireless telephony, to a friend in the city of Melbourne, 13,000 miles away, and our voices were as audible one to another, and as clear, as if we had been carrying on a conversation in the same room."

Since then the developments and improvements in technique, transmission, loudspeakers, and programmes had been so remarkable and rapid that to-day wireless, or broadcasting, had conquered and annihilated distance, and was capable of putting the listening public into touch with matters of interest in almost all walks of life.

Broadcasting, he recalled, first started in Cape Town on September 15, 1924, under the control of the Cape Peninsula Publicity Association. "Its growth was slow but continuous till June, 1927, when the Cape Town Broadcasting Station was acquired by the African Broadcasting Co., Ltd. Growth since then has been rapid, culminating in the erection, at Milnerton, of the most modern transmitter procurable, manufactured by the Marconi Company, of a power of 10 kW (ten times the power of the old station), and with the construction of up-to-date studios specially built for the purpose." Declaring the station open, the Governor-General expressed the sincere hope that it would provide all, in their leisure hours, with better and clearer reception, many interesting talks, and much valuable information, as well as a fair measure of entertainment, amusement and fun.

The next speaker was Mr. Schlesinger, who, owing to indisposition, was unable to be present. Speaking over 1,000 miles of land-line from his private room in Johannesburg, he thanked the Earl and Countess of Clarendon for the honour they had conferred upon the African Broadcasting Company by their presence.

"Of the many high offices which his Excellency has filled," he said, "by no means the least in importance was his chairmanship of the B.B.C.

"With this past experience, he will view in a critical light what he is shown to-night, and I can only hope that the standard of efficiency we have so far achieved will not suffer too severely by comparison with what he insisted upon elsewhere."

At this stage Mr. Schlesinger (who is usually extremely reticent and has made no public statement concerning broadcasting for six years),

made a most interesting announcement regarding the future policy of the A.B.C.

He said: "The completion of the new Cape Town Station, which, as the building progressed, has been modernised and brought right up to date, represents a very distinct forward movement in the development of the science of broadcasting in South Africa. In fact, it represents more than this, for, although the plans and the project as a whole have been brought to maturity only now, the station was designed and provided for in our estimates during times which offered very little, if any, justification for the expenditure it represents.

"I think, therefore, we can claim that the Cape Town studio and transmitting station is an outward and visible sign of the unflinching faith which I and my colleagues have in the recuperative power of this great country of ours.

"We could, of course, have entertained, and in fact did entertain, a more ambitious plant than the one which is being inaugurated to-night. But, broadcasting being still in its infancy, it was thought advisable to be cautious in our development rather than to erect a more expensive station which scientific discoveries might quickly render obsolete. As it is, we now have a home for our activities in Cape Town, which, with very little alteration, can adapt itself to improved methods of radio engineering which the next few years will surely produce.

"As soon as this station has settled down to normal working conditions, our attention will be concentrated upon Port Elizabeth, at which point we shall instal the plant recently in use at Cape Town, but reconditioned and increased to 8 kW. Thereafter we have in mind to deal adequately with the Durban area where there is a growing popularity and a natural demand for progressive ideas in all matters pertaining to broadcasting. This demand will be met by installing a replica of the new set which is being officially opened to-night.

"Next on the schedule is East London, where the present Durban station, after being overhauled and strengthened, will be re-erected. We shall then be able to divide the Union and adjoining territories into five main regional

areas in each of which perfect reception should be obtainable from one or more of our main stations, all of which will be self-contained units connected up by land-lines. Each will have its own studio and be responsible for its own English and Afrikaans programmes, employing both English and Afrikaans local talent wherever available.

"The circuit of studios thus created will enable us to interchange artists, providing the whole area of our broadcasting field with entertainment of a very high quality.

"To overcome difficulties of transmission, a solution of which in certain sections of the Union has so far eluded us, the present relay station at Bloemfontein will be duplicated at other appropriate centres, of which the Eastern Province and the Border Territory figure foremost. Graham's Town has been selected for the first of these purposes, but the second awaits the result of a survey by our engineers, who will recommend some point geographically suitable.

"I cannot deal here with the possibilities which are now under discussion for perfecting the service we render the 70,000 licence holders presently on our books. But I cannot omit reference to one which seems likely to revolutionise our present conception of broadcasting as an adjunct to all phases of our national life. I refer to what is known as television, a discovery still a closed book to the layman, but in the experimental laboratories of Europe and America one which has evolved to a perfectly amazing extent.

"Having now emerged from its theoretical state, and having been proved to be a scientific principle which can be translated into practical use, and my firm having acquired many important patent rights covering the television art, I hope in a short while to introduce it into South Africa. Some little time may elapse ere this can be done, for the presence of a television engineer, whose services are not available at the moment, will be necessary. He has made me a promise, however, to come out here during the course of this year.

Referring to the altered relationships which

(Continued in col. 2 page 157)



The Governor-General of the Union of South Africa, the Earl of Clarendon, broadcasting his opening address in the new Cape Town Station music studio. (Left) The Countess of Clarendon

Empire Programme Letters

The Christmas Broadcast

From Fremantle, Western Australia :—

"I wish to congratulate you on your wonderful relay on Christmas morning, also Christmas evening. It is ten years since we heard Big Ben, and the whole programme came through wonderfully.

I might mention that we came from London and the thrill that it caused in our family when we heard London calling—well, all we can say is, 'Thanks so much.'

From Vancouver, B.C., Canada :—

"On behalf of my Dad, Mother, and myself, may I express our sincere appreciation of the splendid Christmas Day Empire broadcast, heard almost perfectly here at 6 a.m. on Christmas morning.

"The programme was a real treat to us all, especially the trip around the Old Country. I do hope the old Scotch lady's parcel 'frae Vancouver' contained something nice from 'Geordie,' and would like also to note that while the Welsh miner was talking about his listeners burning Welsh coal, we were heating our home with Welsh anthracite!

"While I am writing, I should mention also the splendid reception of the broadcast from Bethlehem on Sunday, December 24. It came through very clearly at 12 noon, our time, and we all thought it a most interesting programme. Many local churches had installed broadcast receivers in their buildings, and reported good results."

From Moose Jaw, Saskatchewan, Canada :—

"This morning at 7 o'clock we all listened to your marvellous unbroken chain broadcast, which came through as clear as a bell. We heard Big Ben striking 2 o'clock, which brought a lump in our throats. His Majesty's voice came through as clear as a bell, also.

"I must say, it was the treat of a lifetime. My real home is Cardiff, and I have been here on the Prairie for twenty-three years."

From Winnipeg, Manitoba, Canada :—

"The highlight of the whole day was the Empire broadcast, which came to us in Winnipeg at 8 a.m. Our sincere thanks to the B.B.C., which originated, and carries through to a successful conclusion, this annual demonstration to the world of our loyalty and solidarity. This morning, over the chain of the NBC, an American speaker concluded by saying that it left him with tears in his eyes and a lump in his throat. He telephoned a British friend of his and asked him if he were weeping—but, being an Englishman, of course he said 'No.'"

From Toronto, Canada :—

"The King's voice was very clear, and I heard it even upstairs, and may say I felt very homesick, my home being in South Kensington, London. I have been away fifteen years, but any time 'London is calling,' believe me, I am right by, listening in, as I wonder—Are my parents listening in at the same time as I am?"

From Kohat, N.-W. Frontier Province, India :—

"I would like to express my appreciation for the special Christmas programme, which came over wonderfully well. At 2.0 p.m. on Christmas Day, along with several friends who were anxious to hear the Home Country and his Majesty's speech, I tuned in to GSB. The first fifteen minutes were very weak, and intelligible reception was difficult. From 2.15 p.m. (G.M.T.), however, until the conclusion of the Christmas programme, reception was excellent. Wherever the microphone was in the United Kingdom, every word was clear and distinct, and 100 per cent. intelligible.

"Being a Yorkshireman myself, the part I liked best was in the industrial town—when the words were said, 'our Herbert in New Zealand and our Mary's George in India.' The Yorkshire (or should I say, Lancashire) accent was good—it made me imagine that I was at home."

From Thika, Kenya Colony :—

"A hearty vote of thanks has to-day been proposed, seconded, and carried unanimously by myself, and is hereby forwarded to you, on your very excellent Christmas Day programme, and Empire broadcasts in Transmission 4 in general!

"Reception here for some time past has been very good, and I can assure you that your efforts are very much appreciated by exiles like myself.

"Here's the best of good wishes, and more power to your various elbows!"

From Bulawayo, Southern Rhodesia :—

"This letter is being written to inform you that I received your Christmas Day broadcast excellently on a four-valve set.

"The introductory programme before the King's speech was excellent; the broadcast from the bottom of the mine, half a mile deep, and also the lighthouse broadcast, was wonderful, and we in South Africa and Rhodesia really appreciated the wonderful reception obtained by us. To listen to the announcer at Cape Town talking to India—well, we are 7,500 miles from England *via* Capé Town; that means 15,000 miles of travel, which proves to us the wonderful strides made by the B.B.C.

"Programmes of this description tend to bind the people of the British Empire together, and we in lonely and far-away countries appreciate what the B.B.C. is doing for us to make our lives worth living.

"The King—God bless him!—was very clear, and the broadcast was heard by about fifteen people who came from places where very few white people reside. If the King only knew how his people in Rhodesia appreciated hearing his voice, let alone his speech, he would, if it was in his power, come on the air every week—but of course, that is not possible."

[The following extract is from a letter sent from Northern Rhodesia to the writer's relatives at Bristol.]

From Broken Hill.

"1.50, English Time—Scottish Studio Orchestra; 1.55, Bells ringing; 2.0, Big Ben (4 o'clock here in Africa). Boom! Boom! (Writing this as I listen, picturing you all at B—). Greetings. Toast—'Absent Friends.' Singing—'God Rest Ye Merry, Gentlemen'; Christmas in London. (Oh! how marvellous is this wireless! Do hope you are all listening.) Talking of East End Settlement (reminds me of Dockland!). Pantomime (we saw one last year!). Band now playing 'Hark the Herald Angels.' Now a children's party is on. 'The Lost Chord.' Prayers. 'Let's look in on a family party.' Another party. Belfast—Ireland—'Come Back to Erin.' . . . Now to follow the people at work—Wales—Masts at Daventry (explaining how they relay)—a hooter—Rugby—St. Mary's Lighthouse, Northumberland—Glasgow pantomime (hear them laugh!). Toast again—'Absent Friends.' Dublin, Phoenix Park—Ottawa, Canada—Wellington, New Zealand—Sydney, Australia—India, Bombay—(Ha!) Cape Town, Africa! (Are you thinking of us?) 'Cape Town calling London!' HERE we are—6,000 miles divide us! Nearly 5 o'clock. Greeting to 'Absent Friends.'

Africans language. London. 'Good-bye, London! 'Good-bye, Cape Town!'

"H.M. the King! 'Once again, we have hopes—mutual faith—good will. Owe this to modern science—good will of the people—I wish to all—especially to the children—God bless you.' 'The King' (finely played). We stand as last year we did a—."

From Boston, Massachusetts, U.S.A. :—

"A year or two ago I wrote to you to say how disgusted we were with what we heard over the radio as England's contribution to the gaiety of nations. As I wrote when I felt disgusted and annoyed, it certainly is up to me to write and thank you for the really delightful programme which we all listened to at breakfast-time on Christmas Day last. We think you did admirably. The idea of the man down the mine, the Welsh cottage, the man in the lighthouse, was just wonderful and thrilling; and then, as a *pièce de résistance*, the King's voice. It did us a lot of good, and was ever so touching. I wish you could have seen us—and I suppose we were not unlike many another family—all sitting there, listening to every sound, some of us with tears running down our faces, and all leaping to our feet at the sound of 'God Save the King.'"

From Seattle, Washington, U.S.A. :—

"It is eight years since I left Liverpool, where for two years previously I was among the many listeners to your programmes—*via* a home-made crystal set. I came to Canada, against my wish (but was too young to have protests heeded), immediately after leaving school; spent four comparatively good years there, then was persuaded to come to U.S.A.—and have had a tough time since! When the family becomes scattered, as we are, and conditions prevent one from either paying visits or sending gifts, Christmas loses much of the joy it formerly possessed. This year promised to be better than the past three, though still leaving much to be desired.

"My reaction, since, has been that while as a youngster I always awakened very early on Christmas morning, to open my presents—I I don't think it was ever so well worth while as this morning."

[The following letter was sent to the Mayor of Tynemouth, and forwarded to the B.B.C.]

From Winsted, Connecticut, U.S.A. :—

"It was a pleasure to hear, during the world-round radio broadcast from Great Britain on Christmas Day, the message from the keeper of St. Mary's Lighthouse.

"We are natives of South Shields and former residents of Newcastle-on-Tyne. It brought back pleasant memories of many happy days spent in the surrounding district.

"Please to convey to the keeper our congratulations, and thank him from us for the pleasure he gave us on Christmas morning. It was as plainly heard here as if he were speaking from the next room.

"Thanking you, my dear Mr. Mayor."

From Seattle, Washington, U.S.A. :—

"I live outside the city limits of metropolitan Seattle, in a humble cottage, and might say I am just an average citizen of these United States. You folks on the British Isles talk our language in more ways than one, and I express the sentiments of a vast majority of our common citizenry when I say that we are indeed one people. May God hasten the day when the entire world may feel towards each other as the U.S.A., Canada, and England feel towards each other. Then wars and rumours of wars will cease, and we shall indeed through the common Fatherhood of God be brothers."

(Other Empire Programme Letters are to be found on next page)

“Fit
and
forget”

K.L.G.
PLUGS

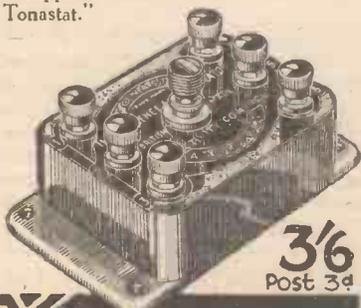
**“TONASTAT”
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SIGNAL STRENGTH, AND OF
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**Empire Programme Letters
(Contd.)**

Interference from Telegraphy

From Khodaung, Upper Burma:—

“Since the end of the rains my experience, and that of all our local people, has been that shorter waves—13, 19, 25—have steadily faded out, and at times of the day now even 31 is spoilt.

“The 49-metre transmission comes in in tremendous volume, but with a heavy background which spoils reception.

“As time goes on, I become more and more diffident of blaming any one cause for poor reception, but I am becoming convinced that one of the main causes for poor reception in this part of the world is the interference caused by telegraphic and telephonic stations.

“On several evenings lately Daventry has come in reasonably well at 2 p.m. (G.M.T.) on GSB. I and at least two other listeners lately have heard Big Ben at R6 and also the first two or three minutes of the News—it has then faded out, to the accompaniment of heavy background and occasional clipped words of morse signals. Between 2.30 and 2.45 p.m., G.M.T., the interference has ceased quite suddenly, and Daventry returns at R7 to R8.

“In conclusion, I might state that, apart from such interference, Daventry has been reasonably good—and on some days very good—on transmission GSB from 2 to 4 p.m., G.M.T. During this period I have been scarcely able to hear GSD or GSE, even when GSB is at R8. At 4 p.m., which is 10.30 p.m. local time, GSA is loud, and throughout transmissions 3, 4, and 5 reception is in general better on GSA than any shorter wavelength.

“I am unable now to compare Daventry with Paris or other European short-wave transmissions, since Daventry is the only short-wave European station that I have heard at anything above R3 strength for the last month.”

Bombay Relay Well Received

From Lahad Datu, British North Borneo:—

“We are taking this opportunity to tell you how much we are now enjoying the broadcasts from Home.

“When first your station opened we listened to all the tests, reports of which we sent you at the time, and were bitterly disappointed at the results. Now we enjoy your programmes certainly five days of the week.

“Last night (December 13), at approximately 8.30 p.m., our time, we heard the relay from Bombay, every word and note of which came over clearly. We congratulate you on your enterprise.”

A Change for the Better

From Sialkot City, Punjab, India:—

“From November last you started broadcasting on a wavelength of 49.6 metres from 4 p.m., G.M.T. (GSA), and I take this opportunity to congratulate you, because your decision has almost changed the short history of the Empire station. The reception is so wonderful. As I already mentioned in previous communications to you, among the short-wave stations Moscow was, so far, the only station which could be heard in India (Moscow Trades Union Station, 50 metres). All my friends who are interested in radio, and who are scattered all over the Punjab, agree with me that the reception of the Empire transmission on the wavelength of 49.6 is decidedly better than that of Moscow.

“I have a request to make, and I trust all the listeners in India will join me in that: You start broadcasting on 49.6 at 4 p.m., G.M.T., or, in other words, 9.30 p.m. by the Indian Standard Time, which is almost too late for India. People in India do not go to bed so late as in Europe. Here we must have some

good programmes with good reception from 6 p.m. to 10 p.m. (12.30 p.m. to 4.30 p.m., G.M.T.).

“The news bulletin which you broadcast about 6.15 a.m., Indian Standard Time, probably for Canada, is received in India in distinct and loud tones. It could not be better.”

“No Station Comes Near Daventry”

From Punjab, India:—

“First please allow me to express thanks and appreciation for the excellence of your programmes. They are excellent and thoroughly appreciated.

“My set is a local-made four-valve transformer-coupled battery set, and I can get all the programmes sent out to zones Australia, India, and Africa, with more strength than required on a loudspeaker, with the exception of the programme at about 6 p.m., local time—i.e. 12.30, G.M.T.; and this programme of late has been subject to such fading as to be hardly worth receiving.

“From 7.30 p.m., local time (2 p.m., G.M.T.) till 11.30, local time, I receive excellently—louder than required for a normal room, on the usual short waves 16, 19, 25, 31, and 49; and after 11.30 p.m., local time, I can receive any of the home stations on the 250-500 band.

“During the summer Daventry for strength was very, very poor, as, say, compared with PHI; but at the present there is no station that comes anywhere near Daventry, either in the excellence of the programmes or strength.

“Again expressing thanks, I am sure all listeners would greatly appreciate later news, more football, and a few Surprise Items. The first two more especially. If later news and more football matches were broadcast, I feel certain more English people out here would be radio listeners; though, curious to relate, I have yet to hear a listener who has a set of other than local manufacture express satisfaction with the quality of results. Having had a set in England, I must say results here on the short wave are equally as good as those I used to get in Devon in 1928. Believe me, there is no programme to come anywhere near the Empire broadcast.”

Excellent Reception

From Simla, India:—

“I am writing to say how very much I appreciate your Empire programmes—Big Ben, the time signal, the cheery music, the slow music which comes through so well, the news (including news about India!), etc. From 2 p.m. (your time) onwards, reception with my set is excellent. The set is a six-valve, and at present I have only an indoor aerial, tied up with bits of string!”

Wireless “Witchcraft”

From Bugondo, Uganda:—

“My dear, old, four-year-old friend has at last sighed its last. This disaster occurred on October 7, so ever since then I have been without a word from you, a note from you, or even a single atmospheric. I sent my old three-valve box of tricks down to a friend who understands this kind of witchcraft, and he tells me that the secondary winding of one of the transformers has come adrift in some way, and as that pattern of transformer is no longer made nowadays, etc., etc.—he was not polite!

“It is of no great importance—I shall not pay my doctor’s bill or butcher’s bill, but I shall spend the money I owe them on a new, extra-super-violet-ray wireless set, as I cannot stand this mountain for months on end unless I can be in London every night. No, certainly not. The last three months has been quite enough. Our Engineer is bringing me out all the latest witchcraft gadgets, and will then make up my set again for me.

“Please convey my very grateful thanks to all belonging to the B.B.C.”

Broadcasting News

AUSTRALIA

(From our Australian Correspondent)

New Agreement on Patent Royalties

AN agreement has been reached between representatives of the three principal holders of radio patents in Australia and representatives of the manufacturing industry, to make possible the unrestricted use of the patents concerned in the manufacture of radio receivers. The negotiations leading to this agreement started early in 1933, when the Commonwealth Government gave notice of its intention to cancel, as from March 1, 1934, the arrangement by which the Government collected and paid to Amalgamated Wireless of Australasia 3s. out of each listener's licence fee of 24s. a year, in return for which A.W.A. permitted the full use of its Australian, English, American, and European patents. Amalgamated Wireless, Standard Telephones and Cables, and Philips Radio, the three principal patent holders in Australia, formed themselves into Australian Radio Technical Services and Patents Co., Ltd., and this organisation has now completed with Radio Interests, Ltd. an agreement which has been adopted by the shareholders and only awaits legal formality to become operative. The agreement is for five years. Manufacturers who take out a licence under it will pay royalties at the rate of 3s. 6d. per valve socket, per set, with reductions for large outputs. The agreement provides that manufacturers shall have the right to use all the patents of the three companies concerned. Absolute protection is given to Australian industry against English and foreign importations, as only Australian manufacturers will be licensed. Manufacturers are required to deposit £150 before obtaining a licence. As the present arrangement with A.W.A. operates until March 1, 1934, the new agreement provides that from January 1, 1934, to March 1, a royalty of only 1s. 6d. per valve socket (with sliding scale) will be paid.

Test Cricket Broadcasts

Elaborate preparations have been made in Australia for broadcasting the 1934 test cricket matches in England. Both the national and the B class stations will provide a service.

As with the last series of matches played in England, a chain of B stations led by 2UW Sydney, 3DB Melbourne, and 4BC Brisbane, has arranged to radiate a running commentary during each test match from 11.30 a.m. to 6.30 p.m. (London time), which corresponds to 8.30 p.m. to 3.30 a.m., Sydney time. A special reporter is to be sent to England with the team. Beam wireless, cables, and the radio-telephone will all be used as required, to send details of every ball bowled. The story will be built up at either Sydney or Melbourne—most likely Melbourne—and radiated through the B class chain. It is expected that the total cost will be £20,000, including the despatch and broadcasting, in less detail, of reports of matches other than the tests. This expense will be made up from advertisers who will "sponsor" the broadcasts. The Australian Broadcasting Commission has not, at the moment of writing, completed its plans for the national service, but a series of comprehensive broadcasts has been decided upon.

Broadcasting Encourages Music Students

Sydney Conservatorium officials expect that next year 8,000 music students will pass through their hands for examination. They have just concluded a year in which more than 7,000 budding musicians received diplomas and awards denoting a degree of skill in the playing of violin, piano, harp, cello, and the various woodwind instruments. That so many pupils should have been enabled to sit for examination

in a period of economic stress is attributed by one Conservatorium official to the general educating influence of broadcasting on parent and pupil. "We think wireless has done wonders in this direction," the official said. "Radio has helped music learners, especially those living far from the big towns, for, before examinations, a well-known musician would demonstrate over the air the test pieces. This enabled the pupil to pick out the pitfalls. When broadcasting was first introduced many thought it would prove just another aid to the mechanisation of music, but we are happy to believe that its result has been of benefit to both music and pupil."

"Sir Thomas Warner: Pioneer of the West Indies"

COLUMBUS—sugar—winter-cruising tourists are the three keywords which leap to the mind of the average Briton in spanning the history of the West Indies. Of the part played by the English pioneers in opening up the "colonies of the Caribbean" and of laying the foundations of our Empire in the West we are lamentably uninformed.

In tracing the life and career of his ancestor Sir Thomas Warner and his family, Mr. Aucher Warner has chronicled no inconsiderable part of the story of the British Empire.

Thomas Warner founded, in 1623, the first English settlement in the West India Islands—on St. Christopher. For his services he was knighted by Charles I at Hampton Court Palace, and was presented with the famous Essex ring. The hardships endured by those early settlers, and the dangers and difficulties encountered from rival adventurers, no less than from the aboriginal Carib Red Indians, as well as the discomforts arising from tropical conditions are graphically described in two letters—published for the first time in the form in which they were originally written—sent by Thomas Warner to King Charles.

In a foreword to *Sir Thomas Warner*, the Rt. Hon. Viscount Elibank, President of the West India Committee (which body is responsible for publishing the volume), pays tribute to the long line of Warners who have held office in the West Indies, from the ancient pioneer down to the author of the book, who was himself for many years Attorney-General in Trinidad.

OPENING OF NEW CAPE TOWN STATION

(Continued from page 154)

now happily actuate the two great races of South Africa, Mr. Schlesinger said: "By broadcasting in both official languages, balanced views, responsible opinions, and the world's current news—thereby creating a broader national outlook—the service which our stations can render the cause of national unity is well nigh limitless. One of our aims is to foster by every means in our power, not only a spirit of tolerance, but of constructive goodwill and understanding between the two great races of this country."

Speeches were also broadcast by Senator C. F. Clarkson (Minister of Posts and Telegraphs), Mr. L. Gradner (Mayor of Cape Town) and Mr. H. L. Adler (General Manager of the A.B.C.) who said that Empire broadcasts were being arranged from the bottom of the world's deepest gold mine, from the Victoria Falls and from the Kruger National Park. At the conclusion of the official ceremony, a special inaugural musical programme was given by the Cape Town Orchestra and prominent singers.

During the evening greetings from the Johannesburg, Durban, Pretoria, and Bloemfontein stations were broadcast from Cape Town, and congratulatory messages were received from all parts.

An Empire Causerie

THE African Broadcasting Company, like all other broadcasting authorities, receives many suggestions from well-meaning listeners, some of them very good. A rather unfair criticism has just been made that the A.B.C. is following too closely on the lines of the B.B.C. An examination of the programmes of the former shows how far from reality this accusation is. For instance, there are physical culture lessons at 6.45 and 7.7 a.m. At the lunch hour there are important news bulletins and market prices; there are Afrikaans talks in the forenoon on topics of interest to women; there are frequently family prayers at 6 p.m. for the Dutch farmers who go to bed early; and so one could go on. The African Broadcasting Company never loses sight of the fact that conditions in Africa are different from those in England. There may be something in the idea that, for the country dwellers, the main evening programme hours should be from 6.30 to 8.30 instead of from 8 to 10. In the country people go to bed very early. They have to find nearly all their amusement in their own homes. There is no long twilight to keep them out of doors. But the town dwellers are different, and the programmes must suit them.

Current Broadcasting Coin

The Australian Broadcasting Commission has had the same problems in catering for a highly diversified population. As the last annual report puts it, "The lessons willingly learned from older wireless organisations have had to be modified for application in this country." In a sense the Australian conditions, with the wide divergence in climatic conditions between tropical Cape York and Hobart, the last port of call on the voyage to the South Pole, are not dissimilar to the conditions governing the Empire programmes. There it has been found that there is nothing so popular in any part of the Empire as a programme that is acceptable at home. Further it has been ascertained that the various parts of the Empire do not wish to be specially catered for in the matter of programme material. Always granting that reception is adequate, a good instrumental, vocal, or oral item is current broadcasting coin the Empire over. One item popular in Australia is taboo in many other parts: political broadcasts are really appreciated down under, so long as every side gets a fair show.

Broadcasting as Publicity Agent

Mr. Charlesworth, the Chairman of the Canadian Radio Commission, referring to the Christmas Day broadcast, said that if it had not been for the Commission, Canada would not have heard the King's message, and the broadcast from the Empire earlier in the day. This claim is generally admitted by the Press, and also the success of the broadcast is recognised as being the best argument for a national system that has yet been made. So far as broadcasts which originate outside of Canada are concerned, the task of the Commission is comparatively easy. It is another matter reconciling the claims of the different provinces. Ontario, for example, would like the Commission to act as publicity agents for them. They want Ontario held up as the Sportsman's Paradise, and as the farmers' best hope. They want talks on how to catch fish and where to catch fish. How to breed game, how to plant trees. In every case, the answer is connected with Ontario. It is a bright scheme, but how would the rest of Canada take it? It would simply mean that every part would have to have its fair share of publicity. None the less, if some scheme could be evolved whereby everyone would be satisfied it might be a most beneficent movement. But it is a very large if.

PROGRAMME STATIONS IN ALPHABETICAL ORDER

The Frequencies and Wavelengths shown are those on which the Stations are at present working

| | kc/s | m. | kW | | kc/s | m. | kW |
|--|------|-------|------|---|------|-------|------|
| Aberdeen | 1285 | 233.5 | 1 | Lyons (La Doua) (France)..Relays PTT | 648 | 463 | 15 |
| Algiers (North Africa)..... | 941 | 318.8 | 13 | Madrid (Spain) EAJ7 | 1095 | 274 | 7 |
| Athlone (Ireland)..Relayed by Dublin and Cork | 565 | 531 | 60 | Midland Regional (Gt. Britain) | 767 | 391.1 | 25 |
| Barcelona, EAJ15 | 1022 | 293.5 | 3 | Monte Ceneri | 1167 | 257.1 | 15 |
| Belfast (N. Ireland)..... | 1122 | 267.4 | 1 | Moravská-Ostrava (Czechoslovakia) | 1158 | 259.1 | 11.2 |
| Belgrade (Yugoslavia)..... | 686 | 437.3 | 2.5 | Moscow (No. 1) (Russia)..... | 175 | 1714 | 500 |
| Berlin (Germany)..... | 841 | 356.7 | 100 | Munich (Germany)..Relayed by Augsburg, Kaiserslautern, and Nürnberg | 740 | 405.4 | 100 |
| Beromünster (Switzerland)..Relays Basle and Berne | 556 | 539.6 | 60 | North National (Gt. Britain) | 1013 | 296.2 | 50 |
| Bordeaux Lafayette (France) (PTT)..... | 1077 | 278.6 | 12 | North Regional (Gt. Britain)..... | 668 | 449.1 | 50 |
| Bournemouth | 1474 | 203.5 | 1 | Oslo (Norway)..Relayed by Fredriksstad, Hamar, Notodden, Porsgrund, Rjukan, Stavanger.. | 253 | 1186 | 60 |
| Bratislava (Czechoslovakia) | 1004 | 298.8 | 13.5 | Palermo (Italy) | 565 | 531 | 3 |
| Breslau (Germany)..Relayed by Gleiwitz..... | 950 | 315.8 | 60 | Paris (Ecole Supérieure) (France) (PTT)..... | 695 | 431.7 | 7 |
| Brno (Czechoslovakia) | 922 | 325.4 | 32 | Paris (Eiffel Tower) (France) | 216 | 1389 | 13 |
| Brussels (No. 1) (Belgium)..... | 620 | 483.9 | 15 | Paris (Poste Parisien) (France)..... | 959 | 312.8 | 100 |
| Brussels (No. 2) (Belgium)..... | 932 | 321.9 | 15 | Paris (Radio-Paris) (France) | 167 | 1796 | 75 |
| Bucharest (Romania)..... | 1411 | 212.6 | 12 | Prague (Czechoslovakia) | 638 | 470.2 | 120 |
| Budapest (No. 1) (Hungary) | 546 | 549.5 | 120 | Radio-Normandie (France) | 1456 | 206 | 0.2 |
| Copenhagen (Denmark)..Relayed by Kalundborg | 1176 | 255.1 | 10 | Riga (Latvia) | 1258 | 238.5 | 15 |
| Cork (I.F.S.) | 1240 | 242 | 1 | Rome (Italy)..Relayed by Naples, Milan (Vigentino), and Bari | 713 | 420.8 | 50 |
| Daventry National (Gt. Britain)..... | 200 | 1500 | 30 | Scottish National (Gt. Britain)..... | 1055 | 285.7 | 50 |
| Deutschlandsender (Germany)..... | 191 | 1571 | 60 | Scottish Regional (Gt. Britain)..... | 804 | 373.1 | 50 |
| Dublin (Ireland) | 1348 | 222.6 | 1 | Sottens (Switzerland)..Relays Geneva..... | 677 | 443.1 | 25 |
| Frankfurt-am-Main (Germany). Relayed by Trier | 1195 | 251 | 17 | Stockholm (Sweden)..Relayed by Motala, Göte- borg and Hörby | 704 | 426.1 | 55 |
| Hamburg (Germany) Relayed by Bremen, Flens- burg, Hanover, Magdeburg, and Stettin ... | 904 | 331.9 | 100 | Strasbourg (France) | 859 | 349.2 | 12 |
| Heilsberg (Germany)..Relayed by Danzig. Re- lays Königsberg | 1031 | 291 | 60 | Stuttgart (Mühlacker) (Germany)..Relayed by Freiburg | 574 | 522.6 | 100 |
| Hilversum (Holland)..Huizsum programme.... | 995 | 301.5 | 20 | Toulouse (France) | 895 | 335.2 | 10 |
| Huizsum (Holland)..Huizsum programme.... | 160 | 1875 | 7 | Trier (Germany)..Relays Frankfurt..... | 1195 | 251 | 2 |
| Juan-les-Pins (France) | 1348 | 222.6 | 2 | Trieste (Italy)..Relays Turin | 1222 | 245.5 | 10 |
| Kalundborg (Denmark)..Relays Copenhagen.. | 238 | 1261 | 75 | Turin (Italy)..Relayed by Milan, Genoa, Flor- ence and Trieste | 1140 | 263.2 | 7 |
| Katowice (Poland)..Relays Warsaw..... | 758 | 395.8 | 12 | Vienna (Bisamberg) (Austria)...Relayed by Graz, Innsbruck, Klagenfurt, Linz, Salzburg, and Dornbirn | 592 | 506.8 | 120 |
| Kaunas (Lithuania) | 155 | 1935 | 7 | Warsaw (No. 1) (Poland) | 212 | 1415 | 120 |
| Lahti (Finland)..Relayed by Helsinki..... | 167 | 1796 | 40 | West National (Gt. Britain)..... | 1149 | 261.1 | 50 |
| Langenberg (Germany) | 658 | 455.9 | 60 | West Regional (Gt. Britain)..... | 977 | 307.1 | 50 |
| Leipzig (Germany)..Relayed by Dresden..... | 785 | 382.2 | 120 | | | | |
| London Regional (Gt. Britain)..... | 877 | 342.1 | 10 | | | | |
| London National (Gt. Britain)..... | 1149 | 261.1 | 50 | | | | |
| Lwów (Poland) | 795 | 377.4 | 16 | | | | |

EXTRA-EUROPEAN STATIONS IN ALPHABETICAL ORDER

| | kc/s | m. | kW | | kc/s | m. | kW | | kc/s | m. | kW |
|---|-------|-------|------|------------------------------------|-------|-------|------|--|-------|-------|------|
| Abilene (Kns.), KFBI | 1050 | 285.5 | 5 | Denver (Colo.), KOA | 830 | 361.2 | 12.5 | Oklahoma City (Okla.), KOMA | 1480 | 202.6 | 5 |
| Adelaide (Australia), SCL | 730 | 411 | 5 | Des Moines (Iowa), WHO | 1000 | 300 | 5 | Osaka (Japan), JOBK | 750 | 400 | 10 |
| Albuquerque (KOB) | 1180 | 254.2 | 10 | Detroit (Mich.), WJR | 750 | 399.8 | 10 | Perth (Australia), 6WF | 690 | 435 | 5 |
| Alexandria (Va.), WJSY | 1460 | 205.4 | 10 | Dunedin (New Zealand), 4YA | 790 | 379.5 | 0.25 | Philadelphia (Pa.), WCAU | 1170 | 256.3 | 50 |
| Ames (Iowa), WOI | 640 | 468.5 | 5 | Durban (South Africa) | 723 | 415 | 1.5 | Pittsburgh (Pa.), (Westinghouse Elec- tric), KDKA | 980 | 305.9 | 50 |
| Atlanta (Ga.), WSB | 740 | 405.2 | 350 | Edmonton (Canada), CHMA-CKUA | 580 | 517 | 0.5 | Portland (Ore.), KEX | 1180 | 254.2 | 5 |
| Atlantic City (N.J.), WPG | 1100 | 272.6 | 5 | Fort Wayne (Ind.), WWOV | 1160 | 258.5 | 10 | Pretoria (S. Africa) | 952 | 315 | 0.5 |
| Auckland (New Zealand), IYA | 650 | 461.3 | 0.5 | Forth Worth (Texas), WBAP | 800 | 374.8 | 50 | Rangoon (Burma), 2NRR | 857 | 350 | 0.35 |
| Baltimore (Md.), WBAL | 1060 | 282.8 | 15 | Gainsville (Fla.), WRUF | 830 | 361.2 | 5 | Regina (Canada), CNRR | 960 | 312.3 | 0.5 |
| Bangkok (Siam), HSP1 | 857 | 350 | 2.0 | Hartford (Conn.), WTIC | 1060 | 282.8 | 50 | Richmond (Va.), WRVA | 1110 | 270.1 | 5 |
| Birmingham (Ala.), WAPI | 1140 | 263 | 5 | Hiroshima (Japan), JOFK | 849 | 353 | 10 | Rochester (N.Y.), WHAM | 1150 | 260.7 | 5 |
| Bombay (India), VUB | 840 | 357.1 | 3 | Hobart (Australia), 7ZL | 580 | 517 | 3 | Salt Lake City (Utah), KSL | 1130 | 265.3 | 50 |
| Boston (Mass.), WBZ | 990 | 303 | 25 | Hong Kong (China), ZBW | 845 | 355 | 1.5 | San Antonio (Texas), WOAI | 1190 | 252 | 50 |
| Brisbane (Australia), 4QG | 759 | 395 | 5 | Hot Springs (Ark.), KTHS | 1040 | 288 | 10 | San Francisco (Cal.), KPO | 680 | 441 | 50 |
| Buenos Aires (Radio Excelsior), LR5 | 830 | 361.4 | — | Johannesburg (S. Africa), JB | 670.4 | 447.5 | 15 | San Francisco (Cal.), KGO | 790 | 379.5 | 7.5 |
| Buenos Aires (Radio Nacional), LR3 | 950 | 315.8 | 5 | Kumamoto (Japan), JOGK | 789 | 380 | 10 | Sapporo (Japan), JOIK | 830 | 361 | 10 |
| Buenos Aires (Radio Porteña), LS4 | 670 | 447.8 | 5 | Lima (Peru), OAX | 789 | 380 | 5 | Schenectady (N.Y.) (G.E.Co.), WGY | 790 | 379.5 | 50 |
| Buenos Aires (Radio Splendid), LR4 | 990 | 303 | 10 | Lincoln (Neb.), KFAB | 770 | 398.4 | 5 | Seattle (Wash.), KJR | 970 | 309.1 | 5 |
| Buffalo (N.Y.), WKBW | 1480 | 202.6 | 5 | Los Angeles (Cal.), KNX | 1050 | 285.5 | 25 | Sendai (Japan), JOHK | 760 | 394.7 | 10 |
| Calcutta (India), VUC | 810 | 370.4 | 3 | Los Angeles (Cal.), KFI | 640 | 468.5 | 50 | Shanghai (China), XRC | 887.3 | 338 | 0.15 |
| Calgary (Canada), CFCN | 1030 | 291.2 | 10 | Louisville (Ken.), WHAS | 820 | 365.6 | 25 | Shanghai (China), XCBL | 1276 | 235.5 | 0.4 |
| Cape Town (South Africa) | 808.6 | 371 | 1.5 | Madras (India), VUM | 769 | 390 | — | Shreveport (La.), KWKH | 850 | 352.7 | 10 |
| Casablanca (Morocco) | 984 | 305 | 2.5 | Melbourne (Australia), 3AR | 620 | 484 | 5 | Spokane (Wash.), KGA | 1470 | 204 | 5 |
| Charlotte (Nc.), WBT | 1080 | 277.6 | 25 | Melbourne (Australia), 3LO | 800 | 375 | 5 | Springfield (Mass.), WBZ | 990 | 302.8 | 25 |
| Chicago (Ill.), KYW-KFKX | 1020 | 293.9 | 10 | Miami Beach (Florida), WIOD | 1300 | 230.6 | 10 | State College (N. Mex.), KOB | 1180 | 254 | 10 |
| Chicago (Ill.), WMAQ | 670 | 447.5 | 5 | Minneapolis (Min.), WCCO | 810 | 370.2 | 50 | St. Louis (Mo.), KMOX | 1090 | 275.1 | 50 |
| Chicago (Ill.), WGN-WLIB | 720 | 416.4 | 25 | Montreal (Canada), CKAC | 730 | 411 | 5 | St. Paul (Min.), KSTP | 1460 | 205 | 5 |
| Chicago (Ill.), WBBM | 770 | 389.4 | 25 | Montreal (Canada), CFCM | 910 | 329.5 | 5 | Sydney (Australia), 2BL | 855.5 | 351 | 5 |
| Chicago (Ill.), WLS | 870 | 344.6 | 50 | Mooseheart (Ill.), WJJD | 1130 | 265.3 | 20 | Tokyo (Japan), JOAK | 870 | 345 | 10 |
| Chicago (Ill.), WENR | 870 | 344.6 | 50 | Nagoya (Japan), JOCK | 811 | 370.3 | 10 | Toronto (Canada), CFRB | 960 | 312 | 5 |
| Chicago (Ill.), WMBI | 1080 | 277.6 | 5 | Nairobi (Kenya), VO7LO | 750 | 400 | — | Toronto (Canada), CFRB | 690 | 434.7 | 10 |
| Christchurch (New Zealand), 3YA | 720 | 416.4 | 0.5 | Nashville (Tenn.), WSM | 650 | 461.4 | 50 | Tulsa (Okla.), KVOO | 1140 | 263 | 5 |
| Cincinnati (O.), WLW | 700 | 428.6 | 50 | Nashville (Tenn.), WLAC | 1470 | 204 | 5 | Wellington (New Zealand) 2YA | 570 | 526 | 5 |
| Cleveland (O.), WTAM | 1070 | 280.2 | 50 | Newark (N.J.), WOR | 710 | 422.3 | 5 | Wheeling (W. Va.), WWVA | 1160 | 258.5 | 5 |
| Colombo (Ceylon), VPB | 700 | 428.6 | 1.75 | New Orleans (La.), WWL | 850 | 352.7 | 10 | Windsor (Canada), CKLW | 840 | 357 | 5 |
| Covington (Ken.), WKCY | 1490 | 201.2 | 5 | New York (N. B.Co.), WEFB | 660 | 454.3 | 50 | Winnipeg (Canada), CKY | 910 | 329.6 | 5 |
| Crystal Brook (Australia), SCK | 720 | 417 | 7.5 | New York City, WABC-WBOQ | 860 | 348.6 | 50 | Zion (Ill.), WCBD | 1080 | 278 | 5 |
| Dallas (Tex.), WFAA | 800 | 374.8 | 50 | New York City, WJZ | 760 | 394.6 | 10 | | | | |
| Dallas (Tex.), KRLL | 1040 | 288 | 10 | New York City, WLWL | 1100 | 272.6 | 5 | | | | |
| Davenport (Ohio), WOC | 1000 | 300 | 5 | Oakland (Cal.), KGO | 790 | 380 | 7.5 | | | | |

PROGRAMMES: SUNDAY (Feb. 4)

NATIONAL

Time Signals:
 Big Ben.—12.30 p.m., 10.30 p.m.
 Greenwich, 10.30 a.m., 4.30 p.m.
 9.0 p.m.
 10.30—10.45 a.m. (Daventry)—
 Weather Forecast for Farmers and
 Shipping.
 12.30 p.m. (Daventry)—A Pianoforte
 Recital by Claude Pollard.
 1.0 (Daventry)—The Northern Studio
 Orchestra. Pat Ryan (clarinet).
 2.0 (Daventry)—A Recital of Gramo-
 phone Records. Music by Brahms.
 2.40 (Daventry)—"British Art." Prof.
 R. M. Y. Gicadoue.
 3.0 (Daventry and Scottish)—Reginald
 King and his Orchestra.
 4.0 (Daventry and Scottish)—A Rec-
 ital by Arthur Fear (baritone).
 4.30—For the Children.
 4.50—Church Cantata No. 65—Bach.
 "Sie werden aus Saba Alle Kommen."
 Bruce Flegg (tenor). Henry
 Cummings (bass). The Wireless
 Chorus. Ernest Lush (harpichord).
 Berkeley Mason (organ). The
 B.B.C. Orchestra (Section C), con-
 ducted by Adrian Boult.
 5.30—"Pillars of the English Church"
 —Scribes—2. Thomas Ken.
 5.45—Chamber Music. The Prague
 String Quartet. Anne Thursfield
 (mezzo-soprano).
 7.0—Readings from Classical Litera-
 ture—50.
 7.30—A Violin Recital by Orrea
 Pernel.
 8.0—A Religious Service from the
 Studio.
 8.45 (Daventry)—The Week's Good
 Cause. An Appeal on behalf of The
 Mercantile Marine Service Associa-
 tion.
 8.50—"The News."
 9.5—Tom Jones and The Grand
 Hotel, Eastbourne, Orchestra.
 Walter Glynn (tenor).
 10.30—Epilogue.

REGIONAL

Time Signals:
 Big Ben.—12.30 p.m., 10.30 p.m.
 Greenwich, 4.30 p.m., 9.0 p.m.
 12.30—4.30 p.m. (Scottish till 3 p.m.;
 except Midland)—Daventry
 National Programme.
 3.0 (Scottish)—The Reid Symphony
 Orchestra. Conductor, Prof. D. F.

Tovey. Mona Benson (mezzo-
 contralto). Walter Worsey (horn).
 R. C. Howells (organ).
 4.30 (London, Midland, West)—The
 London Symphony Orchestra.
 4.30 (North)—The Studio Orchestra.
 4.45 (North)—Organ Recital by Cyril
 Maude.
 4.45 (Scottish)—A Ballad Concert.
 Janette Sclanders (soprano).
 William Shanks (bass-baritone).
 Barbara Laing (pianoforte).
 5.30 (except Midland)—The Wireless
 Military Band. Arthur Cox (tenor).
 5.30 (Midland)—Schubert Recital.
 Margaret Balfour (contralto). David
 Branson (pianoforte).
 6.15 (Midland)—Reading.
 6.30 (London, North, Scottish)—The
 B.B.C. Theatre Orchestra. Heddie
 Nash (tenor).
 6.30 (Midland)—Ernest Parsons and
 his Orchestra. Gilbert Astin (bari-
 tone).
 6.30 (West)—The Studio Orchestra.
 Parry Jones (tenor).
 7.30 (Scottish)—Fireside Talk about
 Religion and Life.
 7.50 (Midland)—A Service from the
 Cathedral, Birmingham. The Bells.
 8.0 (London)—A Religious Service
 from Brompton Parish Church.
 8.0 (West)—A People's Service from
 The Colston Hall, Bristol.
 8.0 (North)—A Religious Service from
 the Parish Church of St. Peter,
 Stoke-on-Trent.
 8.0 (Scottish)—A Service from St.
 Enoch's Parish Church, Dundee.
 8.45 (London)—An appeal on behalf
 of The British Red Cross Society
 Clinic for Rheumatism.
 8.45 (Midland)—An appeal on behalf
 of The Dudley and District Hospital
 Sunday Fund.
 8.45 (West)—An appeal on behalf of
 The Bristol Civic League of Social
 Service.
 8.45 (North)—An appeal on behalf of
 The Ashton-under-Lyne District
 Infirmary and Children's Hospital.
 8.45 (Scottish)—An appeal on behalf
 of "Safety First" Councils.
 8.50—"The News."
 9.5—Sunday Orchestral Concert—12.
 Kathleen Long (pianoforte). The
 B.B.C. Orchestra (Section B).
 Conducted by Frank Bridge.
 10.30—Epilogue.

EMPIRE SUMMARY

For wavelengths, see S.W. List

Transmission 1 (GSF, GSD)

G.M.T.
 8.0 a.m.—Big Ben. Newsletter.
 8.15—A Religious Service.*
 9.0—Entr'actes and Marches.†
 9.30—Violin Recital. Orrea Pernel.
 10.0—Close Down.

Transmission 2 (GSG, GSE)

12.30 p.m.—Big Ben. A Pianoforte
 Recital, by Claude Pollard.
 1.0—The Northern Studio Orchestra.
 Pat Ryan (Clarinet).
 1.45—Close Down.

Transmission 3 (2—4 p.m. GSE, GSB; 4—6 p.m. GSB, GSA)

2.0 p.m.—Big Ben. Newsletter.
 2.15—A Religious Service.*
 3.0—Reginald King and his Orchestra.
 4.0—Recital. Arthur Fear (baritone).
 4.30—The London Symphony Or-
 chestra.†
 5.15—Newsletter (second reading).
 5.30—The Wireless Military Band.
 Arthur Cox (tenor).
 6.0—Close Down.

Transmission 4 (6.15—7.45 p.m. GSD, GSB; 7.40—10.40 p.m. GSB, GSA)

6.15 p.m.—Big Ben. Newsletter.
 6.30—The Prague String Quartet.
 Anne Thursfield (mezzo-soprano).
 7.0—The B.B.C. Theatre Orchestra.
 7.45—Violin Recital. Orrea Pernel.
 8.0—A Religious Service.
 8.45—Newsletter. 9.0—Interlude.
 9.5—Tom Jones and The Grand
 Hotel, Eastbourne, Orchestra. Wal-
 ter Glynn (Tenor).
 10.30—Epilogue.
 10.40—Close Down.

Transmission 5 (GSC, GSA)

11.0 p.m.—Big Ben. A Service.*
 11.45—A Symphony Concert.†
 12.45 a.m.—Newsletter.
 1.0—Close Down.

* Electrical Recording.
 † Gramophone Records.

PRINCIPAL EVENTS

SERVICES AND SACRED MUSIC

9.30 a.m. Warsaw: Gregorian Choir.
 10.30 ,, Leipzig, etc.: Church Cantata (Bach).
 4.0 p.m. Kalundborg: Protestant Service.
 5.15 ,, Strasbourg: Sacred Music.

CONCERTS

10.20 a.m. Vienna: Symphony No. 2 (Bruckner), etc.
 11.15 ,, Warsaw: Philharmonic Orchestra.
 2.10 p.m. Hilversum: From Concertgebouw, Amsterdam.
 2.25 ,, Kalundborg: Fini Henriques programme.
 5.0 ,, Brussels No. 1: Flemish Composers.
 6.45 ,, Leipzig, etc.: Paul Lincke programme.
 6.50 ,, Warsaw; Operatic concert.
 7.0 ,, Kalundborg: Orchestral and choral.
 7.0 ,, Prague, etc.: Philharmonic Orchestra; Zemlinsky.
 7.10 ,, Rome, etc., Turin etc.: Folk-music.
 7.20 ,, Bucharest: The Station Orchestra.
 7.45 ,, Sottens: Symphonic Jazz.
 7.55 ,, Huizen: The K.R.O. Orchestra.
 7.55 ,, Leipzig, etc.: Waltzes—orchestral and vocal.
 8.0 ,, Brussels No. 1: Orchestral and vocal.
 8.0 ,, Brussels No. 2: Symphony Orchestra.
 9.0 ,, Budapest: Imre Magyari's Cigany Band.
 9.0 ,, Stockholm: Chamber Orchestra.
 9.55 ,, Hilversum: Light orchestral.
 10.5 ,, Munich, etc.: The Station Orchestra.
 10.15 ,, Budapest: Emile Roosz Viennese Orchestra.

OPERETTAS

7.0 p.m. Stuttgart etc.: "As Once in May."
 8.30 ,, Strasbourg: "The Merry Widow" (Lehar).

CHAMBER MUSIC

4.5 p.m. Vienna: The Rothschild Quartet; English Music.
 7.5 ,, Berlin, etc.: "Frau Musica" (Chamber Orchestra).

RECITALS

12 noon Radio-Paris: Organ.
 6.10 p.m. Huizen: Organ.
 7.15 ,, Beromünster: Beethoven Pianoforte Sonatas.
 7.25 ,, Sottens: Harpsichord.
 9.15 ,, Oslo: Pianoforte (Schumann Kinderszenen).

PLAYS

4.0 p.m. Radio-Paris: Three short plays.
 8.10 ,, Poste Parisien: "Caracalla" (one-act tragedy).

DANCE MUSIC

5.0 p.m. Brussels No. 2; 9.5, Vienna; 9.25, Warsaw;
 9.45, Oslo; 9.50, Kalundborg; 10.30, Strasbourg.

To facilitate the finding of wavelengths we suggest that readers should cut off the bottom corner of the whole of the programme section as indicated by the dotted line, so as to enable them to turn back to the Alphabetical List without delay.

NOTE: The Hours of Trans-
 mission are Reduced to Green-
 wich Mean Time

5 a.m.

BERLIN, BRESLAU, DEUTSCH-
 LANDSENDER, FRANKFURT,
 HEILSBURG, LANGENBERG,
 LEIPZIG, MUNICH, and STUTT-
 GART, 5.35—See Hamburg.
 HAMBURG, 5.35—Harbour Concert.
 MOSCOW (No. 1), 5.15—Announce-
 ments. 5.30—Music.
 PRAGUE (No. 1), 5.45—Time; Gym;
 Music; News.

6 a.m.

BERLIN, BRESLAU, DEUTSCH-
 LANDSENDER, FRANKFURT,
 HEILSBURG, LANGENBERG,
 LEIPZIG, MUNICH and STUTT-
 GART, 6.0—See Hamburg 5.35 a.m.
 HAMBURG, 6.0—Harbour Concert
 (contd. from 5.35).
 LAHTI, 6.5—Morning Prayers in
 Swedish. 6.30—Morning Prayers
 in Finnish. 6.45—Gym. in Swedish.
 MOSCOW (No. 1), 6.0—Music.
 PRAGUE (No. 1), 6.0—News. 6.30—
 Karlsbad Municipal Orchestra.

7 a.m.

BARCELONA, 7.15—News; Records.
 BERLIN, 7.15—Motto. 7.20—Talk:
 Between Town and Country. 7.25—
 Records. 7.55—Chimes; Service.
 BRESLAU, 7.15—Motto.
 BRNO, 7.30—Organ Recital.
 DEUTSCHLANDSENDER, 7.0—For
 Farmers. 7.55—Chimes; Service;
 Chimes from Berlin Cathedral.
 FRANKFURT, 7.15—Time; News.
 7.20—Weather. 7.25—Gym. 7.45—
 Service.

HAMBURG, 7.15—Time; News.
 7.30—Gym. 7.45—Talk: Theatre
 Notes.
 HEILSBURG, 7.0—Roman Catholic
 Service.
 KALUNDBORG, 7.0—Gym.
 LAHTI, 7.15—Gym. in Finnish.
 LANGENBERG, 7.15—Time; News.
 LEIPZIG, 7.0—Orchestra. 7.15—
 For Farmers. 7.30—Choir.
 MOSCOW (No. 1), 7.0—Music.
 7.15—For Children.
 MUNICH, 7.0—Concert. 7.15—
 Chess Lesson. 7.45—Choral Con-
 cert.
 PARIS (Radio-Paris), 7.0—Records.
 7.15—News. 7.45—Gym.
 PRAGUE (No. 1), 7.0—Karlsbad
 Municipal Orchestra. 7.30—Organ
 Recital.
 RADIO - NORMANDIE, 7.15—Re-
 cords. 7.30—News.
 STUTTGART, 7.0—Concert. 7.15—
 Time; News; Weather. 7.25—
 Gym. 7.45—Service.
 VIENNA, 7.0—Bach Organ and
 Piano Music. 7.30—Records.

8 a.m.

BARCELONA, 8.0—Chimes; Gym;
 Records. 8.20—News; Records.
 BRATISLAVA, 8.0—Roman Catholic
 Service.
 BRESLAU, 8.0—Chimes. 8.5—
 Protestant Service.
 BRNO, 8.15—Song Recital. 8.40—
 Talk.
 BUDAPEST (No. 1), 8.15—News.
 FRANKFURT, 8.30—Ewald Kalde-
 weier (Baritone). Reading in the
 Interval.
 HAMBURG, 8.0—Records. 8.55—
 Service.
 HEILSBURG, 8.0—Service.
 HILVERSUM, 8.40—Football Re-
 sults. 8.45—For Gardeners.
 HUIZEN, 8.10—Religious Pro-
 gramme.

9 a.m.

BARCELONA, 9.0—In Memoriam.
 BERLIN, 9.5—Weather.
 BEROMÜNSTER, 9.0—Catholic
 Service. 9.45—Mozart Concert
 from the Conservatoire.
 BRATISLAVA, 9.0—Soviet Songs.
 9.30—Reading.
 BRESLAU, 9.0—Talk. 9.20—
 Pianoforte Trios. 9.50—Th. Wer-
 ner Hoffmann reads.
 BRUSSELS (No. 1), 9.45—Gardening
 Talk.
 BUCHAREST, 9.30—Religious Ad-
 dress.
 BUDAPEST (No. 1), 9.0—Service.
 DEUTSCHLANDSENDER, 9.5—
 Weather.
 FRANKFURT, 9.0—Roman Catholic
 Service.

HAMBURG, 9.0—Service (contd.
 from 8.55).
 HEILSBURG, 9.0—Service. 9.45—
 Weather. 9.50—Talk.
 HILVERSUM, 9.0—For Gardeners.
 9.10—Organ Recital by Jong.
 HUIZEN, 9.0—Religious Programme
 (contd. from 8.10). 9.10—
 Records. 9.40—Mass from St. Mar-
 tin's Church, Medemblik.
 KALUNDBORG, 9.0—Service from
 St. Frederick's Church.
 KAUNAS, 9.0—Wilno Pro-
 gramme. 9.15—Roman Catholic
 Service.
 LAHTI, 9.45—News in Finnish and
 Swedish.
 LANGENBERG, 9.0—Roman Catho-
 lic Service from Duisberg.
 LEIPZIG, 9.0—Talk: The German
 Reich.
 LYONS (La Doua), 9.0—German
 Lesson. 9.20—English Lesson.
 9.40—Esperanto Lesson.
 MORAVSKÁ - OSTRAVA, 9.0—
 Talk: Otakar Brezina and his
 Works.
 MOSCOW (No. 1), 9.0—News.
 MUNICH, 9.0—Roman Catholic
 Service. 9.50—Reading.
 PARIS (Radio-Paris), 9.20—English
 Lessons.
 PRAGUE (No. 1), 9.0—Trio-Concert.
 9.30—Reading.
 ROME, 9.0—Announcements;
 Sports Notes. 9.30—For Farmers.
 9.45—Roman Catholic Address.
 SOTTENS, 9.0—Protestant Service.
 STOCKHOLM, 9.0—Talk. 9.15—
 Talk. 9.30—Talk on the Swedish
 Language.
 STRASBOURG, 9.30—Orchestra,
 conducted by Maurice de Villers.
 STUTTGART, 9.0—Roman Catholic
 Service from Friedberg.
 TRIESTE, 9.0—Mass from the Cath-
 edral of San Giusto.
 TURIN, 9.40—For Farmers.
 VIENNA, 9.0—Roman Catholic Ser-
 vice from the Franciscan Church.
 WARSAW, 9.0—Announcements.
 9.5—Sacred Music on Records.
 9.30—Gregorian Choral Service from
 St. John's Cathedral. Gregorian
 Choir.

10 a.m.

BERLIN, 10.0—"Bread and Wine"
 —Radio Sequence (Faber du Faur).
 10.30—See Leipzig.
 BEROMÜNSTER, 10.0—Mozart.
 Concert (contd. from 9.45).
 10.45 (approx.)—Cécile Ines.
 BRESLAU, 10.15—See Leipzig.
 BRUSSELS (No. 1), 10.0—The Sta-
 tion Orchestra, conducted by Lec-
 mans.
 BRUSSELS (No. 2), 10.0—Records.
 BUCHAREST, 10.0—Records:
 Symphonies.
 BUDAPEST (No. 1), 10.0—Roman
 Catholic Service.
 DEUTSCHLANDSENDER, 10.0—
 Talk on Art. 10.15—Weather.
 10.30—See Leipzig.
 FRANKFURT, 10.0—To be an-
 nounced. 10.30—See Leipzig.
 HAMBURG, 10.15—Talk: Astro-
 nomy. 10.30—Radio Report: The
 Plauen Lace Industry.
 HEILSBURG, 10.0—East Prussian
 Review. 10.30—A Musical Diary.
 HILVERSUM, 10.20—Service
 HUIZEN, 10.0—Mass (contd. from
 9.40).
 KALUNDBORG, 10.0—Service.
 10.30—Weather. 10.40—News.
 LAHTI, 10.0—String Quartet in C
 minor (Ragni). 10.30—Talk. 10.45
 —Shipping Notes; Weather.
 LANGENBERG, 10.0—Reading.
 10.30—See Leipzig.
 LEIPZIG, 10.0—Talk The German
 Reich (contd. from 9.0). 10.45—Talk
 on the following Transmission.
 10.30—"Mit Fried und Freud ich
 fahr dahin"—Cantata (Bach). The
 Municipal and Gewandhaus Or-
 chestra, St. Thomas's Choir, and
 Soloists. Conductor: Dr. Straube.
 LYONS (La Doua), 10.0—Commercial
 Notes. 10.15—Science Talk.
 MONTE CENERI, 10.0—News. 10.5
 (approx.)—Sacred Music. The St.
 Cecilia Choir and the Station
 Quintet. Conductor, Mario Vicari.
 10.30—Sermon.
 MOSCOW (No. 1), 10.15—Literary
 Programme.
 MUNICH, 10.0—Reading. 10.15—See
 Leipzig.

SUNDAY Feb. 4

10 a.m. (contd.)

PARIS (Poste Parisien), 1.0—Waltzes from "Frühling" (Lehar), "Der Rosenkavalier" (Richard Strauss). 10.10—News. 10.30—Records.
 PARIS (Radio-Paris), 10.0—Book-keeping Lessons. 10.40—Spanish Lesson.
 PRAGUE (No. 1), 10.0—Station Orchestra, conducted by Jeremias Cerny (Cello). Symphonic Poem, "The Demon (Karel). Symphony No. 2 (Ridky).
 ROME, 10.0—See Turin.
 SOTTENS, 10.0—Records.
 STOCKHOLM, 10.0—Service from Upsala.
 STRASBOURG, 10.0—Orchestra. 1.45—Service.
 STUTTGART, 10.0—Viola d'amore and Guitar Recital. Allegretto (18th Century). Two Pieces for the Lute. Sonata (Stamitz). 10.30—See Leipzig.
 TRIESTE, 10.0—Religious Address. 10.20—For Farmers.
 TURIN, 10.0—Mass from the Church of the Annunciation, Florence.
 VIENNA, 10.0—Reading. 10.20—Symphony No. 2 (Bruckner), etc. conducted by Alpenburg. Julius Wolfsohn (Pianoforte).
 WARSAW, 10.0—Roman Catholic Service (contd. from 9.30 a.m.). 10.57—Fanfare from St. Mary's Church, Cracow.

11 a.m.

ALGIERS, 11.30—Sacred Music. 11.45—Russian Music.
 BARCELONA, 11.0—Chimes; Weather.
 BERLIN, 11.0—See Hamburg.
 BEROMÜNSTER, 11.0—Reading. 11.15—Records. 11.30—Time; Weather; News. 11.40—Orchestra.
 BRATISLAVA, 11.15—Military Band.
 BRESLAU, 11.0 (approx.)—Military Band.
 BRUSSELS (No. 1), 11.0—Records.
 BRUSSELS (No. 2), 11.0—Orchestra.
 BUCHAREST, 11.0—Records.
 BUDAPEST (No. 1), 11.0—Roman Catholic Service. 11.30—Orchestra, conducted by Ludwig Raliter. Emile Telmányi (Violin).
 DEUTSCHLANDSENDER, 11.0—Greetings; Concert. 11.55—Time Signal.
 FRANKFURT, 11.5—Military Band.
 HAMBURG, 11.0—The Guilds Orchestra and Choir. Conductor: Adolf Secker. 11.55—Time; Weather.
 HEILSBURG, 11.0—See Hamburg.
 HILVERSUM, 11.0—Service. 11.40—Time. 11.41—Film Review.
 HUIZEN, 11.10—Records. 11.55—Orchestra, conducted by van Woud. Knights of the King (Ketelbey). Overture, "Bal masqué" (Auber). Ländliches Hochzeitsfest (Czibulka). De Fremersburg (Koenenman). In the Mystic Land of Egypt (Ketelbey).
 KALUNDBORG, 11.0—Time and Chimes from the Town Hall. 11.0—French Music—Orchestra from the State Broadcasting Building. Overture, "Armide" (Lully). Dance Suite and Minuet, "Le bourgeois gentilhomme" (Lully). Ballet Music, "Les Indes galantes" (Rameau). Rondo, "Les deux avarés" (Grétry). Suite, "Carmen" (Bizet). Overture, "Le roi Pa dit" (Delibes). Petite suite (Debussy).
 LAHTI, 11.0—Time; Service in Swedish.
 LANGENBERG, 11.0—Military Band from Iserlohn.
 LEIPZIG, 11.0—Orchestra.
 MONTE CENERI, 11.0—The Station Orchestra. Conductor; Leopoldo Casella. 11.29—Time; Weather. 11.31—Records. 11.55—News.
 MUNICH, 11.0—Military Band.
 PARIS (Poste Parisien), 11.0—New Records. 11.30—Concert.
 PRAGUE (No. 1), 11.0—Chimes. 11.5—News. 11.15—Military Band.
 REYKJAVIK, 11.40—Weather.
 ROME, 11.30—Records. 11.45—Light Music. In the interval, Time; Announcements.
 SOTTENS, 11.0—Records. 11.30—News. 11.35—Records.

STOCKHOLM, 11.0—Service. 11.45—Weather; Ice Report.
 STRASBOURG, 11.30—Roman Catholic Service in German.
 STUTTGART, 11.5—Military Band from the Schlossplatz.
 TOULOUSE, 11.0—Dance Refrains. 11.30—Orchestra. 11.45—Songs.
 TURIN, 11.0—Bible Reading. 11.30—Records. 11.45—Light Music.
 VIENNA, 11.0—"Wiener Symphoniker" (contd. from 10.20 a.m.). 11.30—Wiener Symphoniker. Conductor: Holzer.
 WARSAW, 11.5—Announcements. 11.10—Weather. 11.15—Philharmonic Orchestra, conducted by Wilkimirski. Krzywicz (Songs), and Bukin (Pianoforte). In the interval, Music Talk.

12 noon

ALGIERS, 12.0—Russian Music (contd. from 11.45 a.m.). 12.5—Dance Refrains. 12.20—Military Music. 12.30—The Station Orchestra.

PARIS (Poste Parisien), 12.15—Sound Film Music. 12.45—News. 12.50—Songs by Paul Weil.
 PARIS (Radio-Paris), 12.0—Organ Recital. 12.30—Bilboquet in the Park. 12.45—Records.
 PRAGUE (No. 1), 12.0—Military Band. 12.30—For Farmers.
 RADIO-NORMANDIE, 12.0—Concert. In the interval, News.
 REYKJAVIK, 12.0—Service.
 ROME, 12.0—See Turin.
 SOTTENS, 12.0—Records.
 STRASBOURG, 12.0—Gramophone Records. 12.45—News.
 STUTTGART, 12.0—Topical Talk. 12.15—Guessing Competition on Records.
 TOULOUSE, 12.0—Military Music. 12.15—Operetta Arias. 12.30—Roman Catholic Service. 12.45—A Viennese Orchestra.
 TURIN, 12.0—Time, Announcements. 12.5 (approx.)—Light Music. 12.45—Variety.
 VIENNA, 12.0—"Wiener Symphoniker" (contd. from 11.30 a.m.).

Farmers. 1.30—"Confetti"—Carnival Sequence, with Records.
 PARIS (Eiffel Tower), 1.0—News. 1.15—Dance Music.
 PARIS (Poste Parisien), 1.0—Songs by Paul Weil. 1.30—Concert.
 PARIS (Radio-Paris), 1.0—The Pascal Orchestra.
 PRAGUE (No. 1), 1.0—For Farmers. 1.15—Announcements.
 PRAGUE (No. 2), 1.30—German Transmission: For Farmers; For Workers.
 ROME, 1.0—Variety.
 STRASBOURG, 1.0—Time. 1.1—Military Band, from Morhange.
 STOCKHOLM, 1.0—The Örnsköldsvik Orchestra, conducted by Ekblad. Gerda Lundequist (Recitations). Symphony No. 9 in C minor (Haydn). Recitation, Bergliot (Björnstjerne Björnson) with Music by Grieg. Piece for Clarinet and Strings (Broman). Suite No. 7 for Strings (Aterberg).
 STUTTGART, 1.0—Guessing Competition on Records. 1.45—For Farmers.

(b) Canzonetta, (c) Djaevledans. Three Songs: (a) Du Naal af Guld. (b) Dagen er omme, (c) Skaersommervise. Dance Suite, "Den lille Havfrue."
 KAUNAS, 2.30—For Children.
 LAHTI, 2.0—Market Prices. 2.5—Talk. 2.15—Dialogue. 2.35—Talk. 2.45—Songs. 2.50—Talk.
 LANGENBERG, 2.0—Stories from the Childhood of Great Germans. 2.20—Chess Lesson. 2.40—Radio Report from a Youth Hostel.
 LEIPZIG, 2.0—Folk Songs. 2.15—Erich Flinsch (Pianoforte). Ballad in F minor (Chopin). Mignon (Schumann). Bunte Blätter (Schumann). Rhapsody in E flat (Brahms). Study in F minor (Liszt). 2.40—Talk: Theosophy.
 MADRID (EAJ7), 2.0—Chimes; Time; Theatre Notes. 2.5 (approx.)—Popular Music.
 MOSCOW (No. 1), 2.15—For Children. 2.55—Time.
 MUNICH, 1.0—"Confetti"—Carnival Sequence. 2.30—Play for Children.
 PARIS (Radio-Paris), 2.0—The Pascal Orchestra.
 PRAGUE (No. 2), 2.0—Song Recital. 2.30—For Women.
 RADIO-NORMANDIE, 2.0—Dance Music and Variety.
 STOCKHOLM, 2.0—Reading for Children. 2.30—Sonia Berger (Songs) and F. Ebersson (Piano).
 STRASBOURG, 2.0—Talk for Farmers in German.
 STUTTGART, 2.0—Military Band.
 TOULOUSE, 2.0—Accordion Solos. 2.15—For Farmers. 2.30—Opera Music.
 TURIN, 2.30—Records; Sports Notes.
 VIENNA, 2.0—Book Review. 2.25—Records—Famous Artists.
 WARSAW, 2.0—For Farmers. 2.20—Orchestra, from Lwów.

3 p.m.

ATHLONE, 3.0—Variety.
 BARCELONA, 3.0—For Invalids.
 BERLIN, 3.0—See Heilsberg.
 BEROMÜNSTER, 3.0—Male Voice Choir (contd. from 2.30 p.m.).
 BRESLAU, 3.0—Orchestra.
 BUCHAREST, 3.0—Rural Programme.
 BUDAPEST (No. 1), 3.0—Orchestra. 3.30—Talk.
 DEUTSCHLANDSENDER, 3.0—Wind Instruments. In the Interval from 3.30—3.45—Talk: Farewell to "Green Week."
 FRANKFURT, 3.0—For Young People.
 HAMBURG, 3.0—See Heilsberg.
 HEILSBURG, 3.0—Königsberg Opera House Orchestra and the Radio Choir, conducted by Brückner.
 HILVERSUM, 3.0—Concertgebouw Orchestra and Karl Freidberg (Pianoforte). 3.40—Records.
 HUIZEN, 3.0—Variety. 3.40—For Invalids.
 KALUNDBORG, 3.0—Fini Henriques Concert (contd. from 2.25 p.m.).
 KAUNAS, 3.0—For Scouts. 3.20—Temperance Talk. 3.30—For Housewives. 3.50—Records.
 LAHTI, 3.0—Orchestra. Conductor: Erkki Linko.
 LANGENBERG, 3.0—For Children. 3.30—Orchestra.
 LEIPZIG, 3.0—Station Orchestra, conducted by Weber.
 MADRID (EAJ7), 3.0—Popular Music.
 MONTE CENERI, 3.0—News; Light Music from Lugano.
 MORAVSKA-OSTRAVA, 3.0—Station Orchestra.
 MOSCOW (No. 1), 3.0—News. 3.30—Communist Party Programme.
 MUNICH, 3.0—Orchestra.
 PARIS (Radio-Paris), 3.0—For Children.
 PRAGUE (No. 1), 3.0—Orchestra.
 ROME, 3.0—For Children; Weather; Sports Notes. 3.15—Talk. 3.30—Records; Sports Notes.
 SOTTENS, 3.0—Orchestra. Conductor: Echenard.
 STOCKHOLM, 3.0—English Lesson. 3.30—Records.
 STRASBOURG, 3.0—The Conservatoire Concert Society Orchestra, conducted by Philippe Gaubert, relayed from Paris.
 STUTTGART, 3.0—For Young People.
 TOULOUSE, 3.0—Waldeufel Waltzes. 3.30—Film Music. 3.45—Orchestra.
 VIENNA, 3.0—Records; Famous Artists. 3.40—Talk: Syria and Mount Lebanon.
 WARSAW, 3.0—For Children, from Lwów. 3.30—Riccardo Stracieri, Baritone, on Records. 3.45—Reading.



Eugenie Uminska, the Polish violinist who plays at Warsaw on Saturday, February 3, (5.20 p.m.) and again on Thursday, 8th, in the Karlowitz Memorial Concert there

BARCELONA, 12.0—Records.
 BERLIN, 12.5—Orchestra.
 BEROMÜNSTER, 12.0—Orchestra. 12.40—For Farmers.
 BRATISLAVA, 12.0—Military Band 12.30—For Farmers. 12.45—Tides.
 BRESLAU, 12.0—Orchestra.
 BRUSSELS (No. 1), 12.0—The Station Orchestra, conducted by Walpot. Armande Bank (Songs).
 BRUSSELS (No. 2), 12.0—Mickey's Club Jazz Attraction.
 BUCHAREST, 12.0—News. 12.15—Records: Light Music.
 BUDAPEST (No. 1), 12.0—Orchestra (contd. from 11.30 a.m.).
 DEUTSCHLANDSENDER, 12.0—Concert.
 FRANKFURT, 12.0—Topical Talk. 12.15—Light Music.
 HAMBURG, 12.5—Orchestra. Conductor: Secker.
 HEILSBURG, 12.0—Orchestra.
 HILVERSUM, 12.0—Film Review. 12.10—Kovacs Lajos and his Orchestra; Records.
 HUIZEN, 12.0—Orchestra (contd. from 11.55 a.m.). 12.40—Talk on Art.
 JUAN-LES-PINS (Radio Côte D'Azur), 12.0—Roman Catholic Service. 12.30—Amusement Guide.
 KALUNDBORG, 12.0—Talk in English: Current Economic Problems. 12.20—Talk in German: Deterioration of the German Language. 12.40—Topical Talk in French.
 LAHTI, 12.30—The Helsinki Municipal Orchestra.
 LANGENBERG, 12.0—Orchestra.
 LEIPZIG, 12.0—Orchestra.
 MONTE CENERI, 12.0—News (contd. from 11.55 a.m.). 12.5—Professor G. Rubino (Clarinet). 12.30—Wireless Notes. 12.35—Dance Records.
 MUNICH, 12.0—Orchestra.
 PARIS (Eiffel Tower), 12.30—Dance Music by the Médinger Band.

1 p.m.
 ALGIERS, 1.0—Amusement Guide; News. 1.5—Station Orchestra.
 ATHLONE, 1.0—Variety.
 BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records.
 BERLIN, 1.0—Dialogue. 1.25—Fairy Tales. 1.40—Talk.
 BEROMÜNSTER, 1.0—For Farmers. 1.30—Basle Winter Sports Results.
 BRESLAU, 1.0—News. 1.10—Talk: Business Women. 1.30—Anecdotes. 1.40—"To be continued"—Story with Records.
 BRNO, 1.0—For Farmers.
 BRUSSELS (No. 1), 1.0—News. 1.10—Mickey's Club Jazz Attraction. 1.30—"La grève des forgerons"—Poem (Coppée). 1.40—Jazz (contd.).
 BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Armande Bank (Soprano).
 BUDAPEST (No. 1), 1.0—Records.
 DEUTSCHLANDSENDER, 1.0—Songs. 1.30—Play for Children.
 FRANKFURT, 1.0—Light Music. 1.20—For Farmers.
 HAMBURG, 1.0—For Children. 1.50—The Schmalmack Quartet.
 HEILSBURG, 1.0—Chess Lesson. 1.30—History Talk.
 HILVERSUM, 1.0—Kovacs Lajos and Records. 1.40—Book Review.
 HUIZEN, 1.0—Orchestra. March, Festjubilé (Blankenburg). Selection, "Undine" (Lortzing). Valse triste (Nedbal). Ballet russe (Luigini).
 JUAN-LES-PINS (Radio Côte D'Azur), 1.0—News. 1.15—Sketch. 1.30—Concert.
 KALUNDBORG, 1.25—Records. 1.55—For Children.
 LAHTI, 1.0—Concert (contd. from 12.30 p.m.).
 LANGENBERG, 1.0—Report on Records: The Plauen Lace Industry. 1.20—Records.
 LEIPZIG, 1.0—Weather; Time; Announcements. 1.35—Folk Songs.
 MUNICH, 1.0—Time; Weather; Programme Notes. 1.10—For

TOULOUSE, 1.0—Amusement Guide; Exchange; Time. 1.5—Orchestra. 1.30—Film Music. 1.45—Protestant Service.
 TURIN, 1.0—Variety
 VIENNA, 1.30—Time; announcements. 1.40—For Farmers.
 WARSAW, 1.0—For Farmers. 1.15—Exchange; News. 1.30—Records.
 2 p.m.
 ATHLONE, 2.0—Variety.
 BARCELONA, 2.0—Sextet.
 BERLIN, 2.0—Radio Report from the German Folk-Lore Museum. 2.15—An Excursion into the Brecht Mountain—Radio Sequence.
 BEROMÜNSTER, 2.30—Male Voice Choir from St. Martin's Church. Conductor: Ernst Schwenk.
 BRESLAU, 2.30—For Children.
 BUDAPEST (No. 1), 2.0—For Farmers. 2.45—Cigany Band.
 DEUTSCHLANDSENDER, 2.15—Talk on Chess. 2.30—Records since 1900—Dialogue.
 FRANKFURT, 2.0—Military Band. Conductor: Max Eisold.
 HAMBURG, 2.0—The Schmalmack Quartet. 2.25—Three Tales.
 HEILSBURG, 2.0—Records. 2.40—Reading (Brittling).
 HILVERSUM, 2.0—Book Review. 2.10—The Concertgebouw Orchestra, from Amsterdam. Conductor, Albeit Van Paalte. Carl Friedberg (Pianoforte).
 HUIZEN, 2.0—Variety.
 KALUNDBORG, 2.0—For Children. 2.25—Fini Henriques Concert—from the State Broadcasting Building, conducted by the Composer. Pianoforte and Violin Solos—the Composer. Lilly Lamprecht and Holger Bruusgaard (Songs). Selection "Voldur Smed." Five Pianoforte Solos: (a) Albulblad. (b) Waltz, "Erouk." (c) Katten efter Musen from Miniatur-Aquareller. (d) Hønsesorgen from Melodiske Profiler. (e) Det er virkelig sandt from Billedbogen. Three Songs: (a) Grib i dit Bryst, (b) Figerne inde i Skoven, Sivkong. Three Violin Solos: (a) Violin Romance, in E,

SUNDAY Feb. 4

4 p.m.

BERLIN, 4.0—Orchestra and Choir.
 BEROMÜNSTER, 4.15 (approx.)—Records. 4.30—Chess Lesson.
 BRATISLAVA, 4.0—Variety.
 BRESLAU, 4.0—Dances and Marches.
 BRNO, 4.30—Talk. 4.45—Talk.
 BUCHAREST, 4.0—The Jean Marco Orchestra.
 BUDAPEST (No. 1), 4.0—Talk. 4.30—Reading.
 DEUTSCHLANDSENDER, 4.0—Address by Dr. Ley and Karl Cerff, followed by "Jugend ist Revolution"—a Radio Sequence (Hermann Roth). Music by Georg Blumenfaat.
 FRANKFURT, 5.0—See Deutschlandsender.
 HAMBURG, 5.0—See Deutschlandsender.
 HEILSBURG, 5.0—See Deutschlandsender.
 HILVERSUM, 5.0—For Children. 5.25—Concert. "Melody" (Pierre). Piece (Grit). Bird of Love Divine (Haydn-Wood). Klanken van Hawaii (Vogel). Bahama Mama (Gilbert). 5.40—Sports Talk.
 HUIZEN, 5.0—Service (contd. from 4.40 p.m.).
 KALUNDBORG, 5.0—Protestant Service. 5.20—Talk: Chinese Women. 5.50—Weather.
 KAUNAS, 5.0—Humorous Programme. 5.30—Time, Weather, News, Announcements. 5.50—Andrejevas (Songs).
 LYONS (La Doua), 5.0—Lyons Concert Society.
 LAHTI, 5.10—Talk. 5.35—Report on the International Boxing Championship, Sweden v. Finland.
 LANGENBERG, 5.0—See Deutschlandsender.
 LEIPZIG, 5.0—See Deutschlandsender.
 MONTE CENERI, 5.0—5.10 (approx.)—Sports Results.
 MOSCOW (No. 1), 5.30—Collective Farm Workers' Programme.
 MUNICH, 5.5—"Gesänge au Gott" (Joseph Haas), by Hauschild (Bartone). 5.25—"Block after Block"—Radio Play of Tenement Life (Peter Breuer).
 OSLO, 5.0—Orchestra. 5.15—Reading. 5.45—Music Talk.
 PARIS (Eiffel Tower), 5.45—News.
 PARIS (Radio-Paris), 5.0—Plays (contd. from 4.0).
 PRAGUE (No. 1), 5.0—German Transmission: "Emil and the Detectives"—Play (Kästner).
 ROME, 5.0—Symphony Concert (contd. from 4.0 p.m.).
 SOTTENS, 5.0—Interlude. 5.20—Records.
 STRASBOURG, 5.0—Records. 5.15—Sacred Music.
 STUTTGART, 5.0—See Deutschlandsender.
 TOULOUSE, 5.0—Thé Dansant. 5.45—Chansonnettes.
 TURIN, 5.0—Sports Talk: Football Results. 5.15—Weather.
 VIENNA, 5.0—Talk with Records. A Journey to Greece. 5.30—Paul Wertheimer reads.
 WARSAW, 5.0—Dramatic Programme. 5.40—Sound-Film Music.

6 p.m.

ALGIERS, 6.0—Records. 6.15—Roger Bourdin Programme. 6.30—Records.
 BARCELONA, 6.0—Orchestra. 6.30—Opera from the Gran Teatro del Liceo.
 BERLIN, 6.0—Light Music. 6.25—See Hamburg. 6.45—Sports Notes.
 BEROMÜNSTER, 6.0—Time; Sports Results. 6.5—Light Music. 6.45—Reading from the "Odyssey" (Homer).
 BRATISLAVA, 6.5—For Housewives. 6.15—Orchestra. Conductor: Schimpl.
 BRESLAU, 6.0—Weather. 6.5 (approx.)—"Eating in the Good Old Days"—A Radio Picture (Curt Vogt). 6.45—See Leipzig.
 BRNO, 6.15—Songs.
 BRUSSELS (No. 1), 6.0—Records. 6.15—The Station Orchestra, conducted by Leemans.
 BRUSSELS (No. 2), 6.15—Records—Italian Music.
 BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Review of the Week.
 BUDAPEST (No. 1), 6.0—Reading. 6.15—Sports Notes. 6.30—Song Recital by Helene Ladányi.
 DEUTSCHLANDSENDER, 6.0—Rural Programme—Literature and Music. 6.50—Sports Notes.
 FRANKFURT, 6.0—Variety. 6.30—Talk on Art. 6.45—Sports Notes.
 HAMBURG, 6.0—Reading. 6.25—Radio Report of the German Winter Sports in Schierke and Braunlage. 6.45—Sports Notes; Weather.
 HEILSBURG, 6.0—Song Recital by Mia Neusitzer-Thoenissen (Soprano). 6.25—See Hamburg. 6.50—Sports Notes.
 HILVERSUM, 6.0—Orchestra, conducted by de Groot. Gruss Gott, Wien (Komzak). Beim Heurigen (Kronegger). Neu Wien (Joh. Strauss). Wiener Fliederlied (Pick). Du sollst der Kaiser meiner Seele

sein (Stolz). Frühling in Wien (Stolz). Wien bleibt Wien (Schrammel). 6.40—Variety.
 HUIZEN, 6.0—Service (continued from 4.40 p.m.). 6.10—Organ Recital. 6.55—Records: Sacred Music.
 KALUNDBORG, 6.0—News; Sports Notes. 6.15—Time. 6.30—Talk.
 KAUNAS, 6.0—Songs (continued from 5.50 p.m.). 6.10—Talk. 6.30—Lithuanian Music.
 LANGENBERG, 6.0—"In Mussolini's Homeland"—Report with Records. 6.30—German Poems—Reading. 6.45—Sports Notes.
 LEIPZIG, 6.0—Winter Sports Notes. 6.20—Dance Records. 6.40—Sports Notes. 6.45—Paul Lincke Concert. The Leipzig Symphony Orchestra, conducted by the Composer. March. Overture, "Lysistrata." Waltz. Romance. Selection, "Grigri." Idyll. Waltz. Serenade. March. MONTE CENERI, 6.15—Sports Results; News; Records: Swiss Marches. 6.45—News.
 MOSCOW (No. 1), 6.0—For Collective Farm Workers. 6.20—News.
 MUNICH, 6.0—"Block after Block"—Play (continued from 5.25 p.m.). 6.25—Weather; Sports Report. 6.45—See Leipzig.
 OSLO, 6.0—Music Talk. 6.15—News. 6.30—Concert.
 PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Topical Programme. 6.45—Variety.
 PARIS (Poste Parisien), 6.45—Roman Catholic Notes.
 PARIS (Radio-Paris), 6.0—Max Francy and his Orchestra.
 PRAGUE (No. 1), 6.0—News in German. 6.5—Records. 6.10—News. 6.15—One Act Comedy (Kästner).
 ROME, 6.0—Symphony Concert (continued from 4.0 p.m.). 6.30—News.
 SOTTENS, 6.0—Talk: Sunday Schools. 6.30—Sports Notes.
 STOCKHOLM, 6.0—Evenson. 6.15—Weather; News. 6.30—"Canaries sometimes sing"—Comedy in Three Acts (Frederick Lonsdale). 7.45—Military Band: Swedish Marches.
 STRASBOURG, 6.0—Sacred Music (continued from 5.15 p.m.). 6.15—Records.
 STUTTGART, 6.0—Song Recital with Commentary. 6.45—Sports Notes.
 TOULOUSE, 6.0—News. 6.15—Military Band Music. 6.30—Russian Songs. 6.45—Orchestra—Spanish Rhapsody (Ravel).
 TURIN, 6.0—Time; Football Results; Dopolaro Announcements. 6.15—Records. 6.45—Announcements; Sports Notes; Records.
 VIENNA, 6.0—Schumann Pianoforte Recital by Czarniawsky. Faschingschwank aus Wien. Carneval. 6.50—Time; Announcements.
 WARSAW, 6.0—Announcements. 6.30—Topical Talk. 6.45—Theatre Guide. 6.50—To-day's Motto. 6.52—Opera Music. The Station Orchestra. Conductor: Oziminski. Michalowski (Bass). Selection, "Boris Godunov" (Mussorgsky). Songs: (a) Aria, Boris Godunov (Mussorgsky), (b) Serenade, "Faust" (Gounod), (c) Prologue to "Marya" (Statkowski). Scene, Trio and Finale from "I Lombardi" (Verdi). Ballet Music from "Hamlet" (Thomas).

7 p.m.

ALGIERS, 7.0—Operetta Arias. 7.35—Solos.
 BARCELONA, 7.0—Opera (contd. from 6.30 p.m.).
 BERLIN, 7.0—Announcements. 7.5—"Frau Musica." The Chamber Orchestra, Forty Violins, Cellists and Viola Players.
 BEROMÜNSTER, 7.0—Reading. 7.15—Little Known Sonatas of Beethoven—Recital by Walter Rehberg.
 BRESLAU, 7.0—See 6.45 Leipzig. 7.45—See Munich. 7.55—See Leipzig.
 BRUSSELS (No. 1), 7.0—The Station Orchestra (contd. from 6.15 p.m.). 7.15—Religious Address. 7.30—Wireless Notes, Music Review.
 BRUSSELS (No. 2), 7.0—Records. 7.15—Religious Talk. 7.30—News. 7.55—Music Review.
 BUCHAREST, 7.0—Song Recital by Marie Snejina, with Orchestral Accompaniment. 7.20—Station Orchestra. Overture, "Czar and Carpenter" (Lortzing). Ballet Scene, "Hamlet" (Thomas).
 BUDAPEST, (No. 1), 7.0—Comedy. DEUTSCHLANDSENDER, 7.0—See Stuttgart.
 FRANKFURT, 7.0—See Stuttgart.
 HAMBURG, 7.5—See Berlin.
 HEILSBURG, 7.5—See Berlin.
 HILVERSUM, 7.0—Orchestra. Für Herz und Gemüt (Komzak). Selection, "Tiefend" (d'Albert). Selection, "The Trumpeter of Säckingen" (Nessler). Selection, "La Bohème" (Puccini). 7.40—Time; News. 7.55—Station Orchestra, conducted by Nico Treep. Alex de Haas (Humorous Items).
 HUIZEN, 7.0—Records: Sacred Music. 7.25—Football Report. 7.30—Religious Address. 7.55—Orchestra. Conductor: Gerritsen. Overture, "The Italian Girl in Algiers" (Rossini). Selection, "Aida" (Verdi). Popular Songs. Selection, "Chant d'Amour" (Schubert-Berté).
 KALUNDBORG, 7.0—Time from the Town Hall. 7.1—Concert. March (Möller). Concert Overture, Hamlet (Gade). Fantasia on Danish Military Songs (arr. Nielsen). Waltz (Lumbye). Ballet Music, "Et Folkesagn" (Hartmann). Five Choral Songs. Festival Polonaise (Dyring). Ballet Music (Heise). Waltz (Bruun). Festival Music, "Den kongelige Gaest" (Börresen). Gallop, Tutti-Frutti (Dehn).
 KAUNAS, 7.0—Talk. 7.20—Diebaytite (Songs). 7.40—Talk.
 LANGENBERG, 7.0—See Stuttgart.
 LEIPZIG, 7.0—Paul Lincke Concert (contd. from 6.45 p.m.). 7.45—See Munich. 7.55—The Leipzig Symphony Orchestra. Conductor and Pianoforte: Blumer. Waltzes, Orchestral and vocal.
 MADRID (EAJ7), 7.0—Chimes. Announcements. 7.5 (approx.)—Dance Music.
 MONTE CENERI, 7.0—Orchestra.
 MUNICH, 7.0—See 6.45 Leipzig. 7.45—Satirical Radio Sequence (Franz Weichenmayr).
 OSLO, 7.0—Time. 7.1—Dramatic Programme.
 PALERMO, 7.0—Announcements. 7.20—Records. In the interval, Sports; Time; News. 7.45—Opera Music. Orchestra, conducted by Russo. In the intervals, Literary Talk; Announcements.
 PARIS (Eiffel Tower), 7.0—Variety. 7.15—Weather; News. 7.30—Records. Part I: Grieg Music. Part II: Light Music.
 PARIS (Poste Parisien), 7.0—Catholic Notes. 7.15—News. 7.20—Sports Notes. 7.30—Records. Seventeenth Century Dance (Haydn). Prelude in B minor (Bach). Melodies (Schumann). The Prophet Bird (Schumann). Mazurka in A flat (Chopin). Selection, "The Dusk of the Gods" (Wagner).
 PARIS (Radio-Paris), 7.0—Topical Talk. 7.10—Radio-Paris Circus.
 PRAGUE (No. 1), 7.0—The Czech Philharmonic Orchestra, conducted by Zemlinsky from the Smetana Hall. Introductory Talk. Overture, "Schwanda the Piper" (Weinberger). Pianoforte Concerto in E flat (Beethoven). Burlesque for Pianoforte and Orchestra (R. Strauss). Symphony, Das Lied von der Erde (Mahler). In an interval, Talk on Art Appreciation.
 RADIO-NORMANDIE, 7.30—Concert.
 REYKJAVIK, 7.45—For Children.
 ROME, 7.0—News. 7.10—Folk Songs. 7.50—Popular Orchestral Concert. Concerto (Wieniawski). Overture, The Mastersingers (Wagner). Dances, La vida breve (Fallan), etc.
 SOTTENS, 7.0—Literary Talk. 7.25—Aimée van der Wiele. Harpsichord Concerto (Bach). French Suite in E (Bach). 7.45—Symphonic Jazz.
 STOCKHOLM, 7.0—"Canaries sometimes sing" (Lonsdale), (contd. from 6.30 p.m.).
 STRASBOURG, 7.0—Medical Talk. 7.15—Sports Talk. 7.30—Time; News. 7.45—Records.
 STUTTGART, 7.0—"Wie einst im Mai"—Musical Comedy (Kollo and Bredschneider).
 TOULOUSE, 7.0—Opera Music. 7.15—News. 7.30—Chamber Music. Chant sans paroles (Tchaikovsky). Ständchen (Schubert). Spring Song (Mendelssohn). Anitra's Dance, Peer Gynt Suite (Grieg). 7.45—Operetta Music.
 TURIN, 7.0—See Rome.
 VIENNA, 7.0—Variety Concert. The Schmatzer Quartet; "Wiener Symphoniker" conducted by Holzer; Soloists.
 WARSAW, 7.0—Opera Music (contd. from 6.52 p.m.). 7.50—News.

8 p.m.

ALGIERS, 8.0—Time. 8.2—Sports Talk. 8.15—Variety. 8.25—News. 8.30—The Station Orchestra, conducted by Defosse.
 ATHLONE, 8.30—Time. 8.31—Station Orchestra. 8.50—Mary Burke Collins (Soprano).
 BARCELONA, 8.0—Opera (contd. from 6.30 p.m.).

9 p.m.

ALGIERS, 9.0—News; Records. 9.10—The Station Orchestra. 9.55—News.
 ATHLONE, 9.5—Play. 9.35—William Fortune (Tenor). 9.50—Station Orchestra.
 BARCELONA, 9.0—Records.
 BERLIN, 9.0—News. 9.30—"Frau Musica" (contd. from 7.5 p.m.).
 BEROMÜNSTER, 8.0—News. 8.10—Musical and Dramatic Programme.
 BRESLAU, 8.0—See 7.55 p.m. Leipzig.
 BRUSSELS (No. 1), 8.0—The Station Orchestra, conducted by Walpot. French Military March (Saint-Saëns). Waltz Potpourri (Robrecht). 8.15—Sketch. 8.30—Orchestra (contd.). Oriental Melody (Armandola). Potpourri (Schreiber). 8.45—Songs.
 BRUSSELS (No. 2), 8.0—Symphony Orchestra. March, "Tannhäuser" (Wagner). Selection, "The Barber of Bagdad" (Cornelius). Variations for Cello and Orchestra (Boëllman). Serenade (R. Strauss). Bourrée fantasque (Chabrier). 8.45—Recitation (Falkland).
 BUCHAREST, 8.0—Talk. 8.15—Station Orchestra. Manchurian Sketches (Glan). Waltz (Kern). Slav Dance (Dvořák). Gopak (Mussorgsky). 8.45—News.
 BUDAPEST (No. 1), 8.0—Comedy. 8.50—News.
 DEUTSCHLANDSENDER, 8.0—See 7.0 Stuttgart.
 FRANKFURT, 8.0—See 7.0 Stuttgart.
 HAMBURG, 8.0—See 7.5 Berlin.
 HEILSBURG, 8.0—See 7.5 Berlin.
 HILVERSUM, 8.0—Orchestra. 8.15—Hawaiian Music by Gino Bordin and his Orchestra.
 HUIZEN, 8.0—Orchestra (contd. from 7.55 p.m.). 8.40—News. 8.45—Popular Songs. 8.55—Records.
 JUAN-LES-PINS (Radio Côte d'Azur), 8.0—Amusement Guide; Sports Notes. 8.10—Concert.
 KALUNDBORG, 8.0—Concert (contd. from 7.1 p.m.).
 KAUNAS, 8.0—Orchestra. 8.30—Sports Notes. 8.35—Educational Talk. 8.55—Dance Music.
 LAHTI, 8.0—News in Finnish. 8.10—News in Swedish.
 LANGENBERG, 8.0—See 7.0 Stuttgart.
 LEIPZIG, 8.0—Concert (contd. from 7.55 p.m.).
 MADRID (EAJ7), 8.0—Dance Music.
 MONTE CENERI, 8.0—"Jack emigra"—Comedy in One Act (Gino Rocca). 8.30—Scandinavian Music by the Station Orchestra. Overture, Nachklänge aus Ossian (Gade). Pieces (Grieg): (a) Pastoral, (b) Norwegian Folk March, (c) Nocturne, (d) March of the Dwarfs. March (Sinding).
 MOSCOW (No. 1), 8.0—German Literary Programme. 8.55—Chimes.
 MUNICH, 8.0—Radio Sequence (contd. from 7.45 p.m.). 8.10—Concert from Leipzig.
 OSLO, 8.0—Dramatic Programme. 8.40—Weather. 8.45—News.
 PALERMO, 8.0—Opera Music.
 PARIS (Eiffel Tower), 8.0—Records.
 PARIS (Poste Parisien), 8.10—"Caracalla"—One-Act Tragedy in Verse (Dumanoir-Clerville). 8.45—Concert.
 PARIS (Radio-Paris), 8.0—Music Hall Programme, conducted by André. 8.30—News. 8.45—Music Hall (contd.).
 PRAGUE (No. 1), 8.0—Philharmonic Orchestra (contd. from 7.0 p.m.).
 REYKJAVIK, 8.10—Weather. 8.20—Announcements. 8.25—Concert. 8.50—Announcements.
 ROME, 8.0—Symphony Concert, conducted by Santarelli. Soloist, Arrigo Serato (Violin).
 SOTTENS, 8.0—Symphonic Jazz.
 STOCKHOLM, 8.0—Military Band. 8.45—Weather; News.
 STRASBOURG, 8.0—Press Review in German; Lottery Results; News. 8.30—"The Merry Widow"—Operetta (Lehár).
 STUTTGART, 8.0—"Wie einst im Mai"—Musical Comedy (contd. from 7.0 p.m.).
 TOULOUSE, 8.0—Orchestra. 8.15—Bal Musette. 8.30—A Viennese Orchestra. 8.45—Hawaiian Guitar Music.
 TURIN, 8.0—Two Operas (Fallan) (contd. from 7.50 p.m.).
 VIENNA, 8.0—"The Wiener Symphoniker" (contd. from 7.0 p.m.). 8.45—News.
 WARSAW, 8.0—Talk: The New Year in China. 8.15—Humorous Programme from Lwów.

SUNDAY Feb. 4

9 p.m. (contd.)

BEROMÜNSTER, 9.0—Musical and Dramatic Programme. 9.15—Sports Notes. BRATISLAVA, 9.25—News in Hungarian. BRESLAU, 9.0—See 7.55. Leipzig. 9.30—News. 9.50—Time; Local News. BRNO, 9.25—Orchestra. BRUSSELS (No. 1), 9.0—Orchestra. Overture, "Zampa" (Hérold). In a Chinese Temple Garden (Ktelbey). 9.15—"Le Billet de Faveur"—Sketch (Wicheler). 9.40—Orchestra. Suppé Potpourri (Mikhailov). Padilla Potpourri (Salabert). Sambre-et-Meuse (Planquette). BRUSSELS (No. 2), 9.0—Orchestra. Tarantella, Venezia e Napoli (Liszt). Waltz, "Der Rosenkavalier" (R. Strauss). Polovtsian Dances, "Prince Igor" (Borodin). "Cello Solos": (a) Gavotte (Bach), (b) Waltz (Jongen). Dances, "Nell Gwynn" (German). BUDAPEST (No. 1), 9.0—The Imre Magyar Cigány Band. DEUTSCHLANDSENDER, 9.0—News. 9.45—Weather. FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.25—Local News. 9.45—"Fünf Stockwerke"—Musical Sketch. HAMBURG, 9.0—News. 9.30—See 7.5 Berlin. HEILSBURG, 9.0—News. 9.30—See Berlin. HILVERSUM, 9.0—Hawaiian Music. 9.10—Station Orchestra. Conductor: Louis Zimmermann (Violin). Marche solennelle (Tchaikovsky). Violin Concerto in G minor (Bruch). 9.40—Hawaiian Music by Gino Bordin and his Orchestra. 9.55—Kovacs Lajos and his Orchestra. HUIZEN, 9.0—Records. 9.5—Orchestra. Conductor: Gerritsen. Rosa Spier (Harp). Overture, "L'épreuve villageoise" (Grétry). Harp Concerto (Handel). Five German Dances (Mozart). Harp Solos: (a) Schubert Potpourri

(Torrecek), (b) Al Ruscello (Tedeschi), (c) Mazurka (Hasselmanns). 9.55—News. JUAN-LES-PINS (Radio Côte d'Azur), 9.0—News. 9.10—Concert. KALUNDBORG, 9.0—News. 9.10—Reading (Zangwill). 9.30—Serenade in G (Sinding) for Two Violins and Pianoforte. 9.50—Dance Music from the Wivex Restaurant. KAUNAS, 9.0—Dance Music. LANGENBERG, 9.0—Time; News. 9.20—Report on Records: The German Winter Sports, 1934. 9.45—Dance Music. LEIPZIG, 9.0—Concert (contd. from 7.55 p.m.). 9.30—News; Time; Sports Notes. MADRID (EAJ7), 9.30—Chimes; Time. 9.35—Sextet. MONTE CENERI, 9.0-9.10—Sports Notes. MOSCOW (No 1)—9.0—Chimes. 9.5—International Broadcast. MUNICH, 9.0—See 7.55 Leipzig. 9.30—Time; Weather; News; Sports Notes. OSLO, 9.0—Topical Talk. 9.15—Kinderszenen (Schumann), by Daniel Lövdal, Pianoforte. 9.45—Dance Records. PALERMO, 9.0—Opera Music. PARIS (Poste Parisien), 9.0—Concert. PARIS (Radio-Paris), 9.0—Music Hall. 9.30—Sports Notes; News. 9.45—Music Hall (contd.). PRAGUE (No. 1), 9.0—Time; News. 9.25—See Brno. RADIO-NORMANDIE, 9.0—Variety. REYKJAVIK, 9.0—Chimes; News. 9.30—Reading. ROME, 9.0—Symphony Concert (contd. from 8.0). SOTTENS, 9.0—News. STOCKHOLM, 9.0—Chamber Orchestra, conducted by Tor Mann. Tage Broström (Violin). Three Pieces for Strings (Purcell): (a) Allemande, (b) Sarabande, (c) Cebell Violin Concerto (Tartini). Two Pieces for Strings (Haquinius). Suite for Strings (Liljefors). STRASBOURG, 9.0—"The Merry Widow" (Lehár) (contd. from 8.30). 9.30—Press Review; News. 9.45 (approx.)—"The Merry Widow" (contd.).

STUTTGART, 9.0—Time; News. 9.15—Topical Talk. 9.25—Local News. 9.45—Gramophone Records. TOULOUSE, 9.0—Concert Version "Mirella"—Opera (Gounod). 9.45—Hunting Horn Solos. TURIN, 9.0—Opera (contd. from 8.0 p.m.). VIENNA, 9.5—Dance Music: Announcements. WARSAW, 9.0—Humorous Programme (contd. from 8.15 p.m.). 9.15—Sports Notes. 9.25—Dance Music.

10 p.m.

ATHLONE, 10.0—Dublin Choristers String Quartet. 10.25—T. E. Atwood (Baritone). 10.40—Station Orchestra. BARCELONA, 10.0—Records. 10.45—Chess Lesson. BERLIN, 10.0—"Frau Musica" (contd. from 7.5). BRESLAU, 10.5—Orchestra. BRUSSELS (No. 1), 10.0—News. 10.10—Paul Moreau and his Orchestra, from the Scala Tavern. BRUSSELS (No. 2), 10.0—Spanish Dances (Fallá). 10.0—News. 10.10—See Brussels No. 1. BUDAPEST (No. 1), 10.0—Cigány Band. 10.15—Emile Roosz Viennese Orchestra. Potpourri (Morena). Empfehlung (Popper). Prelude in C sharp minor (Rachmaninov). Waltz, "The Count of Luxembourg" (Lehár). Tango (Buday). Wienerlied (Engelberger). Petite Marche Viennoise (Kreisler). DEUTSCHLANDSENDER, 10.10—See Munich. FRANKFURT, 10.0—Dance Band. Hospach (Bass); Fritz Kullmann (Pianoforte). HEILSBURG, 10.0—See 7.5 Berlin. HILVERSUM, 10.0—Kovacs Lajos and his Band. 10.40—Records. HUIZEN, 10.0—Orchestra. Conductor: Gerritsen. Prelude, Cortège and Air de Danse (Debussy). Nuages (Debussy). Trépak (Debussy). 10.20—10.40—Evening Prayer and Sacred Music on Records. JUAN-LES-PINS (Radio Côte d'Azur), 10.0—Request Programme. 10.30—Variety. KALUNDBORG, 10.0—Dance Music.

LANGENBERG, 10.0—Dance Music. LEIPZIG, 10.0—News. 10.10—See Munich. MADRID (EAJ7), 10.0—Sextet. MADRID (EAQ), 10.30—Spanish Two-Steps, followed by Programme relayed from Madrid (EAJ7). After the Relay, News. MOSCOW (No. 1), 10.0—International Broadcast. 10.5—Talk in English: Stalin. MUNICH, 10.0—News; Sports Notes. 10.10—Station Orchestra, conducted by Winter. Overture (Sullivan). Waltz from the Symphonie fantastique (Berlioz). Extracts from the Carnival Suite (Schumann). Carnival Suite (Huber-Anderach). Carnaval romain (Berlioz). OSLO, 10.0—Dance Records. PALERMO, 10.0—News. PARIS (Poste Parisien), 10.0—Concert. 10.10—News. PARIS (Radio-Paris), 10.0—Music Hall. PITTSBURGH, 10.0—Vesper Services. 10.30—Grand Hotel. REYKJAVIK, 10.0—Records: Symphony No. 6 (Tchaikovsky); Dance Music. ROME, 10.0—Symphony Concert (contd. from 8.0). STRASBOURG, 10.0—"The Merry Widow" (Lehár) (contd. from 8.30 p.m.). 10.30—Dance Music. STUTTGART, 10.0—Dance Music. TOULOUSE, 10.0—Songs. 10.15—News. 10.30—A Viennese Orchestra. 10.45—Film Music. TURIN, 10.0—Opera (contd. from 8.0). VIENNA, 10.0—Dance Music (contd. from 9.5 p.m.). WARSAW, 10.0—News. 10.5—Dance Music.

11 p.m.

ATHLONE, 11.0—Time; News; Weather. BRESLAU, 11.0—Orchestra. BRUSSELS (No. 1), 11.0—Orchestra. BRUSSELS (No. 2), 11.0—See Brussels (No. 1). DEUTSCHLANDSENDER, 11.0—See 10.10 Munich. FRANKFURT, 11.0—See Stuttgart. HILVERSUM, 11.0—Records.

KALUNDBORG, 11.0—Time and Chimes, from the Town Hall. 11.2—Dance Music. LANGENBERG, 11.0—Dance Music. LEIPZIG, 11.0—See Munich. MADRID (EAJ7), 11.0 (approx.)—Baritone Songs in connection with the Music Competition. MADRID (EAQ), 11.0—See Madrid (EAJ7). MOSCOW (No. 1), 11.0—Talk in English. 11.5—Talk in Swedish: Stalin. MUNICH, 11.0—Josef Hermann Larsen Concert, conducted by the Composer. March. Ballet Fantasia. Waltz. Gavotte. Intermezzo. Indian Dance. Slow Waltz. Lala. Perpetuo. PITTSBURGH, 11.0—Popular Concert, from New York. RADIO-NORMANDIE, 11.0—Variety. REYKJAVIK, 11.0—Tchaikovsky Symphony Records (contd. from 10.0 p.m.). STUTTGART, 11.0—Serenade. TOULOUSE, 11.0—Operetta Music. Selection, "The Dollar Princess" (Fall). Selection, "Rose Marie" (Friml). 11.15—Dance Music.

12 midnight

FRANKFURT, 12.0—See Stuttgart. MADRID (EAJ7), 12.0—Chimes. MADRID (EAQ), 12.0—Variety. PITTSBURGH, 12.0—Popular Concert, from New York. 12.30—(Monday) Joe Penner, from New York. RADIO-NORMANDIE, 12.0—News in English. 12.15 (Monday)—Light Music. REYKJAVIK, 12.0—Dance Records. SCHENECTADY, 12.45 (Monday)—Variety Programme, from New York. STUTTGART, 12.0—Serenade. TOULOUSE, 12.0—News. 12.5 (Monday)—Chansonnettes. 12.15—Military Band.

1 a.m. (Monday)

RADIO-NORMANDIE, 1.0—News. 1.15—Dance.

2 a.m. (Monday)

RADIO-NORMANDIE, 2.0—Dance Music.

MONDAY (February 5)

NATIONAL

Time Signals: Big Ben.—10.15 a.m., 12 noon, 5.15 p.m., 6.30 p.m., 12 midnight. Greenwich.—10.30 a.m., 1.0 p.m., 4.45 p.m., 6.0 p.m., 9.0 p.m., 11.30 p.m. 10.15 a.m. (Daventry)—Service. 10.30 (Daventry)—Weather, etc. 10.45—11.0 (Daventry)—"Living in Cumberland." Mr. Wilfrid Roberts. 12 noon—Cinema Organ (T. Jenkins). 12.45 p.m.—Western Studio Orchestra. Edith Williams (soprano). 2.0 (except Scottish)—For Schools. 2.5—2.25 (ex. Scottish)—"Science and Agriculture." Mr. 2.30—History. 2.0—4.0 (Scottish)—Records. Broadcasts to Schools. 3.0 (except Scottish)—Records. 3.15—3.35 (except Scottish)—Sports. 3.35—Early Stages in German—IV. 4.0 (Daventry)—Neysa Forshaw (Violin). William Busch (Pianoforte). 4.30 (Daventry)—Scottish Studio Orchestra. 5.15 (except Daventry)—The B.B.C. Dance Orchestra. 5.15 (Daventry)—The Children's Hour. 6.0—"The First News." 6.30—The Foundations of Music. Haydn String Quartets, played by The Stratton String Quartet. 6.50—New Books. Mr. I. M. Parsons. 7.5—7.25—"Economics in a Changing World." Commander Stephen King-Hall. 7.30—"The National Character." Professor Moritz Bonn: "Views from Abroad"—I. 8.0—André Charlot presents The Charlot Hour. New Series. 9.0—"The Second News." 9.20—"The Far East." "The Student Returns." Dr. Helena Wright. 9.35—The B.B.C. Orchestra (Section C), conducted by Joseph Lewis. Ben Williams (tenor). 10.45—Reading from Carlyle. (To-day is the anniversary of the death of Carlyle). 10.50—12.0 (Daventry)—Sydney Kyte and his Band, from the Piccadilly Hotel. 11.0—11.30 (London)—Television (Baird Process).

REGIONAL

Time Signals: Big Ben.—10.15 a.m., 12 noon, 5.15 p.m., 6.30 p.m., 12 midnight. Greenwich.—10.30 a.m., 1.0 p.m., 6.0, 10.15, 11.30 a.m., 1.0 p.m. (except Midland)—Service. 10.30—11.0 (ex. Midland)—National. 12 noon—A Ballad Concert. 12.45 p.m.—Haydn Heard Band. 2.0 (except Scottish)—Arthur Salisbury and his Orchestra. 2.0 (Scottish)—Gramophone Records. 2.25 (Scottish)—Test for Schools. 2.30—2.55 (Scottish)—National. 3.0 (except Scottish)—The Midland Studio Orchestra. 3.10—3.30 (Scottish)—Nature Study. 3.35 (Scottish)—National. 4.0—5.15 (except Midland)—National. 5.15—The Children's Hour. 6.0—"The First News." 6.30 (Midland and London)—The Midland Studio Orchestra. Reginald Morgan (tenor). 6.30 (West)—"Blynfab": "Nin Doi." 6.30 (North)—"Boys and Girls in Search of Work"—4. 6.30 (Scottish)—Records. 6.50 (West, Scottish till 7.30)—Mendelssohn. Edith Gunter (soprano). Anne Burton Hyett (contralto). Hubert Pengelly (pianoforte). The Western Studio Orchestra. 6.50 (North)—Records. 7.30 (London, Midland, North)—"Microphone Tour"—No. 3. 8.0 (London)—The Wireless Military Band. Rene Cook (pianoforte). 8.0 (Midland)—"When Stately Dames Made Cursey Low." 8.0 (West)—Two One-Act Dramas in Welsh. 8.0 (North)—The Augmented Studio Orchestra. Muriel Liddle (harp). 8.0 (Scottish)—A Concert by the Students of the Royal Blind School, Craigmillar Park, Edinburgh. 8.40 (Scottish)—The S.C.W.S. Prize Brass Band. 9.15—Jack Payne with his Orchestra. 10.0—Mr. Gillie Potter. 10.15—"The Second News." 10.30—12.0 (Midland till 11.0)—Sydney Kyte and his Band. 11.0—11.30 (Midland)—Television (Baird Process) (Sound).

EMPIRE SUMMARY

For wavelengths, see S.W. List
Transmission 1 (GSF, GSD) G.M.T. 8.0 a.m.—Big Ben. Empire News and Dairy Produce Notes. 8.15—Scotland v. Wales.* 9.5—Tom Jenkins (Cinema Organ). 9.35—Talk: "The British Empire." "The Colonial Empire—Malaya." 10.5—Close Down. Transmission 2 (GSG, GSE) 12 noon—Big Ben. Tom Jenkins (Cinema Organ). 12.45 p.m.—Haydn Heard and his Band. 1.45—Close Down. Transmission 3 (2—4 p.m. GSE, GSB; 4—6 p.m. GSB, GSA) 2.0 p.m.—Big Ben. Empire News. 2.15—Arthur Salisbury and his Orchestra. 3.0—Talk: "The British Empire." "The Colonial Empire—Malaya." 3.30—A Branch of Arbutus.* A Song Cycle. 4.0—Neysa Forshaw (Violin). William Busch (Pianoforte). 4.30—The Scottish Studio Orchestra. 5.0—Empire News (second reading). 5.15—The B.B.C. Dance Orchestra. 6.0—Close Down. Transmission 4 (6.15—7.45 p.m. GSD, GSB; 7.45—10.45 p.m. GSB, GSA) 6.15 p.m.—Big Ben. Empire News and Dairy Produce Notes. 6.30—The Midland Studio Orchestra. Reginald Morgan (Tenor). 6.45—"Fifty Years of Golf." Mr. J. H. Taylor. 7.0—Orchestra (contd.). 7.30—Music Our Fathers Knew.† Rene Cook (Pianoforte). 8.0—The Wireless Military Band. Rene Cook (Pianoforte). 9.15—Jack Payne with his Orchestra. 10.0—"Heard at Hogsnotion." Mr. Gillie Potter. 10.15—Empire News. 10.30—Dance Music. 10.45—Close Down. Transmission 5 (GSC, GSA) 11.0 p.m.—Big Ben. The B.B.C. Theatre Orchestra.* 12 midnight—Stories in Music.† 12.30 a.m.—"Fifty Years of Golf." 12.45—Empire News. 1.0—Close Down.

* Electrical Recording. † Gramophone Records.

PRINCIPAL EVENTS CONCERTS

6.0 p.m. Leipzig and German Stations: Carnival music. 6.0 "Vienna: "Carnival in Vienna." 6.30 "Stockholm: Station Orchestra; Borovsky (Pfte.). 7.10 "Frankfurt, Stuttgart: Fifth Monday Concert. 7.15 "Budapest: Philharmonic; Béla Bartok (Pfte.). 7.15 "Hilversum: Orchestral and vocal. 7.30 "Eiffel Tower: Music from the French Provinces. 7.45 "Vienna: The "Wiener Symphoniker." 8.0 "Brussels No. 2: Popular orchestral. 8.10 "Beromünster: Orchestral—Austrian Composers. 8.40 "Munich, etc.: Eventide music. 9.40 "Hilversum: The Orchestra, conductor, de Groot. 9.50 "Hamburg, etc.: Orchestral Dances. 10.0 "Stuttgart, etc.: Deutschlandsender: Potpourri. OPERA, OPERETTA 7.5 p.m. Warsaw: "Martha" (Flotow). 8.0 "Radio-Paris: "The Grand Duchess" (Offenbach). CHAMBER MUSIC 7.0 p.m. Bucharest: The Sarvas Quartet. 8.25 "Prague: The Ondříček Quartet. 9.15 "Kalundborg: Quintet (Dittersdorf), Sextet (Brahms). RECITALS 4.0 p.m. Beromünster: Songs in three Languages. 4.10 "Warsaw: The History of Pianoforte Sonatas—I. 4.25 "Deutschlandsender: Wilhelm Strienz—Songs. 6.20 "Prague: Anita Kubelikova (Violin). 7.0 "Oslo: Song and Violin. 7.45 "Bucharest: Song and Pianoforte (8.15). 8.45 "Strasbourg: Marcel Ciampi (Pianoforte Waltzes). 9.0 "Stockholm: Arias, Songs, harp solos. 9.10 "Huizen: Pianoforte. PLAYS AND TALKS 4.30 p.m. Stockholm: The "Herzogin Cecilie." 5.30 "Beromünster: Talk: "The present position of Music in Europe." 7.15 "Beromünster: "The Machine, the Demon" (C. Endres). 8.40 "Turin: "The Hayfork" (Lady Gregory). DANCE MUSIC 5.0 p.m. Brussels No. 1; 9.30, Munich, etc., Warsaw; 9.35, Budapest; 10.10, Brussels No. 2; Posté-Parisien. MISCELLANEOUS 7.30 p.m. Kalundborg: Cabaret.

MONDAY Feb. 5

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.

BERLIN, 5.15—Gym. 5.30—Motto. 5.35—See Hamburg.
 BEROMÜNSTER, 5.30—Gym.
 BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Records.
 BUDAPEST (No. 1), 5.45—Gym.; Records.
 DEUTSCHLANDSENDER, 5.0—Weather; Press Review. 5.15—Gym. 5.30—Weather; Motto. 5.35—See Hamburg.
 FRANKFURT, 5.0—Choral; Time. 5.5—Gym. 5.55—Time; Announcements.
 HAMBURG, 5.0—Time; News; For Farmers. 5.15—Gym. 5.30—Time; Weather. 5.35—Orchestra.
 HEILSBURG, 5.15—Gym. 5.35—See Hamburg.
 LANGENBERG, 5.0—Choral; Motto. 5.5—Concert. 5.40—Gym.
 LEIPZIG, 5.30—Gym. 5.45—Records.
 MOSCOW (No. 1), 5.15—Announcements. 5.30—Music.
 MUNICH, 5.30—Gym. 5.45—Choral; Motto; Records.
 PRAGUE (No. 1), 5.15—Chimes, Gym; Music; News.
 SOTTENS, 5.55—Gym.
 STUTTGART, 5.0—Choral; Weather; Gym. 5.55—Time; News.

6 a.m.

BERLIN, 6.0—See Hamburg.
 BRESLAU, 6.15—News. 6.25—Orchestra.
 FRANKFURT, 6.5—Weather. 6.10—Records.
 HAMBURG, 6.0—News; Motto. 6.20—Orchestra.
 KALUNDBORG, 6.0—Gym.
 LAHTI, 6.5—Morning Prayers in Swedish. 6.30—Morning Prayers in Finnish.
 LANGENBERG, 6.0—Time; News. 6.10—Choral; Motto; Records.
 LEIPZIG, 6.0—Records. 6.15—News; Time. 6.25—Orchestra.
 MOSCOW (No. 1), 6.0—Music.
 MUNICH, 6.0—Records. 6.15—Time; Weather; Announcements. 6.25—Orchestra.
 PARIS (Radio-Paris), 6.45—Gym.
 ROME, 6.45—Gym.
 SOTTENS, 6.0—Gym.
 STOCKHOLM, 6.20—Gym. 6.45—Morning Prayer.
 STUTTGART, 6.0—News. 6.5—Weather. 6.10—See Frankfurt.
 TURIN, 6.45—Gym.
 WARSAW, 6.0—Time; Hymn; Gym. 6.20—Records; News. 6.55—For Housewives.

7 a.m.

BERLIN, 7.0—Gym. 7.15—Records.
 DEUTSCHLANDSENDER, 7.45—Gym. for Women.
 FRANKFURT, 7.0—Records. 7.15—Announcements. 7.25-7.45—Gym.
 HAMBURG, 7.0—Weather; For Women.
 HEILSBURG, 7.0—Morning Prayer. 7.30—Gym. for Women.
 HILVERSUM, 7.40—Records.
 HUIZEN, 7.40—Bible Reading. 7.55—Records.
 KALUNDBORG, 7.30—Service from the Cathedral.
 LANGENBERG, 7.0—Records. 7.15—Time; Tides. 7.25—For Women. 7.35—Gym. for Women.
 LEIPZIG, 7.0—Orchestra.
 MOSCOW (No. 1), 7.15—For Children.
 MUNICH, 7.0—Orchestra.
 PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News; Hints for Housewives.
 PARIS (Radio-Paris), 7.0—Records. 7.15—News. 7.45—Gym.
 RADIO-NORMANDIE, 7.15—Records. 7.30—News.
 ROME, 7.0—Time; News; Market Prices.
 STUTTGART, 7.0—Records. 7.15—Tides; Snow Report. 7.25—Gym. 7.45—For Farmers.
 TURIN, 7.0—Time; News.
 WARSAW, 7.0—Announcements.

8 a.m.

BERLIN, 8.0—See Deutschlandsender. 8.45—For Women.
 BRESLAU, 8.0—Gym. for Women. 8.20—Time; News.
 BUDAPEST (No. 1), 8.45—News.
 DEUTSCHLANDSENDER, 8.0—For Schools. 8.40—Talk: The Kindergarten.
 HILVERSUM, 8.0—Records.
 HUIZEN, 8.0—Records.
 KALUNDBORG, 8.0—Service.
 LEIPZIG, 8.0—Gym. for Women. 8.40—Exchange; Announcements.
 LYONS (La Doua), 8.0—Weather and News.
 MOSCOW (No. 1), 8.55—Time.
 MUNICH, 8.0—Gym.
 PARIS (Radio-Paris), 8.0—Records.
 PRAGUE (No. 1), 8.50—News.
 RADIO-NORMANDIE, 8.0—Records. 8.15—Legal Talk. 8.50—Reading.
 TOULOUSE, 8.0—Dance Refrains. 8.30—News. 8.35—Orchestra. 8.45—Operetta Extracts.
 VIENNA, 8.20—News; Weather.

9 a.m.

BERLIN, 9.0—Weather; News. 9.10—Market Prices.
 BEROMÜNSTER, 9.20—For Schools.
 BRATISLAVA, 9.10—News in Hungarian.
 BRESLAU, 9.10—"Ski-ing" Radio Report for Schools. 10.40—Time; Weather.
 BUDAPEST, 9.0—Topical Talk; Records.
 DEUTSCHLANDSENDER, 9.0—News. 9.10—For Schools. 9.50—Boxing for Schools.
 FRANKFURT, 9.0—News.
 HAMBURG, 9.0—Announcements; Records. 9.50—News.
 HEILSBURG, 9.40—News; Weather.
 HILVERSUM, 9.0—Records. 9.40—Religious Programme. 9.55—Recitations.
 HUIZEN, 9.0—Records.
 LANGENBERG, 9.0—Time; News. 9.10—Talks: (a) Sport; (b) The German Folk Song, with Illustrations.
 LEIPZIG, 9.10—For Schools.
 MORAVSKÁ-OSTRAVA, 9.15—Police Band Concert. Conductor: Sochor.
 MOSCOW (No. 1), 9.0—News.
 MUNICH, 9.0—For Women.
 PRAGUE (No. 1), 9.0—News. 9.5—News in German. 9.10—Records. 9.15—See Moravská-Ostrava.
 STUTTGART, 9.0—News. 9.10—Violin, Cello and Viola Recital. 9.50—Opera Records. Selection, "Der Freischütz" (Weber). "Lohengrin" (Wagner). Verdi Opera Pot-pourri.
 VIENNA, 9.20—For Schools. 9.50—Tides.

10 a.m.

BERLIN, 10.25—Exchange. 10.30—See Hamburg.
 BRATISLAVA, 10.0—Tides.
 BRESLAU, 10.50—News.
 BUDAPEST (No. 1), 10.0—Records. 10.10—Tides.
 DEUTSCHLANDSENDER, 10.15—Weather. 10.30—Talk. 10.45—Topical Talk.
 FRANKFURT, 10.0—Variety. 10.40—Announcements.
 HAMBURG, 10.0—The Nutcracker Suite (Tchaikovsky) on Records. 10.30—Orchestra conducted by von Soson.
 HEILSBURG, 10.0—Ice Report. 10.30—Orchestra.
 HILVERSUM, 10.0—Recitations. 10.10—Concert conducted by Wins. 10.40—Recitations. 10.55—Concert.
 HUIZEN, 10.10—Service. 10.40—Religious Reading.
 KALUNDBORG, 10.0—Weather. 10.10—Fish Market Prices. 10.45—For Schools.
 LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange. 10.45—News. 10.59—Time; Weather.
 LANGENBERG, 10.0—Radio Play for Schools. 10.30—Variety; Records.
 LEIPZIG, 10.0—Post Office Propaganda; Records. 10.40—Weather; News; Time.
 LYONS (La Doua), 10.30—Orchestra.
 MOSCOW (No. 1), 10.15—Literary Programme.
 MUNICH, 10.5—Market Prices; Time; Weather; News. 10.30—For Farmers.
 OSLO, 10.15—Service.

PRAGUE (No. 1), 10.0—Records. 10.5—Orchestra. 10.55—For Farmers.
 RADIO-NORMANDIE, 10.0—Variety.
 STRASBOURG, 10.30—Orchestra, conducted by Maurice de Villers. Fête polonaise (Chabrier). Suite, "Les deux pigeons" (Messager). Scherzo in B minor (Chopin). Symphonic Poem, Moldavia (Smetana). Suite, Musiques intimes (Florent Schmitt). Selection, "Der Rosenkavalier" (Richard Strauss). Two Hungarian Dances (Brahms).
 STUTTGART, 10.0—Opera Records (contd. from 9.50 a.m.). 10.25—Post Office Propaganda; Records. 10.55—Weather.
 TURIN, 10.15—Quintet.
 VATICAN CITY, 10.0—Religious Information in Italian.
 VIENNA, 10.30—For Women. 10.55—Weather.
 WARSAW, 10.40—Press Review. 10.50—Theatre Guide. 10.57—Fanfare from St. Mary's Church, Cracow.

11 a.m.

BARCELONA, 11.0—Chimes, Weather.
 BERLIN, 11.5—See Hamburg.
 BEROMÜNSTER, 11.0—Records: Folk Music. 11.29—Time, Weather, News. 11.40—Records, Sound-Film Music.
 BRATISLAVA, 11.0—For Farmers. 11.10—News in Slovak. 11.20—Record.
 BRESLAU, 11.0—The Station Orchestra.
 BUCHAREST, 11.0—Exchange; Tides; Records.
 BUDAPEST (No. 1), 11.0—Chimes. 11.5—Records.
 DEUTSCHLANDSENDER, 11.0—Weather; Greetings. 11.10—Records: Instrumental Music. 11.55—Time Signal.
 FRANKFURT, 11.0—See Breslau.
 HAMBURG, 11.5—Prices, Weather, Announcements, For Farmers. 11.30—Orchestra.
 HEILSBURG, 11.0—Orchestra.
 HILVERSUM, 11.0—Concert. 11.40—Orchestra, conducted by de Groot.
 HUIZEN, 11.0—Religious Reading. 11.10—Records. 11.40—Police Notes. 11.55—Records.
 KALUNDBORG, 11.0—Time, Chimes from the Town Hall. 11.2—The Leonard Gylmark String Ensemble, from the Bellevue Strandhotel.
 LAHTI, 11.15—Shipping Notes.
 LANGENBERG, 11.0—Wind Instrument Concert. 11.45—News.
 LEIPZIG, 11.0—See Breslau.
 LYONS (La Doua), 11.0—Orchestra.
 MADRID (EAJ7), 11.45—Announcements.
 MONTE CENERI, 11.0—News, Records. 11.29—Time Signal, Weather. 11.31—The Bordetas Argentine Orchestra. 11.55—News.
 MORAVSKÁ-OSTRAVA, 11.35—Station Orchestra, conducted by Musil.
 MUNICH, 11.0—See Breslau.
 OSLO, 11.10—Exchange. 11.55—Time.
 PRAGUE (No. 1), 11.0—For Farmers. 11.10—Records. 11.25—News. 11.35—See Moravská-Ostrava.
 RADIO-NORMANDIE, 11.0—Concert.
 REYKJAVIK, 11.0—Weather.
 ROME, 11.30—Records.
 SOTTENS, 11.28—Time. 11.30—News. 11.40—Orchestra, conducted by Moser.
 STOCKHOLM, 11.30—Weather, Ice Report. 11.45—Exchange. 11.55—Time.
 STRASBOURG, 11.0—Orchestra (contd. from 10.30).
 STUTTGART, 11.0—See Breslau.
 TURIN, 11.0—Quintet. 11.30—Records. 11.45—News.
 VIENNA, 11.0—The "Wiener Symphoniker," conducted by Josef Holzner.
 WARSAW, 11.5—Dance Records. 11.30—Weather. 11.33—Violin Sonata (Bach), on Records. 11.55—News.

12 noon

ALGIERS, 12.30—Records.
 BARCELONA, 12.0—For Women. 12.30—Letter Box. 12.45—Records.

BERLIN, 12.0—Records. 12.20—Light Music.
 BEROMÜNSTER, 12.0—An Interview with Joseph Schmidt (Tenor). 12.25—Time, Weather.
 BRATISLAVA, 12.45—News in German and Hungarian.
 BRESLAU, 12.0 (Orchestra (contd. from 11.0). 12.15—News. 12.25—Waltz Records.
 BRUSSELS (No. 1), 12.0—Concert. Version of "Les Cloches de Corneville"—Operetta (Planquette), on Records.
 BRUSSELS (No. 2), 12.0—Orchestra.
 BUCHAREST, 12.0—News. 12.15—Records.
 BUDAPEST (No. 1), 12.0—Records. 12.30—Orchestra.
 DEUTSCHLANDSENDER, 12.45—News.
 FRANKFURT, 12.0—See 11.0 Breslau. 12.15—Time, News. 12.35—Records.
 HAMBURG, 12.0—Exchange. 12.10—Weather, Winter Sports Report. 12.20—Musical Programme.
 HEILSBURG, 12.20—News. 12.1—Time, Weather. 12.5—Records.
 HILVERSUM, 12.0—Orchestra (contd. from 11.40).
 HUIZEN, 12.0—Records. 12.10—Organ Recital by Zwart.
 JUAN-LES-PINS (Radio Côte d'Azur), 12.30—Amusement Guide. Announcements.
 LANGENBERG, 12.0—The "Fröhliche Fünf," Toni Fassbender (Violin), August Schreiber (Cello), Edmund Kirst (Pianoforte). 12.45—News.
 LEIPZIG, 12.0—See 11.0 Breslau. 12.15—News, Time, Records.
 LYONS (La Doua), 12.30—Records.
 MADRID (EAJ7), 12.0—Chimes, Exchange, Programme Announcements. 12.15—Time.
 MONTE CENERI, 12.0—News. 12.5—Jazz Music. 12.20—Reading. 12.30—Snow Report, Records.
 MORAVSKÁ-OSTRAVA, 12.0—Orchestra (contd. from 11.35 a.m.).
 MUNICH, 12.0—See 11.0 Breslau. 12.15—Time, Weather, News. 12.25—Records.
 OSLO, 12.0—Records. In the intervals, Weather, Talk for Farmers, Exchange.
 PARIS (Eiffel Tower), 12.30—Concert.
 PARIS (Poste Parisien), 12.0—Exchange. 12.5—The Station Orchestra. In the interval, News.
 PARIS (Radio-Paris), 12.0—The Kretly Orchestra. Kretly (Violin) Musette et Tambourin (Rameau). Symphonic Extracts (Mozart). Andante from the Pianoforte Quartet (Bethoven). Romance (Schumann). Prelude (Chopin). Violin Solos: (a) La Précieuse (Couperin-Kreisler). (b) Allegretto (Boccherini). Overture, "The Crown Diamonds" (Auber). Selection, "The Barber of Seville" (Rossini). Serenade (Borodin). Berceuse de Jocelyn (Godard). Suite No. 1, "L'Arlesienne" (Bizet). Interlude (Chausson). Bouton d'or (Pierné). Les vieilles de chez nous (Lévy). Berceuse (Defosse). Serenata (Defosse). Spanish Dances (Sarasate).
 PRAGUE (No. 1), 12.0—See 11.35 Moravská-Ostrava. 12.35—Talk on Economics. 12.45—Records. 12.55—Exchange, Weather.
 RADIO-NORMANDIE, 12.0—Records. 12.30—News. 12.45—Radio Concert.
 ROME, 12.0—Records, Variety Music. In the intervals, News, Exchange, Time.
 SOTTENS, 12.0—Exchange. 12.5—Orchestra.
 STRASBOURG, 12.0—Records. 12.4—News.
 STUTTGART, 12.0—See 11.0 a.m. Breslau. 12.15—Time, News. 12.25—News, Weather. 12.35—See Frankfurt.
 TOULOUSE, 12.0—Orchestra. 12.15—Songs. 12.30—News, Exchange. 12.45—Request Music.
 TURIN, 12.0—Time, Announcements. 12.5—Records. 12.30—News. 12.45—Records.
 VIENNA, 12.0—"Wiener Symphoniker" (contd. from 11.0 a.m.).

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.5—Records.
 ATHLONE, 1.30—Time; Weather; Stock Report; Records.

BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records.
 BERLIN, 1.0—Light Music. 1.15—Weather; News; Tides. 1.35—Max Reger Records.
 BRATISLAVA, 1.5—Market Prices.
 BRESLAU, 1.0—News. 1.10—Time; Weather. 1.15—Post Office Propaganda; Records. 1.50—Market Prices; Exchange.
 BRUSSELS (No. 1), 1.0—News. 1.10—The Station Orchestra, conducted by Leemans.
 BRUSSELS (No. 2), 1.0—News. 1.10—Records.
 BUDAPEST (No. 1), 1.0—Orchestra.
 DEUTSCHLANDSENDER, 1.0—Records.
 FRANKFURT, 1.0—Records. 1.40—Song Recital by Eva von Bülow, with Commentary.
 HAMBURG, 1.0—Music. 1.15—News. 1.35—Selection, "The Gipsy Baron"—Operetta (Joh. Strauss) on Records.
 HEILSBURG, 1.0—Records.
 HILVERSUM, 1.0—Orchestra (contd. from 11.40 a.m.). 1.40—Organ. 1.55—Talk with Records.
 HUIZEN, 1.0—Organ Recital (contd. from 12.10). 1.40—For Schools.
 JUAN-LES-PINS (Radio Côte d'Azur), 1.0—News. 1.15—Concert.
 KALUNDBORG, 1.50—For Housewives.
 LANGENBERG, 1.0—Chamber Music. Pianoforte Solo: Fanchingschwank (Schumann). Fantasia for Violin and Pianoforte (Schubert). 1.50—Meat Market Prices.
 LEIPZIG, 1.0—News; Exchange. 1.15—Art Report. 1.25—Reading (Max Dauthendey). 1.45—Topical Talk. 1.50—Extracts from the Phantasiestücke (Schumann) for Pianoforte, Violin, and Cello.
 LYONS (La Doua), 1.0—Concert. In the Interval: News, Exchange, and Music Review.
 MUNICH, 1.0—Time; Weather; News; Exchange; Programme Notes. 1.20—Post Office Propaganda; Records. 1.50—Cinderella.
 PARIS (Eiffel Tower), 1.0—Exchange. 1.15—News. 1.30—For Farmers. 1.45—Labour Market.
 PARIS (Radio-Paris), 1.0—The Kretly Orchestra (contd. from 12 noon). 1.20—Exchange; News. 1.40 (approx.)—Orchestra (contd.).
 PRAGUE (No. 1), 1.0—Exchange in German.
 PRAGUE (No. 2), 1.30—Records. 1.40—For Housewives. 1.50—Song Recital.
 REYKJAVIK, 1.15—Variety.
 ROME, 1.0—Records, Variety Music.
 STRASBOURG, 1.0—Time; Exchange.
 STUTTGART, 1.0—See Frankfurt.
 TOULOUSE, 1.0—Amusement Guide; Market Prices. 1.5—Military Music. 1.15—Opera Music. 1.30—Accordion. 1.45—Chansonnettes.
 TURIN, 1.0—Records. 1.15—Exchange.

2 p.m.

BARCELONA, 2.0—Sextet. 2.20—Records.
 BERLIN, 2.0—Exchange. 2.20—Records.
 BEROMÜNSTER, 2.30—For Women. 2.59—Time.
 BRESLAU, 2.10—Talk: Animal Life in Winter. 2.30—Reading. 2.50—Talk: Winter Relief Work.
 BRNO, 2.40—Talk.
 BRUSSELS (No. 1), 2.0—For Schools.
 BRUSSELS (No. 2), 2.0—For Schools.
 BUDAPEST (No. 1), 2.0—Orchestra. 2.30—Educational.
 DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—For Women. 2.45—Book Review.
 FRANKFURT, 2.0—Song Recital (contd. from 1.40 p.m.). 2.30—Weather. 2.40—Time; Economic Notes.
 HAMBURG, 2.0—Exchange. 2.40—Shipping and Aviation Report. 2.50—Ice Report.
 HEILSBURG, 2.0—Market Prices Exchange. 2.15—Book Review. 2.30—For Children.
 HILVERSUM, 2.0—Talk with Records. 2.25—Organ. 2.40—Records.
 HUIZEN, 2.0—For Schools. 2.15—Horticultural Talk. 2.55—Dress-making Lesson.
 KALUNDBORG, 2.0—Teddy Petersen and his Band.

MONDAY Feb. 5

2 p.m. (contd.)

LANGENBERG, 2.0—Chamber Music. 2.30—Exchange. 2.50—Topical Talk.

LEIPZIG, 2.0—Extract from Phantasiestücke (contd. from 1.50 p.m.). 2.20—Talk: Taxation in 1933. 2.40—Exchange.

MADRID, (EAJT), 2.0—Chimes; Time. 2.10—(approx.)—Concert. In the Interval: Exchange.

MOSCOW (No. 1), 2.15—For Children. 2.55—Time, Weather; Theatre Notes.

MUNICH, 2.0—Cinderella (cont. from 1.50 p.m.). 2.10—German Folk Songs by Hella Welter-Wolf. At the Piano, Richard Staab. 2.30—Reading. 2.50—Weather.

PARIS (Eiffel Tower), 2.0—Exchange. 2.15—Economic Notes. 2.30—Exchange. 2.45—Theatre Review.

PARIS (Poste Parisien), 2.0—Exchange.

PRAGUE (No. 1), 2.55—Exchange.

PRAGUE (No. 2), 2.0—Song Recital. 2.15—German Transmission; For Women; Records. 2.45—News in German.

SOTTENS, 2.28—Time.

STUTTGART, 2.30—"The Rhine" Variety.

TOULOUSE, 2.0—News; Exchange.

VIENNA, 2.30—Time; Weather; Market Prices. 2.50—Talk: Butter-making.

WARSAW, 2.25—News. 2.30—Economic Notes. 2.40—Boy Scouts' Report. 2.45—Aviation Report and Anti-Gas Drill. 2.55—Viola and Pianoforte Recital. Old French Dance Suite (Marais). Sicilienne (Fauré). Réverie (Wieniawski).

3 p.m.

BARCELONA, 3.0—For Invalids.

BERLIN, 3.0—See Heilsberg.

BEROMÜNSTER, 3.0—Popp Quartet.

BRATISLAVA, 3.0—Orchestra. Conductor: Kornel Schimpl.

BRESLAU, 3.0—Concert.

BRNO, 3.50—Reading.

BUDAPEST (No. 1), 3.0—For Women.

DEUTSCHLANDSENDER, 3.0—Concert.

FRANKFURT, 3.0—See Munich.

HAMBURG, 3.0—See Heilsberg.

HEILSBURG, 3.0—A Day in the Gutenfeld Region—Radio Report. 3.30—"Feierabend Suite" (Arno Hufeld) Orchestra, conducted by Eugen Wilcken.

HILVERSUM, 3.0—Records.

HUIZEN, 3.0—Dressmaking. 3.40—Bible Reading; Songs.

KALUNDBORG, 3.0—Teddy Petersen and his Band.

KAUNAS, 3.0—Talk: Aerial Defence. 3.40—Orchestra, conducted by Lechavicius.

LANGENBERG, 3.0—Records. 3.45—Talk: A Letter from Weber.

LEIPZIG, 3.0—See Munich.

MADRID (EAJT), 3.0—Concert.

MONTE CENERI, 3.0—See Beromünster.

MOSCOW (No. 1), 3.0—News.

MUNICH, 3.0—Orchestra, conducted by Kloss. Overture, "Giralda" (Adam); Andante favori (Benda); Gebet (Wolf). Heilmuth (Wolf). Ballet, "Paris and Helen" (Gluck). Selection, "The Miracle" (Hubert-dinck). German Dances (Schubert-dinck). German Dances (Schubert-dinck). An Evening in St. Petersburg (Meyer-Helmund). Waltz (Plank). Modern Dance Suite (Niemann).

PARIS (Eiffel Tower), 3.0—News. 3.15—Exchange. 3.45—Report.

PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.

PARIS (Radio-Paris), 3.45—Exchange.

PRAGUE (No. 1), 3.0—See Bratislava. 3.50—For Children.

RADIO-NORMANDIE, 3.30—Variety and Dance Music.

ROME, 3.30—For Girls. 3.55—News; Exchange.

SOTTENS, 3.0—Concert.

STUTTGART, 3.0—See Munich.

TURIN, 3.35—News. 3.45—For Children.

VIENNA, 3.0—For Children. 3.25—For Young People. 3.50—Talk: Old Musical Instruments.

WARSAW, 3.0—Viola and Pianoforte. 3.20—Mezzo-Soprano Solos by Ada Lenczewska-Slawinska. 3.40—French Lesson. 3.55—Records.

4 p.m.

BARCELONA, 4.0—For Invalids. 4.15—Television Transmission.

BERLIN, 4.0—See Heilsberg.

BEROMÜNSTER, 4.0—Songs in Three Languages: Emmi Häner.

BRATISLAVA, 4.15—Records. 4.25—Literary Talk. 4.35—Slovak Lesson. 4.50—Trio for Violin, Clarinet and Pianoforte.

BRESLAU, 4.0—Weather; Concert. 4.50—Talk.

BRNO, 4.15—Literary Report. 4.50—Records.

BUCHAREST, 4.0—Concert.

BUDAPEST (No. 1), 4.0—Orchestra. Soloist: Gizi Kármán (Songs). 4.35—Talk.

DEUTSCHLANDSENDER, 4.0—Talk: Ludwig Jahn. 4.25—Wilhelm Strienz (Songs).

FRANKFURT, 4.0—See 3.0 Munich. 4.45—Book Review.

HAMBURG, 4.0—See Heilsberg.

HEILSBURG, 4.0—"Vom ehrbaren Kaufherrn und Handelsmann"—Programme arranged by Walther Ottendorff.

HILVERSUM, 4.0—Records. 4.10—For Children. 4.40—Popular Music, conducted by v. d. Horst. Records in the Interval.

HUIZEN, 4.0—Bible Reading; Songs. 4.40—Orchestra, conducted by Hurk Lopez Salzedo (Violin).

KALUNDBORG, 4.0—German Reading. 4.30—Exchange; Fish Market Prices. 4.43—Poem. 4.45—Talk.

KAUNAS, 4.0—Orchestra. 4.10—Talk. 4.30—Talk: Bee-keeping. 4.50—Records.

LAHTI, 4.0—Orchestra. 4.25—For Women. 4.40—Agricultural Report. 4.50—News in Finnish. 4.59—Time; Weather.

LANGENBERG, 4.0—Station Orchestra. Conductor: Eysoldt.

LEIPZIG, 4.0—See 3.0 Munich. 4.50—See Breslau.

MONTE CENERI, 4.0—See Beromünster.

MORAVSKÁ-OSTRAVA, 4.50—Talk.

MOSCOW (No. 1), 4.30—Communist Party Programme.

MUNICH, 4.0—Orchestra (contd. from 3.0 p.m.). 4.50—See Breslau.

OSLO, 4.0—Radio Ensemble, conducted by Oscar Gustavson.

PARIS (Eiffel Tower), 4.0—Tourist Report. 4.15—Exchange.

PARIS (Poste Parisien), 4.50—Exchange.

PRAGUE (No. 1), 4.0—For Children. 4.5—Talk: The Subnormal Child at School. 4.15—Records. 4.35—See Bratislava. 4.50—Records.

REYKJAVIK, 4.0—Weather.

ROME, 4.5—Poetry. 4.10—Tourist Talk. 4.30—Violin Recital by Jacques Thibaud, from the Royal Philharmonic Academy.

SOTTENS, 4.0—Concert.

STOCKHOLM, 4.0—Weather. 4.5—Accordion Recital 4.30—"Round the World with the 'Herzogin Cecilie.'" 4.50—Records.

STUTTGART, 4.0—See 3.0 Munich. 4.30—Willy Reichert Records. 4.45—Interview with a Waiter.

TOULOUSE, 4.15—News; Exchange; Racing.

TURIN, 4.0—For Children. 4.10—Records. 4.30—See Rome.

VIENNA, Talk (continued from 3.50). 4.15—Roland Raupenstrauch (Pianoforte). 32 Variations in C minor (Beethoven). Praeludium (Marx). Arabesque (Marx). Tarantelle (Chopin). 4.45—Operetta Songs. Christa Roberts (Soprano): "Ball at the Savoy" (Abraham), "Liebestraum" (Komjati-Liszt), "Venus in Seide" (Stolz), "The Dubarry" (Millocker-Mackeben).

WARSAW, 4.0—Records. 4.10—Pianoforte Sonata Recital by Woytowicz, with Talk on the History of Sonatas. First Movements from the Sonatas in C minor and A (Scarlati). Sonata in D minor (Bach). 4.50—The Letter Box.

5 p.m.

BERLIN—5.0—Stories, Songs, Jokes. 5.30—Wireless Notes. 5.35—Talk: Werner Krauss. 5.50—Motto.

BEROMÜNSTER, 5.0—Records. 5.30—Talk: The present position of Music in Europe.

BRATISLAVA, 5.0—Trio (continued from 4.50 p.m.). 5.15—Hungarian Transmission.

BRESLAU, 5.10—Talk: The German Army in 1933. 5.30—Dialogue: Recreation brings Strength. 5.50—Programme Announcements; Weather.

BRNO, 5.0—Announcements. 5.15—Records. 5.25—Talk in German.

BRUSSELS (No. 1), 5.0—Dance Music by Billy Smith and his Boys.

BRUSSELS (No. 2), 5.0—Orchestra. 5.45—For Children.

BUCHAREST, 5.0—News. 5.15—Station Orchestra.

BUDAPEST (No. 1), 5.0—Talk. 5.10—Saxophone and Banjo Solos. 5.50—Talk.

DEUTSCHLANDSENDER, 5.0—Poems. 5.5—Talk: Gymnastics for Boys. 5.25—Talk by Women Workers.

FRANKFURT, 5.0—See Stuttgart. 5.45—News.

HAMBURG, 5.0—Girls' Choir. 5.25 Records. 5.45—Exchange; Market Prices. 5.50—Weather.

HEILSBURG, 5.0—Talk: Horse Breeding in East Prussia. 5.15—Market Prices. 5.25—Radio Report on the Danzig Tobacco Industry. 5.50—Weather.

HILVERSUM, 5.0—Popular Music. 5.40—Organ.

HUIZEN, 5.0—Orchestra (continued from 4.40 p.m.).

KALUNDBORG, 5.0—Talk. 5.15—English Lesson. 5.45—Weather; Announcements.

KAUNAS, 5.20—Song Recital. 5.40—News.

LAHTI, 5.10—News in Swedish. 5.15—English Lesson. 5.40—Violin Solos.

LANGENBERG, 5.0—For Young People. 5.25—French Lesson. 5.45—Exchange.

LEIPZIG, 5.0—See 4.50 p.m., Breslau. 5.10—Discussion on Music. 5.45—Exchange.

MORAVSKÁ-OSTRAVA, 5.0—Records. 5.15—Talk. 5.25—Record. 5.30—German Transmission: Theatre and Film Notes; Recitations.

MOSCOW (No. 1), 5.0—Communist Party Programme. 5.30—For Collective Farm Workers.

MUNICH, 5.0—See 4.50 p.m., Breslau. 5.10—Book Review. 5.25—Records. 5.45—Time; Weather; For Farmers.

OSLO, 5.0—German Lesson. 5.30—Concert.

PARIS (Eiffel Tower) 5.45—News.

PRAGUE (No. 1), 5.0—Records. 5.15—For Farmers. 5.25—German Transmission. Talk: The Dangers of Mountaineering.

PRAGUE (No. 2), 5.50—Talk.

RADIO-NORMANDIE, 5.30—Concert.

ROME, 5.0—Jacques Thibaud, Violin (continued from 4.30 p.m.). 5.45—Shipping; Sports Notes. 5.50—Announcements.

SOTTENS, 5.0—Educational Talk. 5.30—For Children. 5.55—Italian Lesson.

STOCKHOLM, 5.0—Records. 5.55—Talk on Hunting.

STUTTGART, 5.0—For Young People. 5.25—French Lesson. 5.45—Time; Weather: For Farmers.

TURIN, 5.0—Weather; For Farmers; Market Prices; Tourist Talk. 5.50—Dopolavoro Announcements.

VIENNA, 5.0—Operetta Songs (continued from 4.45 p.m.). 5.10—Art Notes. 5.30—Books referring to the Week's Talks. 5.35—English Lesson.

WARSAW, 5.0—Talk. 5.20—Military Programme. 5.45—Records of Layton and Johnston.

6 p.m.

ALGIERS, 6.0—Oriental Music.

ATHLONE, 6.0—For Children. 6.45—News.

BARCELONA, 6.0—Trio Concert. In the Interval at 6.30, News.

BERLIN, 6.0—See Leipzig.

BEROMÜNSTER, 6.0—Time; Weather. 6.1—Records. 6.20—English Lesson. 6.50—Light Music.

BRATISLAVA, 6.5—For Housewives.

BRESLAU, 6.0—See Leipzig.

BRUSSELS (No. 1), 6.0—Talk: The Centenary of Peter Benoit. 6.15—Records.

BRUSSELS (No. 2), 6.0—For Children. 6.30—Orchestra, conducted by Leemans.

BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Talk.

BUDAPEST, (No. 1), 6.0—Talk. 6.20—The Béla Rác Cigány Band.

DEUTSCHLANDSENDER, 6.0—See Leipzig.

FRANKFURT, 6.0—See Leipzig.

HAMBURG, 6.0—See Leipzig.

HEILSBURG, 6.0—See Leipzig.

HILVERSUM, 6.0—Organ. 6.10—Orchestra: Symphony No. 3 (Steinberg) with Commentary. 6.55—Talk.

HUIZEN, 6.0—Orchestra (contd. from 4.40 p.m.). 6.10—The Letter Box. 6.40—Police Notes. 6.55—Religious News.

KALUNDBORG, 6.0—News. 6.30—Talk.

KAUNAS, 6.0—Announcements. 6.30—Lithuanian Lesson.

LAHTI, 6.0—Violin Solos. 6.5—Talk. 6.25—Talk. 6.45—Sibelius Song Recital.

LANGENBERG, 6.0—See Leipzig.

LEIPZIG, 6.0—Transmission for all German Stations: "Carnival." The Leipzig Symphony Orchestra and the Emde Orchestra, conducted by Hilmar Weber.

LYONS (La Doua), 6.15—News from Paris.

MONTE CENERI, 6.15—News; Talk. 6.30—Records. 6.45—News.

MUNICH, 6.0—See Leipzig.

OSLO, 6.0—Announcements. 6.15—News. 6.30—Talk.

PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Theatre Review. 6.45—Topical Programme.

PARIS (Poste Parisien), 6.45—Exchange. 6.52—Science Talk.

PARIS (Radio-Paris), 6.20—Weather; For Gardeners; Exchange; Racing Results. 6.45—Film Review.

PRAGUE (No. 1), 6.0—Time; News in German. 6.5—Records. 6.10—News. 6.20—Anita Kubelikova, Violin Recital. 6.45—Talk.

PRAGUE (No. 2), 6.0—Time Signal; For Housewives. 6.5—Records. 6.20—For Workers.

RADIO-NORMANDIE, 6.30—Talk; 6.45—News.

ROME, 6.0—News in Foreign Languages. 6.30—Market Prices, Snow Report; Records. 6.50—News; Sports Notes.

SOTTENS, 6.0—Italian Lesson. 6.20—Talk. 6.45—Tourist Talk. 6.59—Weather.

STOCKHOLM, 6.0—Talk. 6.15—Weather; News. 6.30—Orchestra, conducted by Grevillius. Borovsky (Pianoforte). Symphonic Poem, Les Préludes (Liszt). Suite from Gustav Adolf II (Alfvén). Pianoforte Concerto in B minor (Tchaikovsky). In the Interval, Time.

STUTTGART, 6.0—See Leipzig.

TURIN, 6.0—Time; News in Foreign Languages. 6.30—Records. 6.50—Announcements; News; Weather.

TOULOUSE, 6.0—News. 6.15—Operetta Music. 6.30—Bal musette. 6.45—Extracts, "The Three-Cornered Hat" (Falla).

VIENNA, 6.0—Carnival in Vienna. The "Wiener Symphoniker," the Pepi Wicht Folk Music Quartet and Soloists. Conductor: Josef Holzer. In the interval: Time; Programme Announcements.

WARSAW, 6.0—Announcements. 6.25—Topical Talk. 6.47—News.

7 p.m.

ALGIERS, 7.0—Exchange. 7.10—Shipping Notes. 7.15—Weather. 7.20—For Farmers. 7.35—Lottery Results. 7.45—Two Records of Chaliapine. 7.55—News.

ATHLONE, 7.0—Gaelic Talk. 7.15—Talk: Poultry Keeping. 7.30—Station Orchestra. 7.50—Songs.

BARCELONA, 7.0—Request Records. 7.20—News. 7.30—Exchange; Talk in Catalan.

BARI, 7.0—News in Albanian.

BERLIN, 7.0—News. 7.10—See Hamburg.

BEROMÜNSTER, 7.0—Light Music. 7.15—"The Machine, the Demon." Radio Play (Endres).

BRATISLAVA, 7.10—Records. 7.45—A Play (Milan Begovitch).

BRESLAU, 7.0—News. 7.10—See Munich.

BRUSSELS (No. 1), 7.0—Records; 7.30—Theatre and Cinema Review.

BRUSSELS (No. 2), 7.0—Orchestra (contd. from 6.30 p.m.). 7.15—Talk. 7.30—Literary Talk.

BUCHAREST, 7.0—Chamber Music by the Sarvas Quartet. 7.30—Talk. 7.45—Song Recital by Stefanescu.

BUDAPEST (No. 1), 7.0—Cigány Band. 7.15—The Philharmonic Orchestra, I don't d'et'd by



The full-rigged barque "Herzogin Cecilie," about whose voyage round the world a talk is to be given from Stockholm this afternoon

MONDAY Feb. 5

7 p.m. (contd.)

Walter Herbert. Soloist: Béla Bartok (Pianoforte). Overture, "Rosamunde" (Schubert). Pianoforte Concerto in F minor (Bach). Pianoforte Concerto in C (Mozart). Symphony No. 5 (Tchaikovsky). DEUTSCHLANDSENDER, 7.0—Motto: News. 7.10—Worker's Literature and Songs—Radio Sequence (Hans Mühle). FRANKFURT, 7.0—News. 7.10—Fifth Monday Concert. Conductor: Rosbaud. Bockelmann (Bass). Concert Overture (Windspinger). Epigraphes antiques (Debussy). Rondo (Bosoni). Songs. I Pini di Roma (Respighi). HAMBURG, 7.0—News. 7.10—Radio Report: The Daily Routine of the World's Great Harbours. HEILSBURG, 7.0—News. 7.10—See Hamburg. HILVERSUM, 7.0—Talk. 7.15—Orchestra. Mme. Stottin-Molenaar (Soprano). Music to Goethe's "Egmont" (Beethoven). 7.40—S O S Messages; News. 7.55—Orchestra. Selection, "A Midsummer Night's Dream" (Mendelssohn). Till Eulenspiegels Merry Pranks (R. Strauss). HUIZEN, 7.0—Religious News. 7.10—The Letter Box. 7.40—Salvation Army Concert. C. Peters (Soprano). KALUNDBORG, 7.0—Time; Chimes from the Town Hall. 7.2—For Girls. 7.30—Cabaret. KAUNAS, 7.0—Sports Notes. 7.5—Symphony Concert from the State Theatre. In the intervals: Economic Notes; Sports Review. LAHTI, 7.0—Sibelius Song Recital (contd. from 6.45 p.m.). 7.5—Recitations. 7.20—Orchestra. 7.45—News in Finnish. LANGENBERG, 7.0—News. 7.5—Talk. 7.15—Folk Songs and Dances. The Frohe Sanger; Hermann Munk (Songs to the Lute). 7.45—Childhood in the Village—Radio Sequence (Kneips.) LEIPZIG, 7.0—News. 7.10—"Austria." 7.30—See Munich. LYONS (La Doua), 7.30—Records. 7.40—News. MADRID (EAJ7), 7.0—Chimes; Exchange; Announcements; Sports Notes. 7.15 (approx.)—Sextet. MONTE CENERI, 7.0—Variety. MUNICH, 7.0—To-day's News. 7.10—"Austria." 7.30—"Der Tulpenschwindel"—Comedy (Quirin Engasser). OSLO, 7.0—Time. 7.1—Mme. Haldis Halvorsen (Songs) and Leif Halvorsen (Violin). Violin Concerto (Mozart). Dem Unendlichen (Schubert). Nacht und Traume (Schubert). Mens jeg uenten (Grieg). En fsvane (Grieg). Chaconne (Bach). 7.50—Norwegian Poetry. PALERMO, 7.0—Announcements. 7.20—Records. In the Interval, Time; News. 7.45—Mario Pilati Music. The Composer at the Pianoforte. Ferrari (Violin); Ridoifi (Soprano). Violin Sonata in F. Eight Songs: Echi di Napoli. Quintet in D. PARIS (Eiffel Tower), 7.0—Topical Programme. 7.15—Weather. 7.25—News. 7.30—"Music of the French Provinces": Orchestra, conducted by Flamant. Le Berry (Fourdrain). Bretagne (Fontbonne). Suite provinciale (Pares). Paysage normand (Spork). PARIS (Poste Parisien), 7.0—Sound Film. 7.15—News. 7.30—Film Notes. 7.50—Records. PARIS (Radio-Paris), 7.0—Topical Talk. 7.30—Book Review. 7.50—News. PRAGUE (No. 1), 7.0—Talk. 7.10—Act I of a Musical Comedy from the Tyl Theatre. RADIO-NORMANDIE, 7.0—Request Programme. ROME, 7.0—Time; Announcements; Records. 7.40 (approx.)—See Turin. SOTTENS, 7.0—Orchestra. Conductor: Moser. Eric Bovet (Musical Saw). 7.45—Cabaret. STOCKHOLM, 7.0—Orchestra (contd. from 6.30 p.m.). 7.45—Talk by Professor Knut Lundmark: The Origin of the World. STRASBOURG, 7.15—Topical Talk in German. 7.30—Time; News. 7.45—Records. STUTTGART, 7.0—See Frankfurt. TOULOUSE, 7.0—Sound Film Music. 7.15—News; Racing; Market Prices. 7.30—Hawaiian Guitars. 7.45—Viennese Orchestra.

TURIN, 7.0—Records. 7.30—Government Notices. 7.40—Variety. VATICAN CITY, 7.0—Religious Information in Italian. VIENNA, 7.0—Wiener Symphoniker" (contd. from 6.0 p.m.). 7.30—Topical Talk. 7.45—The "Wiener Symphoniker" conducted by Rudolf Nilius. Variations on Old Danish Themes (Hamerich). Dance Fantasy (Zilcher). Overture, "Le maschere" (Mascagni). Festa campestre (Zanella). Fuge degli amanti di Chioggia (Mancinelli). Selection, "Notre Dame" (Schmidt) Extracts, "The Damnation of Faust" (Berlioz). WARSAW, 7.0—Great Thoughts. 7.5—"Martha"—Opera in Four Acts (Flotow). In the Interval, Reading. ALGIERS, 8.0—Time. 8.2—Orchestra. 8.25—Talk: Old Algiers. 8.40—News. 8.45—Violin Concerto (Lalo). The Station Orchestra. Conductor: Defosse. Soloist: Tessier (Violin). ATHLONE, 8.0—Songs. 8.5—Bay Jellett (Violin); Mrs. Boxwell (Pianoforte). 8.30—"The Pyramid" Play. BARCELONA, 8.0—Records. 8.30—Educational Programme. 8.45—News. BERLIN, 8.0—See 7.10 p.m. Hamburg. BEROMUNSTER, 8.0—Weather; News. 8.10—Orchestra. Music by Austrian Composers. BRATISLAVA, 8.0—Play (contd. from 7.45 p.m.). BRESLAU, 8.0—See 7.30 p.m. Munich. 8.40—See Munich. BRNO, 8.0—Records. 8.15—Station Orchestra, conducted by Milan Sachs. BRUSSELS (No. 1), 8.0—Dichterie—Song Cycle (Schumann) by Theo Mercier. 8.30—Wagner Festival Concert from Liège. The Symphony Concert Association, conducted by Armand Marsick. Selection, "The Flying Dutchman" Extracts, "The Valkyrie." BRUSSELS (No. 2), 8.0—Popular Orchestral. BUCHAREST, 8.0—Song Recital (contd. from 7.45 p.m.). 8.15—Pianoforte Recital by Nadia Chebap. 8.45—News. BUDAPEST (No. 1), 8.0—Philharmonic Orchestra with Bela Bartok (Pianoforte). DEUTSCHLANDSENDER, 8.0—The Willy Genssler Orchestra. FRANKFURT, 8.0—Symphony Concert (contd. from 7.10 p.m.). HAMBURG, 8.0—Radio Report: The World's Great Harbours (contd. from 7.10 p.m.). HEILSBURG, 8.0—See 7.10 p.m. Hamburg. HILVERSUM, 8.0—Orchestra (contd. from 7.55 p.m.). 8.40—Extracts; "Faust"—Opera (Gounod), by Members of the Dutch Opera House. Conductor: Van Amerom. HUIZEN, 8.0—Salvation Army Concert (contd. from 7.40 p.m.). JUAN-LES-PINS (Radio Côte D'Azur), 8.0—Amusement Guide; Exchange; News. 8.10—Sports Notes. 8.20—Reading. 8.30—Concert. KALUNDBORG, 8.0—Cabaret. 8.30—Talk. KAUNAS, 8.0—Symphony Concert (contd. from 7.5 p.m.). LAHTI, 8.0—News in Swedish. LANGENBERG, 8.0—Radio Sequence (contd. from 7.45 p.m.). 8.40—West German Review. LEIPZIG, 8.0—See 7.30 p.m. Munich. 8.40—See Munich. LYONS (La Doua), 8.0—Astronomical Talk. 8.10—Music Review. 8.20—Talk. 8.45—Concert with the Composer, Delannoy, conducting his own Works. After the Concert, News. MADRID (EAJ7), 8.0—Sextet. 8.15—8.30—News. MONTE CENERI, 8.0—Variety. 8.15—Sports Notes. 8.30—Act I of "La Bohème"—Opera (Puccini) by the Cast of the Scala, Milan (on Records). MORAVSKÁ - OSTRAVA, 8.0—Records. 8.15—Station Orchestra, conducted by Plichta. MOSCOW (No. 1), 8.55—Chimes. MUNICH, 8.0—"Der Tulpenschwindel" (contd. from 7.30 p.m.). 8.40—Eventide Music, conducted by Kloss, Hedda Dittmar (Soprano), Elisabeth Waldenau (Contralto), André Krüchäuff (Tenor), Alfons Kiechle (Bass). Konrad Scherber (Commentator). OSEO, 8.0—Norwegian Poetry.

8 p.m.

8.10—Review of Foreign Politics. 8.40—Weather. 8.45—News. PALERMO, 8.0—Mario Pilati Music (contd. from 7.45 p.m.). PARIS (Eiffel Tower), 8.0—Orchestra (contd. from 7.30). 8.15—Political Announcements. 8.30—Orchestra. Suite Lorraine (Boisdéfère). Scenes Alsaciennes (Massenet). PARIS (Poste Parisien), 8.0—Records. 8.10—Humorous Programme with Max Régner. 8.40—Exchange. 8.55—Gala Concert with Records. PARIS (Radio-Paris), 8.0—"The Grand Duchess of Gerolstein"—Operetta (Offenbach). 8.30—News. 8.45—Operetta (contd.). PRAGUE (No. 1), 8.0—Band Concert. 8.25—The Ondficek Quartet. String Quartet (Ridky). RADIO - NORMANDIE, 8.0—Records. 8.30—Baritone Solos. 8.45—Records. REYKJAVIK, 8.0—Light Music. 8.10—Weather. 8.20—Announcements. 8.25—To be announced. 8.50—Announcements. ROME, 8.0—See Turin. 8.25—Talk. 8.40—Orchestra. Gianna Perea Labia (Soprano) and Vittorio Sensi (Baritone). Serenade for Strings (Haydn). Gipsy Rondo (Haydn). Soprano Aria, "Don Pasquale" (Donizetti). Soprano and Baritone Duet, "Don Pasquale" (Donizetti). Toréador et Andalouse (Rubinstein). Trot de Cavalerie (Rubinstein). Bravoura Variations for Soprano and Orchestra (Proch). Norwegian Bridal Procession (Grieg). SOTTENS, 8.0—Cabalet (contd. from 7.45 p.m.). STOCKHOLM, 8.0—Talk (contd. from 7.45 p.m.). 8.15—Carillon Recital. 8.45—Weather; News. STRASBOURG, 8.0—Press Review in German; News; Lottery Results. 8.30—Records. 8.45—Pianoforte Recital of Waltzes by Marcel Ciampi. STUTTGART, 8.0—See 7.10 p.m. Frankfurt. TOULOUSE, 8.0—Viennese Orchestra. 8.15—Opera Music. 8.30—Military Music. 8.45—Argentine Orchestra. TURIN, 8.0—Variety. 8.40—"The Hayfork"; Comedy (Lady Gregory). VIENNA, 8.0—Wiener Symphoniker (contd. from 7.45 p.m.). WARSAW, 8.0—"Martha" (Flotow), (contd. from 7.5 p.m.).

9 p.m.

ALGIERS, 9.0—Violin Concerto (Lalo), (contd. from 8.45 p.m.). 9.5—News; Records. 9.15—Station Orchestra. 9.55—News. ATHLONE, 9.0—Soprano Solos. 9.15—Station Orchestra. 9.30—Variety. BARCELONA, 9.0—Chimes; Weather; Exchange. 9.10—Humorous Programme. 9.20—Viennese Waltzes. BERLIN, 9.0—Weather, News, Sports Notes. 9.20—Variety. BEROMUNSTER, 9.0—Music by Swiss Composers. BRATISLAVA, 9.15—News in Hungarian. BRESLAU, 9.0—See 8.40 Munich. 9.20—News. 9.40—Time; Weather; Local News. 9.55—Dance Music. BRUSSELS (No. 1), 9.0—Wagner Festival Concert (contd. from 8.30). 9.20—Recitations. 9.35—Wagner Festival Concert (contd.). Good Friday Magic from "Parsifal." Selection, "The Dusk of the Gods." BRUSSELS (No. 2), 9.0—Orchestra (contd. from 8.0 p.m.). BUDAPEST (No. 1), 9.0—Philharmonic Orchestra with Bela Bartok (Pianoforte). 9.20—News. 9.35—Dance Music. DEUTSCHLANDSENDER, 9.0—News. 9.25—Talk by Dr. Achim Heyl, leader of the German Athletic Association. 9.45—Weather. FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.25—Announcements. 9.45—Variety. HAMBURG, 9.0—News. 9.20—Variety. 9.50—"Dances of the Nations"—Station Orchestra, conducted by Gerhard Maass. Richard Bechmann and Gerhard Maass (Pianoforte Duets). HEILSBURG, 9.0—News. 9.20—See Hamburg. HILVERSUM, 9.0—Extracts, "Faust" (Gounod) (contd. from 8.40 p.m.). 9.40—Orchestra. Conductor: de Groot. Overture, "Patrie" (Bizet). Prelude, "L'Arlesienne" (Bizet). Selection, "Tales of Hoffmann" (Offenbach). Extracts. "Les Cloches de Corneville" (Planquette). Polka, "La Fille de Madame Angot" (Lecoq). Paris ancien (Messager). Five o'clock (Ravel-Branga). HUIZEN, 9.0—Salvation Army Concert (contd. from 7.40 p.m.). 9.10—Pianoforte Recital by Rooth. Chromatic Fantasia and Fugue (Bach). Sonata in G minor (Schumann). Windesrauschen (Sauer). Rhapsody No. 1 (Brahms). Scherzo in C flat minor (Chopin). In the interval, News. JUAN-LES-PINS (Radio Côte D'Azur), 9.0—News; Weather. 9.15—Dramatic Programme. KALUNDBORG, 9.0—News. 9.15—Chamber Music. String Quintet in A (Von Dittersdorf). String Sextet in B flat (Brahms). KAUNAS, 9.0—Symphony Concert (contd. from 7.5 p.m.). LANGENBERG, 9.0—Time, News. 9.20—Records. 9.45—Dance Music. LEIPZIG, 9.0—See 8.40 Munich. 9.20—News, Time. 9.35—News. 9.45—Dance Music. LYONS (La Doua), 9.0—Concert (contd. from 8.45 p.m.). MOSCOW, 9.0—Chimes. 9.5—International Broadcast. MUNICH, 9.0—Eventide Music (contd. from 8.40 p.m.). 9.20—Time, Weather, News, Exchange, Sports Notes. 9.30—Dance Music by the Station Dance Band. OSLO, 9.0—Topical Talk. 9.15—Popular Songs. PALERMO, 9.0—Mario Pilati Music (contd. from 7.45 p.m.); Records. PARIS (Poste Parisien), 9.0—Gala Concert. PARIS (Radio-Paris), 9.0—"The Grand Duchess of Gerolstein" (Offenbach), contd. from 8.0 p.m.). 9.30—Sports; News; Review by Paul Reoux. PRAGUE (No. 1), 9.0—Time, News. 9.15—News in German; Technical Talk. 9.30—Records. 9.35—Talk: Politics in Scandinavia and the Baltic Countries. RADIO-NORMANDIE, 9.0—Concert. REYKJAVIK, 9.0—Chimes, News. 9.30—Reading. ROME, 9.0—Orchestra. 9.45—(approx.)—Dance Music. In the interval, News. SOTTENS, 9.0—News. STOCKHOLM, 9.0—Recital by Wienberg (Songs) and Moreau (Harp). Arias, (a) "La Traviata" (Verdi), and (b) "The Barber of Seville" (Rossini). Reading: Flickebarn (Henning von Melsted). Harp Solos: (a) Valse romantique (de Séverac), (b) Arabesque in E (Debussy), (c) Prelude and Dance (Tournier). Songs: (a) Nenia popolare (Recli), (b) Neapolitan Songs (Tosti), (c) Granadinos (Calleja), (d) Neapolitan Barcarole (Sadere), (e) Melody (Giordano). STRASBOURG, 9.0—Pianoforte (contd. from 8.45 p.m.). 9.30—Press Review, News. 9.45 (approx.)—Pianoforte (contd.). STUTTGART, 9.0—Time, News. 9.15—Topical Talk. 9.35—News. 9.45—Records. TOULOUSE, 9.0—Concert Version, "The Land of Smiles"—Operetta (Lehár). 9.30—Light Music. TRIESTE, 9.10—Dance Music. TURIN, 9.0—Comedy (contd. from 8.30 p.m.). 9.10—Dance Music. VIENNA, 9.0—"Wiener Symphoniker" (contd. from 7.45 p.m.). 9.10—News, Weather, Announcements. 9.30—Records. After the Programme, News. WARSAW, 9.0—"Martha" (Flotow) (contd. from 7.5 p.m.). 9.30—Dance Music.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Accordion Solos. 10.50—Traditional Fiddle Solos. BARCELONA, 10.0—Soprano Song Recital. 10.30—Orchestra; followed by Records. BERLIN, 10.0—See 9.50 p.m. Hamburg. BRESLAU, 10.0—Dance Music. BRUSSELS (No. 1), 10.0—Wagner Festival Concert (contd. from 9.35 p.m.). 10.25—News. 10.35—Dance Records. BRUSSELS (No. 2), 10.0—News. 10.10—Dance Records. BUDAPEST (No. 1), 10.0—Dance Music. 10.20—Berci Rác Cigány Band. DEUTSCHLANDSENDER, 10.0—See Stuttgart. FRANKFURT, 10.0—See Stuttgart. HAMBURG, 10.0—"Dances of the Nations" (contd. from 9.50 p.m.). HEILSBURG, 10.0—See 9.50—Hamburg. HILVERSUM, 10.0—Orchestra (contd. from 9.40 p.m.). 10.25—Accordion Solos. 10.46—Orchestra. HUIZEN, 10.0—Pianoforte Recital (contd. from 9.10 p.m.). 10.10—Records. JUAN-LES-PINS (Radio Côte D'Azur), 10.0—Concert. 10.30—Variety. KALUNDBORG, 10.0—Dance Music. LANGENBERG, 10.0—See Munich. LEIPZIG, 10.0—See Munich. MADRID (EAQ), 10.30—Spanish Two Steps; News; Light Music. MUNICH, 10.0—Dance Music. PALERMO, 10.0—News. PARIS (Poste Parisien), 10.0—Gala Concert. 10.10—Jazz Records. 10.40—News; Exchange. PARIS (Radio-Paris), 10.0—"The Grand Duchess of Gerolstein" (Offenbach) (contd. from 8.0 p.m.). PITTSBURGH, 10.0—Babe Ruth Boys' Club. 10.15—KDKA Kiddies' Klub. 10.30—The Singing Lady, from New York. 10.45—Orphan Annie, from New York. RADIO-NORMANDIE, 10.0—Variety. REYKJAVIK, 10.0—Carnival Suite (Schumann) on Records. ROME, 10.0—Dance Music. STRASBOURG, 10.0—Pianoforte (contd. from 8.45 p.m.). STUTTGART, 10.0—Radio Pot-pourri, conducted by Görlich. TOULOUSE, 10.0—Opera Music. 10.15—News. 10.30—Songs. 10.45—Orchestra. TURIN, 10.0—News. VIENNA, 10.0—Records. WARSAW, 10.0—News. 10.5—Dance Music. 11 p.m. BARCELONA, 11.0—Orchestra Records. BRESLAU, 11.0—Dance Music. FRANKFURT, 11.0—Scenes from "Siegfried" (Wagner) on Records. HILVERSUM, 11.0—Orchestra (contd. from 10.45 p.m.). HUIZEN, 11.0—Records. KALUNDBORG, 11.0—Time; Chimes from the Town Hall. 11.2—Dance Music. LANGENBERG, 11.0—See Munich. LEIPZIG, 11.0—See Munich. MADRID (EAQ), 11.0—Request Programme. MUNICH, 11.0—Dance Music. PITTSBURGH, 11.0—Pat Haley. 11.15—Sports; Programme Preview. 11.30—KDKA Salon Orchestra. 11.45—Lowell Thomas, from New York. RADIO-NORMANDIE, 11.0—Variety. STUTTGART, 11.0—Transmission to Mexico, arranged by the German Overseas Institute; German Music and Spanish Music. The Station Orchestra. TOULOUSE, 11.0—Request Music. 11.15—Dance Music. 12 midnight BARCELONA, 12.0—News. MADRID (EAQ), 12.0—Variety. PITTSBURGH, 12.0—Amos n' Andy, from New York. 12.15 a.m. (Tuesday)—Baby Rose Marie, from New York. 12.30—Potash and Perlmutter, from New York. 12.45—Frances Alda, from New York. RADIO-NORMANDIE, 12.0—News in English. 12.15 a.m. (Tuesday)—Light Music. SCHENECTADY, 12.45 a.m. (Tuesday)—Stock Reports. TOULOUSE, 12.0—News; Weather; Announcements. 12.5 a.m. (Tuesday). Cabaret. 12.15—Instrumental Music. 1 a.m. (Tuesday) RADIO-NORMANDIE, 1.0—News. 1.15—Dance Music. 2 a.m. (Tuesday) RADIO-NORMANDIE, 2.0—Dance Music.

TUESDAY (February 6)

NATIONAL

For Time Signals, see Monday.
 10.15 a.m. (Daventry)—The Daily Service.
 10.30 (Daventry)—Weather Forecast for Farmers and Shipping.
 10.45 (Daventry)—"The Wise Penny." Mrs. Florence Green.
 11.0—11.20 (Daventry)—Talk.
 12 noon—Organ (R. New).
 12.30 p.m.—The Commodore Grand Orchestra, directed by Joseph Muscant.
 1.30—The Midland Studio Orchestra.
 2.0 (except Scottish)—For the Schools. Reception Test. 2.5—"Round the Country-side." 2.30—"Music": Sir Walford Davies. 3.35—"Early Stages in French"—IV.: Mons. E. M. Stephan.
 2.0—4.30 (Scottish)—See Regional.
 4.5 (except Scottish)—What's the News?—III.
 4.30 (Daventry and North)—The London Ensemble. Gwen Jackson (soprano).
 5.15 (except Daventry)—The B.B.C. Dance Orchestra.
 5.15 (Daventry)—The Children's Hour.
 6.0—"The First News."
 6.25—Interlude.
 6.30—The Foundations of Music. Haydn String Quartet.
 6.50—German Talk: Herr Max Kroemer.
 7.30—A Violoncello Recital by Audrey Piggott.
 7.45—"Words by..." A programme of favourite songs with words written by Edward Lockton. Sophie Rowlands (soprano). Frank Titterton (tenor). Kenneth Ellis (bass). Compere, Edward Lockton.
 8.30—Whither Britain?—V. Mr. George Bernard Shaw.
 9.0—"The Second News."
 9.20—A Recital. Antonio Brosa (violin). Max Puani (pianoforte).
 10.25—Reading.
 10.30—12.0 (Daventry)—Lew Stone and his Band from the Café Anglais.
 11.0—11.30 (London)—Television.

REGIONAL

For Time Signals, see Monday.
 10.15 a.m. (except Midland)—Service.

10.30—11.20 (except Midland)—Daventry National Programme.
 12 noon—The Scottish Studio Orchestra. Matthew McDickie (tenor).
 1.15 p.m.—The New London Trio.
 2.0 (except Scottish)—Ernest Parsons and his Orchestra.
 2.0 (Scottish)—Gramophone Records.
 2.35 (Scottish)—For the Schools.
 2.40—Elementary French. 3.10—English Literature. 3.30—Sports and Recreations. 3.50—Records.
 3.0 (North till 4.0)—The Torquay Municipal Orchestra. Dorothy Stanton (Soprano).
 4.0 (North)—Evensong from York Minster.
 4.30 (except Midland and North)—Daventry National Programme.
 4.45 (North)—Gramophone Records.
 5.15—The Children's Hour.
 6.0—"The First News."
 6.30 (except Midland)—The Barrow Shipyard Silver Band.
 6.30 (Midland)—Maj. Vernon Brook: "New Things in Engineering."
 6.50 (Midland)—Dance Music. Billy Merrin and his Commanders.
 7.25 (London)—The New Georgian Trio.
 7.25 (North)—"Consider your Plan."
 7.30 (Midland)—The Birmingham Military Band. Frederick Chester (Entertainer).
 7.30 (West)—"The Market Special"—An Interlude for Farmers.
 7.30 (Scottish)—"Scotland To-day and To-morrow."
 7.45 (North)—The Liverpool Philharmonic Orchestra. Conducted by Sir Thomas Beecham.
 8.0 (London and Scottish)—The Gershom Parkington Quintet. Jennie Maude (soprano).
 8.0 (West)—The Studio Orchestra. Mona Hill (contralto). Lois Turner (pianoforte).
 8.30 (Midland)—Records.
 9.15 (London, Midland, West)—The Charlot Hour (New Series).
 9.15 (Scottish)—The Scottish Orchestra. Conductor, John Barbirolli. Arthur Rubinstein (pianoforte).
 10.15—"The Second News."
 10.30—12.0 (Midland till 11)—Lew Stone and his Band.
 11.0—11.30 (Midland)—Television (Baird Process) (Sound).

EMPIRE SUMMARY

For wavelengths, see S.W. List
 Transmission 1 (GSF, GSD)
 G.M.T.
 8.0 a.m.—Big Ben. Empire News.
 8.15—A Miscellaneous Programme.†
 8.45—"Fifty Years of Golf." Mr. J. H. Taylor.
 9.0—Dance Music.†
 9.30—"A Branch of Arbutus." A Song Cycle.* 10.0—Close Down.
 Transmission 2 (GSG, GSE)
 12 noon—Big Ben. Reginald New (Cinema Organ).
 12.30 p.m.—The Commodore Grand Orchestra.
 1.15—A Chamber Concert by the New London Trio. 1.45—Close Down.
 Transmission 3 (2—4 p.m. GSE, GSB; 4—6 p.m. GSB, GSA)
 2.0 p.m.—Big Ben. Empire News.
 2.15—Ernest Parsons and his Orchestra.
 3.0—London Regional.
 4.0—"Fifty Years of Golf."
 4.15—Old English Airs.†
 4.30—The London Ensemble.
 5.15—Empire News (second reading).
 5.30—The B.B.C. Dance Orchestra.
 6.0—Close Down.
 Transmission 4 (6.15—7.45 p.m. GSD, GSB; 7.45—10.45 p.m. GSB, GSA)
 6.15 p.m.—Big Ben. Empire News.
 6.30—The Barrow Shipyard Silver Band. L. T. Whipp (Entertainer).
 7.30—Audrey Piggott (Violoncello).
 7.45—"Words by..." A Programme of favourite songs.
 8.30—"Whither Britain?" Mr. George Bernard Shaw.
 9.0—The Gershom Parkington Quintet. Jennie Maude (Soprano).
 9.15—Charlotte's Hour.
 10.15—Empire News.
 10.30—Lew Stone and his Band.
 10.45—Close Down.
 Transmission 5 (GSC, GSA)
 11.0 p.m.—Big Ben. "A Fool and his Money" by Laurence Housman with music by The Scottish Studio Orchestra.
 12 midnight—"Whither Britain?"*
 12.30 a.m.—Interlude.†
 12.45—Empire News.
 1.0—Close Down.
 * Electrical Recording.
 † Gramophone Records.

PRINCIPAL EVENTS

CONCERTS

2.0 p.m. Kalundborg: Popular orchestral.
 5.0 " Brussels No. 1: Suzanne Daneau, a Belgian composer.
 6.35 " Vienna: Faust symphony (Liszt).
 7.0 " Beromünster: Berne Musical Society.
 7.0 " Oslo: Station Orchestra; Beethoven concerto for pianoforte.
 7.0 " Stockholm: Verdi's Requiem (from Opera House).
 7.0 " Warsaw: Operatic programme.
 7.20 " Bucharest: Symphony concert.
 7.40 " Huizen: Choral Society.
 8.0 " Brussels No. 1: Sacred music by Père Plum.
 8.15 " Heilsberg, etc.: Military band.
 8.15 " Warsaw: Operetta music.
 8.25 " Hilversum: Orchestral, vocal, instrumental.
 8.40 " Vienna: Operetta and Viennese music.
 8.45 " Huizen: Orchestral and instrumental
 9.15 " Oslo: Male voice choir.
 10.15 " Huizen: Operatic programme.

OPERAS

6.30 p.m. Budapest: "The Queen of Sheba" (Goldmark).
 8.30 " French PTT stations: "Marouf" (Rabaud), from the Conservatoire.

CHAMBER MUSIC

3.55 p.m. Warsaw: Wind instrument quintet.

RECITALS

10.40 a.m. Hilversum: Organ and song.
 7.15 p.m. Sottens: Violin.
 9.0 " Stockholm: Song, violoncello and pianoforte.

PLAYS AND TALKS

6.0 p.m. German Stations: Radio sequence based on German folk-songs.
 6.20 " Beromünster: "The Dance throughout the Ages."
 8.0 " Poste Parisien: "Dcalage" (Denys Amiel).
 8.0 " Radio-Paris: "Les Hanneçons" (Brieux).
 8.45 " Turin, etc.: Play (de Musset).
 9.0 " Brussels No. 1: Talk: "The Founder of the Servite Order."

DANCE MUSIC

8.0 p.m. Kalundborg: Radio ball; 9.15, Warsaw; 9.30, Prague: Two pianofortes; 9.35, Leipzig, etc.; 10.50, Hilversum.

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.

BERLIN, 5.15—Gym. 5.30—Motto; Weather. 5.35—Concert. In the Interval: News.
 BEROMÜNSTER, 5.30—Gym.
 BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Records.
 BUDAPEST (No. 1), 5.45—Gym.; Records.
 DEUTSCHLANDSENDER, 5.0—Weather; News. 5.15—Gym. 5.30—Weather; Motto. 5.35—Concert.
 FRANKFURT, 5.0—Choral; Time. 5.5—Gym. 5.55—Time; Announcements.
 HAMBURG, 5.0—Time; Weather; For Farmers. 5.15—Gym. 5.30—Time; Weather. 5.35—Orchestra.
 HEILSBURG, 5.15—Gym. 5.35—The Station Orchestra. Conductor: Wilcken.
 LANGENBERG, 5.0—Record; Motto. 5.5—Concert. 5.40—Gym.
 LEIPZIG, 5.30—Gym; Records.
 MOSCOW (No. 1), 5.15—Announcements. 5.30—Music.
 MUNICH, 5.30—Gym. Choir; Motto; Records.
 PRAGUE (No. 1), 5.15—Gym.; Music; News.
 SOTTENS, 5.55—Gym.
 STUTTGART, 5.0—Choral; Time; Weather. 5.5—Gym. 5.55—Time; Announcements.

6 a.m.

BERLIN, 6.0—Concert (contd. from 5.35).
 BRESLAU, 6.15—News; Time. 6.25—Concert.
 BUDAPEST (No. 1), 6.0—Records.
 DEUTSCHLANDSENDER, 6.0—(approx.)—News. 6.5—Concert.
 FRANKFURT, 6.5—Weather. 6.10—Concert.
 HAMBURG, 6.0—Time; Weather; News. 6.10—Motto. 6.20—Orchestra.
 HEILSBURG, 6.0 (approx.)—News. 6.10 (approx.)—Orchestra.

KALUNDBORG, 6.0—Gym.
 LAHTI, 6.5—Prayers in Swedish. 6.30—Prayers in Finnish.
 LANGENBERG, 6.0—Time; Weather; News. 6.10—Records.
 LEIPZIG, 6.15—News; Time. 6.25—Concert.
 MOSCOW (No. 1), 6.0—Music.
 MUNICH, 6.0—Records. 6.15—Time; Weather; News. 6.25—Concert.
 PARIS (Radio-Paris), 6.45—Gym.
 PRAGUE (No. 1), 6.0—Music.
 ROME, 6.45—Gym.
 SOTTENS, 6.0—6.10—Gym.
 STOCKHOLM, 6.20—Gym. 6.45—Morning Prayers.
 STUTTGART, 6.5—Weather. 6.10—Records.
 TURIN, 6.45—Gym.
 WARSAW, 6.0—Time; Hymn; Gym. 6.20—Records; News. 6.55—For Housewives.

7 a.m.

BARCELONA, 7.15—News; Records.
 BERLIN, 7.0—Gym. 7.15—Records.
 BRESLAU, 7.0—Concert.
 DEUTSCHLANDSENDER, 7.45—Gym. for Women.
 FRANKFURT, 7.0—Concert (contd. from 6.10). 7.15—Tides; Weather. 7.25—Gym.
 HAMBURG, 7.0—Weather; For Housewives. 7.15—Wireless Notes. 7.23—Ice Report.
 HEILSBURG, 7.0—Morning Prayer. 7.30—Gym. for Women.
 HILVERSUM, 7.40—Time; Records.
 HUZEN, 7.40—Records.
 KALUNDBORG, 7.30—Service from the Cathedral.
 LANGENBERG, 7.0—Records. 7.15—Time; Weather; Tides. 7.25—For Women. 7.35—Gym. for Women.
 LEIPZIG; 7.0—Concert (contd. from 6.25).
 MOSCOW (No. 1), 7.15—For Children.
 MUNICH, 7.0—Concert.
 PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News; For Housewives.

PARIS (Radio-Paris), 7.0—Records. 7.15—News. 7.45—Gym.
 RADIO - NORMANDIE, 7.15—Records. 7.30—News.
 ROME, 7.0—Time; News; Market Prices.
 STUTTGART, 7.0—Records. 7.15—Tides; Snow and Winter Sports Report. 7.25—Gym.
 TURIN, 7.0—Time; News.
 WARSAW, 7.0—Announcements.

8 a.m.

BARCELONA, 8.0—Chimes; Gym; Records. 8.20—News; Records.
 BERLIN, 8.0—Records. 8.30—For Women.
 BRESLAU, 8.0—Concert. 8.20—Time; Weather; News. 8.30—For Schools.
 BUDAPEST (No. 1), 8.45—News.
 HILVERSUM, 8.0—Records.
 HUZEN, 8.0—Records.
 KALUNDBORG, 8.0—Service.
 LEIPZIG, 8.0—For Housewives. 8.40—Exchange; Weather; Tides; Announcements.
 LYONS (La Doua), 8.0—News and Weather.
 MADRID (EAJ7), 8.0—News.
 MOSCOW (No. 1), 8.55—Time.
 MUNICH, 8.0—For Women.
 PARIS (Radio-Paris), 8.0—Records.
 PRAGUE (No. 1), 8.50—News. 8.0—Records. 8.15—Theatre Review. 8.30—Reading.
 STUTTGART, 8.0—For Farmers.
 TOULOUSE, 8.0—Dance Refrains. 8.30—News. 8.35—Opera Music. 8.45—Songs.
 VIENNA, 8.20—Market Prices. 8.30—Weather.

9 a.m.

BARCELONA, 9.0—In Memoriam.
 BERLIN, 9.0—Weather; News. 9.10—Market Prices.
 BRATISLAVA, 9.10—News in Hungarian.
 BRESLAU, 8.0—For Schools.
 BUDAPEST (No. 1), 9.0—Topical Talk; Records.
 DEUTSCHLANDSENDER, 9.0—News. 9.10—Radio Play for Schools.

FRANKFURT, 9.0—News. 9.45—For Housewives.
 HAMBURG, 9.0—Records. 9.50—News.
 HEILSBURG, 9.40—News; Weather.
 HILVERSUM, 9.0—Records. 9.40—Time; Service. 9.55—Records.
 HUZEN, 9.40—Records.
 LANGENBERG, 9.0—Time; Weather; News. 9.10—For Schools. 9.30—Three Topical Talks (on Records).
 MOSCOW (No. 1), 9.0—News.
 MUNICH, 9.0—For Women. 9.15—English Dialogue. 9.55—Market Prices.
 PRAGUE (No. 1), 9.5—News in German. 9.10—Record. 9.15—For German Schools. 9.55—Records.
 STUTTGART, 9.0—News. 9.10—For Schools. 9.40—Records.
 VIENNA, 9.50—Tides.

10 a.m.

BERLIN, 10.25—Exchange. 10.30—Station Orchestra. Conductor: Steiner.
 BRATISLAVA, 10.0—Tides.
 BRESLAU, 10.25—For Farmers. 10.40—Time; Weather; Tides. 10.50—News.
 BUDAPEST (No. 1), 10.0—Records. 10.10—Tides.
 DEUTSCHLANDSENDER, 10.0—Radio Play for Schools. 10.15—Weather. 10.30—Book Review. 10.45—Topical Talk.
 FRANKFURT, 10.0—Variety. 10.40—Announcements; Weather; Snow Report.
 HAMBURG, 10.0—For Schools. 10.45—Orchestra.
 HEILSBURG, 10.0—Ice Report. 10.5—For Farmers. 10.30—See Berlin.
 HILVERSUM, Records. 10.10—Talk on Cookery. 10.40—Organ and Soprano Recital by Piet van Egmond and Nora van Rappard.
 HUZEN, 10.0—Records.
 KALUNDBORG, 10.0—Weather. 10.10—Fish Market Prices. 10.15—For Schools.
 LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange; News. 10.59—Time; Weather.
 LANGENBERG, 10.0—Talks. 10.25—Records.

11 a.m.

BARCELONA, 11.0—Chimes; Weather.
 BERLIN, 11.0—Orchestra. 11.5—For Farmers. 11.20—Orchestra.
 BEROMÜNSTER, 11.0—Light Music.
 BRATISLAVA, 11.10—News in Slovak. 11.20—Record.
 BRESLAU, 11.0—Orchestra.
 BUCHAREST, 11.0—Exchange; Tides; Records.
 BUDAPEST (No. 1), 11.0—Chimes. 11.5—Joseph Parádi's Cigány Band.
 DEUTSCHLANDSENDER, 11.0—Weather. 11.10—Records; Weather. 11.55—Time.
 FRANKFURT, 11.0—Records.
 HAMBURG, 11.5—For Housewives. 11.10—Time; Weather; Announcements. 11.20—Orchestra.
 HILVERSUM, 11.0—Organ and Soprano (contd. from 10.40 a.m.). 11.41—The Rentmeister Orchestra.

TUESDAY Feb. 6

11 a.m. (contd.)

HUIZEN, 11.0—Records. 11.10—Religious. 11.40—Police Notes. 11.55—Sextet.
 KALUNDBORG, 11.0—Time and Chimes from the Town Hall. 11.2—The Harald Andersen String Ensemble from the Hotel d'Angleterre.
 LAHTI, 11.0—Weather. 11.15—Shipping.
 LANGENBERG, 11.0—See Munich. 11.45—Announcements.
 LEIPZIG, 11.0—Orchestra.
 LYONS (La Doua), 11.0—Concert.
 MADRID (EAJ7), 11.45—Announcements.
 MONTE CENERI, 11.0—News. 11.10 (approx.). The Station Orchestra. 11.29—Time Signal; Weather. 11.31—Station Orchestra. 11.55—News.
 MUNICH, 11.0—Orchestra, conducted by Kloss.
 OSLO, 11.10—Exchange. 11.55—Time.
 PALERMO, 11.45—News.
 PRAGUE (No. 1), 11.0—Time. 11.1—For Farmers. 11.10—Records. 11.25—News. 11.35—Rudolf Piskacek and his Orchestra.
 RADIO-NORMANDIE, 11.0—Records.
 REYKJAVIK, 11.0—Weather. 11.30—Records.
 SOTTENS, 11.28—Time; News. Records.
 STOCKHOLM, 11.30—Weather; Ice Report. 11.45—Exchange. 11.55—Time.
 STRASBOURG, 11.0—Orchestra. STUTTGART, 11.0—Records.
 TURIN, 11.30—Records. 11.45—News.
 VIENNA, 11.0—The "Wiener Symphoniker," conducted by Holzer. Selection, The Czarevitch (Lehar).
 WARSAW, 11.5—Orchestra. In the Interval: Weather. 11.55—News.

12 noon

ALGIERS, 12.30—The Station Orchestra.
 BARCELONA, 12.0—For Women. 12.30—Letter Box. 12.45—Records.
 BERLIN, 12.0—Records. 12.20—Light Music.
 BEROMÜNSTER, 12.0—Light Music. 12.20—Time; Weather; Exchange. 12.25—For Housewives.
 BRATISLAVA, 12.45—News in German and Hungarian.
 BRESLAU, 12.0—Orchestra. 12.15—News. 12.25—Request Records.
 BRNO, 12.35—Talk.
 BUDAPEST (No. 1), 12.0—Cigány Band. 12.30—The Royal Hungarian Police Orchestra, conducted by Szöllösy.
 BRUSSELS (No. 1), 12.0—Records. 12.45—Song Recital by Germaine Montulet.
 BRUSSELS (No. 2), 12.0—Orchestra
 BUCHAREST, 12.0—News. 12.15—Records.
 DEUTSCHLANDSENDER, 12.45—News.
 FRANKFURT, 12.0—Records. 12.15—Time; News; Weather. 12.35—Orchestra. Conductor: Merten, Lili Trautmann (Soprano).
 HAMBURG, 12.0—Exchange; Weather; Winter Sports Notes. 12.20—Concert.
 HEILSBURG, 12.1—Time; Weather. 12.5—Records. 12.20—News. 12.30—Records.
 HILVERSUM, 12.0—Rentmeester Orchestra (contd. from 11.41 a.m.). 12.25—Records.
 HUIZEN, 12.0—Sextet (contd. from 11.55 a.m.).
 JUAN-LES-PINS (Radio Côte D'Azur), 12.30—Amusement Guide; Announcements.
 KALUNDBORG, 12.0—String Ensemble (contd. from 11.2 a.m.).
 LANGENBERG, 12.0—Records. 12.45—Announcements.
 LEIPZIG, 12.0—Orchestra. 12.15—News; Time. 12.25—Records.
 LYONS (La Doua), 12.0—Concert. 12.45—Concert. In the Interval, News and Exchange.
 MADRID (EAJ7), 12.0—Chimes; News; Exchange; Announcements. 12.15—Time.
 MONTE CENERI, 12.0—News (contd.

from 11.55 a.m.). 12.5—Records. 12.20—Reading. 12.30—Snow Report; Records.
 MUNICH, 12.0—Orchestra (contd. from 11.0 a.m.). 12.15—Time; Weather; News. 12.25—Records.
 OSLO, 12.0—Records. In the Intervals: Weather; Talk for Farmers; Exchange.
 PARIS (Eiffel Tower), 12.30—Concert.
 PARIS (Poste Parisien), 12.0—Exchange. 12.5—Protestant address. 12.40—Records.
 PARIS (Radio-Paris), 12.0—The Pascal Orchestra. Chanson italienne (Volpatti). Selection, "Viktoria and her Hussar" (Abraham). Czardas No. 1 (Michiels). Serenade (Widor). Java (Yvain). La fille aux cheveux de lin (Debussy). College Humour (Johnston). Pianoforte Pieces. Chanson joyeuse (Rimsky-Korsakov). Indian Love Call (Friml). Selection, "Der Geist des Wojewoden" (Grossmann). Violin Solos: Piece (Santangimi). "Comme la Rose" (Lama). Overture, "Titus" (Mozart). "Cello Solo, Réverie (Bourdarot). La Poupponnière (Verdun). Le Baiser d'Eunice from "Quo Vadis" (Nougues). Hungaria No. 3 (Leoni). Ave Maria (Schubert). Nutcrackers (Ranzato). Amoretten-tänze (Gungl).
 PRAGUE (No. 1), 12.0—Time; Orchestra. 12.35—Labour Market. 12.45—Records. 12.55—Exchange; Weather.
 RADIO-NORMANDIE, 12.0—Military Band. 12.30—News. 12.45—Concert.
 ROME, 12.0—See Turin. In the intervals, News; Exchange; Time; Announcements.
 SOTTENS, 12.0—Financial Notes; Records.
 STRASBOURG, 12.0—Orchestra, conducted by Maurice de Villers. 12.45—News.
 STUTTGART, 12.0—Records. 12.15—Time; News; Weather. 12.35—See Frankfurt.
 TOULOUSE, 12.0—Music. 12.15—Opera music. 12.30—News; Exchange. 12.45—Request Music.
 TURIN, 12.0—Time; Announcements. 12.5 (approx.)—Quintet. In the Interval: Records; Exchange
 VIENNA, 12.0—Time; Weather; Announcements. 12.10—The "Wiener Symphoniker"

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.5—Orchestra.
 ATHLONE, 1.30—Time; Weather; Stock Report, Records.
 BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records.
 BERLIN, 1.0—Light Music. 1.15—News; Tides. 1.35—Lincke Records.
 BRESLAU, 1.0—News. 1.10—Time, Weather. 1.15—Post Office Propaganda; Records. 1.50—Market Prices, Exchange.
 BRNO, 1.5—Market Prices.
 BRUSSELS (No. 1), 1.0—News. 1.10—The Station Orchestra, conducted by Leemans.
 BRUSSELS (No. 2), 1.0—News. 1.10—Dance Records.
 BUDAPEST (No. 1), 1.0—Police Band.
 DEUTSCHLANDSENDER, 1.0—Records.
 FRANKFURT, 1.0—Orchestra (contd. from 12.35 p.m.). 1.40—For Women.
 HAMBURG, 1.0—Concert. 1.15—News. 1.35—Records.
 HEILSBURG, 1.0—Records. 1.30—Post Office Propaganda; Records.
 HILVERSUM, 1.0—Records. 1.10—Rentmeester Orchestra. 1.55—Records.
 HUIZEN, 1.0—Sextet (contd. from 11.55 a.m.). 1.40—For Women.
 JUAN-LES-PINS (Radio Côte D'Azur), 1.0—News. 1.15—Concert.
 LANGENBERG, 1.0—Chamber Music. Gertrud Maria Kisselbach (Violin). Grape (Pianoforte), Marga Bäuml and Maria Jerusalem (Guitar).
 LEIPZIG, 1.0—News; Exchange; Weather. 1.15—Book Review. 1.35—Topical Talk. 1.40—Oswin Keller (Pianoforte).
 LYONS (La Doua), 1.0—Concert.
 MUNICH, 1.0—Time; Weather; News; Exchange; Announcements. 1.20—Song, Violin and Pianoforte Recital. 1.50—For Housewives.
 PARIS (Eiffel Tower), 1.0—Exchange. 1.15—News. 1.30—For Farmers. 1.45—Labour Market.

PARIS (Poste Parisien), 1.0—Poetry. 1.15—Records. 1.30—New Records.
 PARIS (Radio-Paris), 1.0—Orchestra (contd. from 12 noon). 1.20—Exchange; News. 1.40—Orchestra (contd.).
 PRAGUE (No. 1), 1.0—Exchange in German.
 PRAGUE (No. 2), 1.30—Record. 1.35—Talk. 1.45—Violin Recital.
 REYKJAVIK, 1.15—Variety.
 ROME, 1.0—See Turin.
 STOCKHOLM, 1.45—For Schools.
 STRASBOURG, 1.0—Time; Exchange. 1.1—Orchestra.
 TOULOUSE, 1.0—Amusement Guide; Market Prices. 1.5—Organ. 1.15—Chansonnettes. 1.30—Viennese Orchestra. 1.45—Operetta Music.
 TURIN, 1.0—Quintet. 1.15—Exchange.
 2 p.m.
 BARCELONA, 2.0—Sextet.
 BERLIN, 2.0—Exchange. 2.35—For Young People.
 BEROMÜNSTER, 2.30—Orchestra. 2.59—Time.
 BRESLAU, 2.10—Talk. 2.30—For Children.
 BRNO, 2.40—Talk.
 DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—For Women. 2.45—Reading (Karl Fischer).
 FRANKFURT, 2.0—For Women (contd. from 1.40 p.m.). 2.30—Weather; Time; Exchange.
 HAMBURG, 2.0—Exchange. 2.40—Shipping and Aviation Notes; Ice Report.
 HEILSBURG, 2.0—Exchange. 2.20—For Women. 2.30—Eurythmics.
 HILVERSUM, 2.0—Records. 2.10—Pianoforte Recital by Johan Wilderbeek. 2.40—Dressmaking.
 HUIZEN, 2.0—For Women. 2.40—Dressmaking Lesson.
 KALUNDBORG, 2.0—Orchestra. Dagny Möller (Songs). Overture and Two Minuets, "Mitridate Ré di Ponto" (Mozart). Ballet Music, "Paris and Helen" (Gluck). Divertimento (von Dittersdorf). Ballet Music, "Rosamunde" (Schubert). Hungarian Dance No. 3 in F (Brahms). Danish Songs. Overture, "Morning, Noon and Night" (Suppe). Waltz, Loreley Rhein-klänge (Joh. Strauss, sen.). French Polka, Klop" an (Müllöcker). Ballet Music, "Cinderella" (Joh. Strauss). Pizzicato Polka (Joh. Strauss). Waltz, Mein Lebenslauf ist Lieb und Lust (Jos. Strauss). Overture, "Cagliostro in Wien" (Joh. Strauss).
 LANGENBERG, 2.0—Talk: The First Season of the German Spas under the new Regime. 2.10—Talk: German Music in Brazil. 2.30—Exchange. 2.40—For Farmers.
 LEIPZIG, 2.0—Piano (contd. from 1.40 p.m.). 2.10—For Young People.
 MADRID (EAJ7), 2.0—Chimes; Times; Weather; Theatre Notes. 2.10 (approx.)—Concert. In the Interval: Talk.
 MOSCOW (No. 1), 2.15—For Children. 2.55—Time.
 MUNICH, 2.0—For Housewives. 2.30 Talk: The History of Skating. 2.50—Weather; For Farmers.
 PARIS (Eiffel Tower), 2.0—Exchange. 2.15—Economic Notes. 2.30—Exchange. 2.45—Theatre and Art Review.
 PARIS (Poste Parisien), 2.0—Exchange.
 PARIS (Radio-Paris), 2.0—Announcements.
 PRAGUE (No. 1), 2.55—Exchange.
 PRAGUE (No. 2), 2.0—Violin Recital (contd. from 1.45 p.m.). 2.10—German Transmission for Farmers; Baritone Songs. 2.45—News in German.
 SOTTENS, 2.28—Time.
 STOCKHOLM, 2.0—For Schools.
 STUTTGART, 2.40—Schubert Songs by Helen Geray-Scheel (Soprano).
 TOULOUSE, 2.0—News; Exchange.
 VIENNA, 2.30—Time; Weather; Exchange. 2.50—Talk: Poultry keeping.
 WARSAW, 2.25—News. 2.30—Economic Notes. 2.40—Jazz Records.
 3 p.m.
 BARCELONA, 3.0—For Invalids.
 BERLIN, 3.0—"The Guilds." The Station Orchestra, conducted by Steiner, The Station Choir, conducted by Weigel. Klewitz (Baritone). Rockstroh (Pianoforte).
 BEROMÜNSTER, 3.0—See Sottens.
 BRESLAU, 3.0—Orchestra.
 BUDAPEST (No. 1), 3.0—Reading.
 DEUTSCHLANDSENDER, 3.0—See Munich.

FRANKFURT, 3.0—See Munich.
 HAMBURG, 3.0—See Berlin.
 HEILSBURG, 3.0—See Berlin.
 HILVERSUM, 3.0—Dressmaking. 3.55—Records.
 HUIZEN, 3.0—Dressmaking. 3.40—Records.
 KALUNDBORG, 3.0—Orchestra (contd. from 2.0).
 KAUNAS, 3.0—Technical Notes. 3.20—Letterbox. 3.40—Quartet.
 LANGENBERG, 3.0—Pianoforte Trio. 3.45—Talk: Carnival Customs in the Rhineland and Westphalia.
 LEIPZIG, 3.0—See Munich.
 MADRID (EAJ7), 3.0—Concert. 3.40—News; Film Review. 3.50—Announcements.
 MONTE CENERI, 3.0—See Sottens.
 MOSCOW (No. 1), 3.0—News; Announcements.
 MUNICH, 3.0—Station Orchestra, conducted by Dr. Meyer. Elizabeth Hallstein (Soprano). Rely Wittek (Contralto). Hartmann (Baritone).
 PARIS (Eiffel Tower), 3.0—News; Aviation Notes. 3.15—Exchange. 3.45—Talk.
 PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
 PARIS (Radio-Paris), 3.45—Exchange.
 PRAGUE (No. 1), 3.0—The Station Orchestra. Conductor, Parik. 3.55—For Children.
 RADIO-NORMANDIE, 3.30—Variety.
 ROME, 3.30—For Girls. 3.55—News, Exchange.
 SOTTENS, 3.0—Orchestra. Conductor: Moser. Slav Dance (Dvořák). Waltz (J. Strauss). Selection, "Norma" (Bellini). Exotic Dance (Mascagni). Arab, Russian and Chinese Dances (Tchaikovsky). Selection, "Das Schwarzwaldmädel" (Jessel). Potpourri (Dostal). Jazz. Country Music.
 STRASBOURG, 3.0—Report from a Culinary Exhibition.
 STUTTGART, 3.0—See Munich.
 TURIN, 3.35—News. 3.45—For Children.
 VIENNA, 3.0—Talk (contd. from 2.50 p.m.). 3.10—For Children. 3.35—Handwork for Children.
 WARSAW, 3.0—Records. 3.25—The Letter Box. 3.40—Polish Lesson. 3.55—The Szule Wind Instruments Quintet. Suite (Lefebvre). Quintet (Onslow).
 4 p.m.
 BARCELONA, 4.0—News.
 BERLIN, 4.0—"The Guilds" (contd. from 3.0).
 BRATISLAVA, 4.15—Review. 4.30—Light Music.
 BRESLAU, 4.0—Orchestra. 4.30—See Munich.
 BRNO, 4.15—Talk. 4.50—Records.
 BUCHAREST, 4.0—The Motoi Orchestra.
 BUDAPEST, 4.0—Orchestra.
 DEUTSCHLANDSENDER, 4.0—For Boys. 4.25—For Young People. 4.40—Humorous Items.
 FRANKFURT, 4.0—See 3.0 Munich. 4.45—Discussion on German Industry.
 HAMBURG, 4.0—See 3.0 Berlin.
 HEILSBURG, 4.0—See 3.0 Berlin.
 HILVERSUM, 4.0—Records. 4.10—A Children's Choir, conducted by Jacob Hamel. 4.40—For Children.
 HUIZEN, 4.0—Records. 4.55—Talk.
 KALUNDBORG, 4.0—For Children. 4.30—Exchange; Fish Market Prices. 4.43—Poem. 4.45—Talk on Music.
 KAUNAS, 4.0—Quartet (contd. from 3.40 p.m.). 4.10—Programme for Wilno. 4.30—Talk: Icebergs. 4.50—Records.
 LAHTI, 4.0—Accordion. 4.25—Talk. 4.50—News in Finnish. 4.59—Time; Weather.
 LANGENBERG, 4.0—Orchestra, conducted by Kühn. Ervin Ortman (Violin).
 LEIPZIG, 4.0—See 3.0 Munich.
 LYONS (La Doua), 4.30—Mme. Casadesus Lauth (Pianoforte) and Jean Witkowski (Cello).
 MONTE CENERI, 4.0—See 3.0 Sottens.
 MOSCOW, 4.30—Communist Party Programme.
 MUNICH, 4.0—Orchestra (contd. from 3.0 p.m.). 4.30—Talk: The German Mind. 4.50—Alfred Wang (Pianoforte). Partita No. 2 (Krieger). Six Fugues on the Magnificat (Pachelbel). Passacaglia (Pachelbel).
 OSLO, 4.0—Orchestra.
 PARIS (Eiffel Tower), 4.0—Talk. 4.15—Exchange.
 PARIS (Poste Parisien), 4.50—Exchange.
 PARIS (Radio-Paris), 4.30—English Lesson.
 PRAGUE (No. 1), 4.15—Sports Talk. 4.25—Records. 4.35—German Lesson. 4.50—Records.
 REYKJAVIK, 4.0—Weather.
 ROME, 4.0—News; Exchange. 4.10—Orchestra. 4.55—Weather.
 SOTTENS, 4.0—Orchestra (contd. from 3.0 p.m.).

STOCKHOLM, 4.0—Weather. 4.5—For Children. 4.30—Practical Hints. 4.45—Records.
 STRASBOURG, 4.45—Talk: Madagascar.
 STUTTGART, 4.30—Records. 4.45—Discussion with a Sleeping-Car Attendant.
 TOULOUSE, 4.15—News; Exchange; Racing.
 TURIN, 4.0—For Children. 4.10—Records: Popular Music. 4.55—Weather.
 VIENNA, 4.5—Science Talk. 4.20—Song Recital by Judith Sander (Soprano), and Alexander Balaban (Baritone).
 WARSAW, 4.50—Talk for Farmers.
 5 p.m.
 BERLIN, 5.30—Wireless Notes. 5.35—Talk; Light Athletics and the Olympic Games. 5.45—Legal Talk.
 BEROMÜNSTER, 5.0—Records: Songs of the High Road. 5.20—Extracts from Newspapers of Thirty Years Ago (Franziskus). 5.30—For Parents.
 BRATISLAVA, 5.0—Telegraphy Lesson. 5.15—Hungarian Transmission.
 BRESLAU, 5.10—Market Prices. 5.15 (approx.)—For Parents. 5.30—For Farmers. 5.45—Programme Notes.
 BRNO, 5.0—Announcements. 5.15—Talk. 5.25—German Transmission: For Young People; For Farmers.
 BRUSSELS (No. 1), 5.0—"Les touristes sur la tombe de St. Eleuthère" (Suzanne Daneau)—Five Episodes for Pianoforte and Orchestra, the Composer at the Pianoforte. 5.30—For Children.
 BRUSSELS (No. 2), 5.0—Orchestra. Nocturne and Scherzo from "A Midsummer Night's Dream" (Mendelssohn). Records: (a) Cavatina from "The Flying Dutchman" (Wagner), (b) Aria from "Lohengrin" (Wagner). Valse Triste (Sibelius). Danse Macabre (Saint-Saëns). Overture, "Gwendoline" (Chabrier). Ballet Music, Kassyia (Delibes). 5.45—For Children.
 BUCHAREST, 5.0—News. 5.15—Orchestra.
 BUDAPEST, 5.0—French Lesson. 5.25—Records.
 DEUTSCHLANDSENDER, 5.0—Humorous Items (continued from 4.40 p.m.). 5.30—Political Press Review.
 FRANKFURT, 5.0—For Young People. 5.25—Italian Lesson. 5.45—Weather; News; Exchange; Announcements; Time.
 HAMBURG, 5.0—Records. 5.45—Exchange; Weather.
 HEILSBURG, 5.0—Book Review. 5.15—Market Prices; Ice Report. 5.25—Talk: Retail Trade. 5.50—Weather.
 HILVERSUM, 5.0—For Children. 5.10—Religious Address. 5.40—Records.
 HUIZEN, 5.0—Talk. 5.10—Military Band. 5.40—Talk: The Catholic Press in Africa. 5.55—Military Band (continued).
 KALUNDBORG, 5.0—Talk. 5.15—German Lesson. 5.45—Weather; Announcements.
 KAUNAS, 5.0—For Farmers. 5.20—Records. 5.40—News.
 LAHTI, 5.0—Weather. 5.10—News in Swedish. 5.15—Talk. 5.40—Hungarian Songs.
 LANGENBERG, 5.0—For Young People. 5.25—Talk. 5.45—Exchange.
 LEIPZIG, 5.0—See Munich. 5.10—Talk: General von Ludendorff. 5.30—Reading. 5.45—Exchange.
 LYONS (La Doua), 5.0—Pianoforte. 5.45—Dance Music.
 MORÁVSKÁ-OSTRAVA, 5.15—Talk on Winter Sports.
 MOSCOW, 5.0—Communist Party Programme. 5.30—For Collective Farm Workers.
 MUNICH, 5.0—Alfred Wang (Pianoforte) (continued from 4.50 p.m.). 5.10—Talk for Young People. 5.30—Records. 5.45—Time; Weather; For Farmers.
 OSLO, 5.0—For Women. 5.45—Accordion Solos by Severin Nythe.
 PARIS (Eiffel Tower), 5.45—News.
 PRAGUE (No. 1), 5.0—Records. 5.15—For Farmers. 5.25—German Transmission: Talk; Modern Educational Problems. 5.45—Talk: Adolph Loos.
 PRAGUE (No. 2), 5.40—Economics Talk. 5.50—For Workers.
 RADIO-NORMANDIE, 5.30—Concert.
 ROME, 5.0—Market Prices; Snow Report. 5.10—Tourist Talk in German. 5.40—Shipping Notes. 5.45—Atmospheric Signals. 5.50—Announcements.
 SOTTENS, 5.0—For Women. 5.30—Talk. 5.55—German Lesson.

TUESDAY Feb: 6

5 p.m. (contd.)

STOCKHOLM, 5.0—Records. 5.45—French Lesson.
STRASBOURG, 5.0—Orchestra, conducted by Roskam.
STUTTGART, 5.0—For Young People. 5.25—See Frankfurt. 5.45—Time; Weather; For Farmers.
TURIN, 5.0—For Farmers; Market Prices. 5.10—Snow Report. 5.15—Royal Geographical Society's Report. 5.50—Dopolavoro Announcements.
VIENNA, 5.0—Songs (continued from 4.20). 5.10—Talk: Artificial Heating. 5.35—French Lesson.
WARSAW, 5.0—Talk: The Action of the Polish Government regarding Silesia. 5.20—The Letter Box. 5.35—Records.

6 p.m.

ALGIERS, 6.0—Records. 6.15—Lottery Results. 6.30—Film Notes. 6.45—Variety Items.
ATHLONE, 6.0—For Children. 6.45—News.
BARCELONA, 6.0—Trio Concert. 6.30—News.
BERLIN, 6.0—See Deutschlandsender.
BEROMÜNSTER, 6.0—Time; Weather; Notes on the Broadcasts for Schools. 6.10—Tourist Report. 6.20—Talk: "The Dance throughout the Ages." 6.50—Introductory Talk to the 7.0 p.m. Transmission.
BRATISLAVA, 6.5—Talk. 6.20—Programme to be announced. 6.35—See Prague.
BRESLAU, 6.0—See Deutschlandsender; Weather; Market Prices.
BRUSSELS (No. 1), 6.0—For Children. 6.5—Literary Review. 6.15—Records. Sonata No. 11 (Handel). Quartet in F (Dvorak). 6.30—"Eine kleine Nachtmusik" (Mozart), by the Station Orchestra, conducted by Leemans. 6.45—Radio Report from Binche Carnival.
BRUSSELS (No. 2), 6.0—For Children. 6.30—Records: Selection: "The Mikado" (Sullivan). Extracts: "The Mastersingers" (Wagner).
BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Talk.
BUDAPEST (No. 1), 6.0—Reading. 6.30—"The Queen of Sheba" —Opera in Four Acts (Goldmark), relayed from the Royal Opera House.
DEUTSCHLANDSENDER, 6.0—Transmission for all German Stations: "Ich träumt' in seinem Schatten"—Scenes based on German Folk Songs.
FRANKFURT, 6.0—See Deutschlandsender.
HAMBURG, 6.0—See Deutschlandsender.
HEILSBURG, 6.0—See Deutschlandsender.
HILVERSUM, 6.0—Records. 6.10—Talk. 6.40—Orchestra, conducted by Albert van Raalte. Henri Barouk (Cello). Overture, "L'isola disabitata" (Haydn). "Cello Concerto in D (Haydn)."
HUIZEN, 6.0—Military Band. 6.20—Esperanto Lesson. 6.40—Police Notes. 6.55—Talk: Finland.
KALUNDBORG, 6.0—News. 6.30—Talk: Marx's "Capital".
KAUNAS, 6.0—Announcements. 6.30—State Opera House Relay. In the intervals: Talk; and Sports Notes.
LAHTI, 6.0—Hungarian Songs. 6.5—Recitations. 6.30—Station Orchestra—Conductor: Haapanen. Kallioniemi (Pianoforte).
LANGENBERG, 6.0—See Deutschlandsender.
LEIPZIG, 6.0—See Deutschlandsender.
LYONS (La Doua), 6.0—Dance Music. 6.15—News from Paris.
MONTE CENERI, 6.15—News; Cinema Organ; Records. 6.45—News.
MOSCOW (No. 1), 6.0—For Collective Farm Workers.
MUNICH, 6.0—See Deutschlandsender.
OSLO, 6.0—Announcements. 6.15—News. 6.30—English Lesson.
PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Theatre Review. 6.45—Topical Programme.
PARIS (Poste Parisien), 6.45—Exchange. 6.52—Talk: The Music Hall.
PARIS (Radio-Paris), 6.20—Weather, For Farmers; Exchange; News. 6.40—German Lesson.
PRAGUE (No. 1), 6.0—Time; News; Record. 6.20—To be announced. 6.35—Accordion Solos by Otto Böhm. 6.50—A Comedy in Three Acts (Sramek).

7 p.m.

ALGIERS, 7.0—Exchange. 7.10—Shipping Notes. 7.15—Weather. 7.20—Variety Items. 7.40—Humorous Items. 7.55—News.
ATHLONE, 7.0—Gaelic Reading. 7.15—Talk: Our Drama To-day. 7.30—Variety. 7.50—Soprano Solos.
BARCELONA, 7.0—Request Records. 7.30—Exchange; Talk in Catalan.
BARI, 7.0—7.10—News in Albanian.
BERLIN, 7.0—News. 7.10—See Deutschlandsender. 7.20—See Heilsberg.
BEROMÜNSTER, 7.0—Symphony Concert by the Berne Musical Society.
BRESLAU, 7.0—News. 7.10—See Deutschlandsender. 7.20—"When the Factory Siren sounds"—Radio Sequence of a Worker's Day (Ernst Johannsen).
BRUSSELS (No. 1), 7.0—Radio Report (contd. from 6.45). 7.15—Weekly Review. 7.30—Talk for Women and Art Notes.
BRUSSELS (No. 2), 7.12—News. 7.15—Talk: Young Socialists. 7.30—For Women.
BUCHAREST, 7.0—Song Recital by Dorothy Humphreys. Der Hirt auf dem Felsen (Schubert). Three Songs (Wolf): (a) Weylas Gesang, (b) Der Gärtner, (c) Auitrag. 7.20—Symphony Concert.
BUDAPEST (No. 1), 7.0—"The Queen of Sheba" (Goldmark) (contd. from 6.30).
DEUTSCHLANDSENDER, 7.0—Moito; Weather; News. 7.10—Talk: Germany's Struggle for Equality among the Nations. 7.20—Humorous Musical Programme.
FRANKFURT, 7.0—Topical Talk. 7.10—See Deutschlandsender. 7.20—See Stuttgart.
HAMBURG, 7.0—Announcements. 7.10—See Deutschlandsender. 7.20—See Heilsberg.
HEILSBURG, 7.0—News; Weather; 7.10—See Deutschlandsender. 7.20—"Amber and Majolica"—Radio Picture of East Prussia's Treasures.
HILVERSUM, 7.0—Orchestra (contd. from 6.40). 7.10—English Lesson. 7.40—Time; News. 7.45—Talk by H. P. Marchant.
HUIZEN, 7.0—Talk (contd. from 6.55). 7.15—Records. 7.25—Talk. 7.40—"The Sursum Corda" Catholic Choir, the Catholic Boys' Choir, Beld (Flute), Brugge and Dina Auping (Pianoforte). Flemish Piece (Wierst). Printemps (Diamant). Holder Lenz ist wiederkommen (Zedner). Concertino for Flute (Chaminade). Daar boven op dat bergsken (Cuypers). Muizenpret (Bruggen). Op de Schaatsenbaan (Diamant). Moedermaagd (Loots). Mente in Holland (Bijl). Tändelei for Flute (Hahöcker). Christus is opgestaan (Diepenbrock). Comt verwordend U hier menschen (arr. Röntgen).
KALUNDBORG, 7.0—Time from the Town Hall. 7.2—"The Hansen Family"—Humorous Sketch (Locher). 7.15—Flute Music of the Eighteenth Century. Lento and

Allegretto from the Sonata No. 3 in B minor for Flute and Harpsichord (den Store). Sonata No. 3 for Flute and Harpsichord (Bach). 7.30—A Visit to a Sanatorium for Rheumatics.
KAUNAS, 7.0—State Opera House Relay (contd. from 6.30).
LAHTI, 7.0—Orchestra (contd. from 6.30). 7.45—News in Finnish.
LANGENBERG, 7.0—News. 7.10—See Deutschlandsender. 7.20—Variety.
LEIPZIG, 7.0—See Deutschlandsender. 7.10—To-day's News. 7.20—See Breslau.
LYONS (La Doua), 7.0—News. 7.30—Records. 7.40—Local News. 7.50—Legal Talk.
MADRID (EAJ7), 7.0—Chimes; Exchange; Announcements. 7.10 (approx.)—Sextet. In the Interval—Talk by Joaquin España Cantos.
MONTE CENERI, 7.0—See Beromünster. In the Interval—Topical Review.
MUNICH, 7.0—News. 7.10—See Deutschlandsender. 7.20—See Breslau.
OSLO, 7.0—Time. 7.1—Station Orchestra, conducted by Kramm. Fritz Hans Rehbold (Pianoforte). Overture, "Titus" (Mozart). Pianoforte Concerto in G (Beethoven). Suite, Le couvent sur l'eau (Casella).
PALERMO, 7.0—Announcements. 7.20—Records. In the Interval—Time; News. 7.45—Records: "Cavalleria rusticana"—Opera in One Act (Mascagni); "I Pagliacci"—Opera in Two Acts (Leoncavallo). In the Intervals—Talk; Announcements.
PARIS (Eiffel Tower), 7.0—Topical Programme. 7.15—Weather. 7.30—Forgotten Nineteenth Century Music.
PARIS (Poste Parisien), 7.0—Records. 7.7—Cinema Review. 7.15—News. 7.30—Concert.
PARIS (Radio-Paris), 7.0—Practical Programme. 7.30—Theatre Notes. 7.50—News.
PRAGUE (No. 1), 7.0—Comedy (contd. from 6.50 p.m.).
RADIO-NORMANDIE, 7.0—Request Programme.
ROME, 7.0—Time; Announcements; Records. 7.30—Government Announcements. 7.45—Fascist Students' Variety Programme: Songs, Pianoforte and Violin solos, recitations.
SOTTENS, 7.0—Guessing Competition. 7.15—Gabriel Bouillon (Violin). Concerto in E (Nardini). Chaconne (Vitali). Sicilienne (Paradis). The Prophet Bird (Schumann). Guitare (Lalo). Allegro (Fiocco). 7.55—The Choral Union, conducted by Lang.
STOCKHOLM, 7.0—Time. 7.1—Requiem (Verdi), conducted by Tullio Voghara, relayed from the Opera House.
STRASBOURG, 7.0—Tenor, Violin and Viola Recital (contd. from 6.30). 7.30—Time; News. 7.45—Records.
STUTTGART, 7.0—News. 7.10—See Deutschlandsender. 7.20—"The Fateful Carnival"—Farce in Three Scenes with Music (Nestroy).
TOULOUSE, 7.0—Violin Recital. 7.15—News; Racing; Exchange; Market Prices. 7.30—Popular Melodies. 7.45—Military Music.
TURIN, 7.0—Records. 7.30—Government Notices. 7.45—Students' Variety programme from Rome. In the Intervals: Talk; Literary Review. After the Operetta: News.
VATICAN CITY, 7.0—Religious Information in Italian.
VIENNA, 7.0—"Faust Symphony" (Liszt) (contd. from 6.35). 7.40—The Music Competition. 7.50—Ghost Stories.
WARSAW, 7.0—Great Thoughts. 7.2—Operatic Programme. Station Orchestra, conducted by Oziminski. Mossakowski (Baritone). Introduction, "William Tell" (Rossini). Intermezzo, "Manon Lescaut" (Puccini). Selection, "Die toten Augen" (d'Albert). Songs: (a) Prologue to "I Pagliacci" (Leoncavallo), (b) Aria, "A Masked Ball" (Verdi), (c) Toreador's Song, "Carmen" (Bizet). Entr'acte from "Carmen" (Bizet).
8 p.m.
ALGIERS, 8.0—Time. 8.2—Chamber Music. 8.35—News. 8.40—Records.
ATHLONE, 8.0—Soprano Solos. 8.5—Station Orchestra. 8.30—Mamie Galloway Rigg (Contralto). 8.40—Station Orchestra.
BARCELONA, 8.0—Records. 8.30—Educational Programme. 8.45—News.
BERLIN, 8.0—See 7.20 p.m. Heilsberg.
BEROMÜNSTER, 8.0—Symphony Concert (contd. from 7.0).
BRATISLAVA, 8.30—Slovak Prisoners



VERDI'S REQUIEM

is to be sung at Stockholm this evening. Our picture shows him conducting a rehearsal of Aida in the seventies of last century

in Hungary—Programme of Literature and Music.
BRESLAU, 8.0—Radio Sequence (contd. from 7.20).
BRUSSELS (No. 1), 8.0—Sacred Music by R. P. Plum, relayed from the Royal Conservatoire. The "Disciples de Grétry" conducted by Jean Quirin. Flor Peeters (Organ). Hymn. Extracts from the Mass, "Pange Lingua." Four Organ Solos: (a) Fantasia, (b) Pièce funèbre, (c) Scherzando, (d) Etude concertante.
BRUSSELS (No. 2), 8.0—Negro Poems.
BUCHAREST, 8.0—Talk for Foreigners. 8.15—Symphony Concert (contd. from 7.20). 8.45—News.
BUDAPEST (No. 1), 8.0—"The Queen of Sheba" (Goldmark) (contd. from 6.30).
DEUTSCHLANDSENDER, 8.0—"Symphonie der Arbeit"—Dramatic Poem (Hans Jürgen Nierentz) with Music by Herbert Windt (on Records). 8.40—The Station Choir.
FRANKFURT, 8.0—See 7.20 Stuttgart. 8.40—See Stuttgart.
HAMBURG, 8.0—See 7.20 Heilsberg. 8.15—See Heilsberg.
HEILSBURG, 8.0—"Amber and Majolica" (contd. from 7.20). 8.15—Military Band. Conductor: Weich.
HILVERSUM, 8.0—Talk (contd. from 7.45 p.m.). 8.10—Hawaiian Music. 8.25—Orchestra, conducted by Albert van Raalte. Yvonne Brothier (Songs) and Henri Barouk (Cello). Overture, "The Secret Marriage" (Cimarosa). Songs: (a) The Butterfly (Campra), (b) Aimant la rose (Rimsky-Korskov), (c) Eclat de rire, (d) Manon Lescaut (Aubert). Cello Solos: (a) Liebesfreud (Kreisler), (b) Zigeuner weisen (Sarasate-Barouk). Hawaiian Music. La boutique fantasque (Rossini-Respighi). Aria, "Lakmé" (Delibes). Extract, The Nursery Suite (Elgar): (a) The Serious Doll, (b) The Sad Doll, (c) The Merry Doll. Waltz Song from "Mirella" (Gounod). Scottish Dance (Williams). Military March (Saint-Saëns).
HUIZEN, 8.0—Choral and Instrumental Concert (contd. from 7.40). 8.40—Press Review. 8.45—Orchestra; conducted by Gerritsen. Zimmermann (Violin). Overture, "Titus" (Mozart). Concerto in A for Violin and Orchestra (Mozart). Romanian Rhapsody No. 2 (Enesco).
JUAN-LES-PINS (Radio Côte D'Azur), 8.0—Amusement Guide, News, Exchange. 8.10—For Farmers. 8.20—English Lesson. 8.40—Concert.
KALUNDBORG, 8.0—Radio Ball for the Younger Generation: Louis Preil's Dance Band. In the interval, News.

KAUNAS, 8.0—State Opera House Relay (contd. from 6.30).
LAHTI, 8.0—News in Swedish.
LANGENBERG, 8.0—Variety.
LYONS (La Doua), 8.0—Social Notes. 8.10—Social Notes. 8.20—Humorous Items. 8.30—See Paris (Eiffel Tower). After the Programme, News.
MORAVSKÁ-OSTRAVA, 8.30—Station Orchestra, conducted by Plichta. Kitzler (French Horn).
MADRID (EAJ7), 8.0—Sextet. 8.15—News.
MONTE CENERI, 8.0—See 7.0 p.m. Beromünster.
MOSCOW (No. 1), 8.55—Chimes.
MUNICH, 8.0—See 7.10 p.m. Deutschlandsender.
OSLO, 8.0—Orchestra (contd. from 7.1). 8.10—Talk. 8.40—Weather. 8.45—News.
PALERMO, 8.0—Operas on Records (contd. from 7.45).
PARIS (Eiffel Tower), 8.0—Talk on Art. 8.15—Political Announcements. 8.30—"Marouf"—Opera in Five Acts (Rabaud).
PARIS (Poste Parisien), 8.0—"Decalage"—Play in Three Acts (Denys Amiel). After the Play: News; Exchange.
PARIS (Radio-Paris), 8.0—"Les Hanneçons"—Play (Brieux). 8.30—News, Weather. 8.45—Play (comedy).
PRAGUE (No. 1), 8.0—Comedy (contd. from 6.50). 8.30—Quartet Concert.
RADIO-NORMANDIE, 8.0—Operetta Music. 8.15—Talk. 8.30—Symphony Concert.
REYKJAVIK, 8.0—Light Music. 8.10—Weather. 8.20—Announcements. 8.25—To be announced. 8.30—Announcements.
ROME, 8.0—Fascist Students' Programme. 8.30—One Act Play.
SOTTENS, 8.0—Choral Union (contd. from 7.55). 8.25—Reading. 8.35—Songs.
STOCKHOLM, 8.0—Requiem (Verdi) (contd. from 7.1). 8.45—Weather, News.
STRASBOURG, 8.0—Press Review in German: Lottery Results, Announcements. 8.30—See Paris (Eiffel Tower).
STUTTGART, 8.0—Farce (contd. from 7.20). 8.40—Viennese Waltzes. The Station Orchestra. Conductor: Drost.
TOULOUSE, 8.0—Orchestra. 8.30—Opera Music. 8.45—Viennese Orchestra.
TURIN, 8.0—Variety (contd. from Rome, 7.40). 8.45—Play (de Mussel).
VIENNA, 8.20—News, Weather, Announcements. 8.40—The "Wiener Symphoniker," conducted by Holzer. March (Mühlhäxler). Overture, "Banditenstreich" (Suppe). Du bist meine Sonne, from "Giuditta" (Lehár). Millocker

TUESDAY Feb. 6

8 p.m. (contd.)

Potpouri (Morena). Violin Solo: Grottesque (Rosner). Waltz (Ertl). Stimmungsbilder (Lange). Auf Wiedersehen, Marie (May). Selection, "Zigeunerprimas" (Kálmán). Overture, "Blumenfest" (Fetras). Song (Morawetz). Waltz (Kozzak). Song (Leopoldi). Potpourri (Reckenwald). Gallop (Neumann). After the Concert, News. WARSAW, 8.0—Reading. 8.15—Station Orchestra, conducted by Nawrot. Mme. Ziminska (Songs). Overture, "The Tango Queen" (Lehár). Songs. Extract, "Das Pensionat" (Suppé). Songs. Waltz, "Der Frauenfresser" (Eysler). Soldatenblut (von Blon).

9 p.m.

ALGIERS, 9.0—Oriental Music. 9.30—News. 9.35—Oriental Music. 9.55—News. ATHLONE, 9.0—Violin Solos. 9.15—Songs and Stories by Fay Sargent. 9.30—Variety. BARCELONA, 9.0—Chimes; Weather; Talk; Exchange. 9.10—Variety. 9.30—Musical Comedy Programme: (a) "La Tempranica"—Musical Comedy in One Act (Jiménez), (b) "La Noche de Reyes"—Musical Comedy in One Act (Serrano). BERLIN, 9.0—Weather; News; Sports Notes. 9.20—Concert. BEROMÜNSTER, 9.0 (approx.)—Weather; News. BRATISLAVA, 9.0—Literature and Music (contd. from 8.30 p.m.). 9.15—News in Hungarian. BRESLAU, 9.0—News. 9.15—Time; Weather; Sports Notes. 9.25—Wireless Technical Talk. 9.35—Dance Music. BRUSSELS (No. 1), 9.0—Talk: The Founder of the Servite Order. 9.15—Sacred Music (contd. from 8.0 p.m.). Eucharistic Symphony for Organ. Stabat Mater. Te Deum. BRUSSELS (No. 2), 9.0—Negro Poems. BUDAPEST (No. 1), 9.0—"The Queen of Sheba" (Goldmark) (contd. from 6.30 p.m.).

DEUTSCHLANDSENDER, 9.0—Weather; News; Sports Notes. 9.45—Weather. FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.35—News; Weather; Sports Notes. 9.45—Variety. HAMBURG, 9.0—News. 9.20—Talk (on Records): Germany's Struggle for equality among the Nations. 9.30—Musical Programme. HEILSBURG, 9.0—Military Band (contd. from 8.15 p.m.). 9.30—News; Weather; Sports Notes. HILVERSUM, 9.0—Orchestra (contd. from 8.25 p.m.). HUIZEN, 9.0—Orchestra (contd. from 8.45 p.m.). 9.30—Talk. 9.40—Orchestral Suite, No. 2, "L'Arlesienne" (Bizet). 9.55—Violin Recital by Zimmermann.

JUAN-LES-PINS (Radio Côte D'Azur), 9.0—News; Weather. 9.15—Concert. KALUNDBORG, 9.0—Louis Preil's Dance Band. KAUNAS, 9.0—State Opera House Relay (contd. from 6.30 p.m.). LANGENBERG, 9.0—Time; News. 9.20—Address by the Station Manager. 9.25—See Leipzig. LEIPZIG, 9.0—News; Time. 9.15—Sports Notes. 9.35—Dance Music. LYONS (La Doua), 9.0—See 8.30 p.m. Eiffel Tower. MADRID (EAJ7), 9.30—Chimes; Time; News. 9.45 (approx.)—Records: "Tannhäuser"—Opera (Wagner). MORAVSKÁ-OSTRAVA, 9.15—Records. MUNICH, 9.0—Time; Weather; News; Exchange; Sports Notes. 9.25—See Leipzig. MOSCOW (No. 1), 9.0—Chimes. 9.5—International Broadcast. OSLO, 9.0—Topical Talk. 9.15—Male Voice Choir. PALERMO, 9.0—Operatic Programme on Records (contd. from 7.45 p.m.). PARIS (Eiffel Tower), 9.0—"Marouf"—Opera (contd. from 8.30 p.m.). PARIS (Poste Parisien), 9.0—"Décalage"—Play (Amiel) (contd. from 8.0 p.m.). PARIS (Radio-Paris), 9.0—"Les Hanneçons"—Play (Brioux) (contd. from 8.0 p.m.). 9.30—News; Review by Pierre-Seize.

PRAGUE (No. 1), 9.0—Time; News. 9.15—News in English. 9.30—Dance Songs on Two Pianofortes. RADIO - NORMANDIE, 9.0—Concert. REYKJAVIK, 9.0—Chimes; News. 9.30—Reading. ROME, 9.0—Play (contd. from 8.30 p.m.). 9.15—Variety Music and Opera Music. SOTTENS, 9.0—News. STOCKHOLM, 9.0—Recital. Anna Hagelstam (Songs), Dukstulsky ("Cello), and Witkowsky (Pianoforte). Four Songs (Sibelius). "Cello Solos: (a) Romance in F (Sibelius), (b) Elegy (Melartini), (c) Valse lente (Melartini). Four Songs (Kilpinen). Sonata for "Cello and Pianoforte (Valentini). Italian Folk Songs (arr. Sadero and Respighi). STRASBOURG, 9.0—See 8.30 Paris (Eiffel Tower). STUTTGART, 9.0—Time; News. 9.15—Things you should know. 9.25—News; Weather; Sports Notes. 9.45—Records. TOULOUSE, 9.0—Music Hall. 9.30—Arias. 9.45—Sound Film Music. TURIN, 9.0—Play (de Musset) (contd. from 8.45). WARSAW, 9.0—Records. 9.15—Dance Music.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Irish Music. BARCELONA, 10.0—Musical Comedy Programme (contd. from 9.30 p.m.). BERLIN, 10.0—See Heilsberg. BRESLAU, 10.0—Dance Music. BRUSSELS (No. 1), 10.0—News. 10.10—Request Records. 10.55—Christus Vincit. BRUSSELS (No. 2), 10.0—News. 10.10—Records. BUDAPEST (No. 1), 10.0—(approx.)—Karolyi Buras' Cigány Band. DEUTSCHLANDSENDER, 10.0—See Leipzig. FRANKFURT, 10.0—See Leipzig. HAMBURG, 10.0—See Heilsberg. HEILSBURG, 10.0—The Station Orchestra.

11 p.m.

BARCELONA, 11.0—Musical Comedy Programme (contd. from 9.30 p.m.).

BRESLAU, 11.0—Dance Music. DEUTSCHLANDSENDER, 11.0—See Leipzig. FRANKFURT, 11.0—Talk on German Art; Music. HILVERSUM, 11.0—Dance Music. HUIZEN, 11.0—Records. KALUNDBORG, 11.0—Time; Chimes from the Town Hall. 11.5—The National Scala Dance Band. LANGENBERG, 11.0—See Leipzig. LEIPZIG, 11.0—Dance Music. MADRID (EAJ7), 11.0—"Tannhäuser," on Records (contd. from 9.45 p.m.). 11.45—News. MADRID (EAQ), 11.0—Popular Music. 11.45—Light Music. MUNICH, 11.0—See Leipzig. PITTSBURGH, 11.0—News; Pat Haley. 11.15—Sports and Programme Review. 11.30—Popular Programme. 11.45—Lowell Thomas, from New York. RADIO - NORMANDIE, 11.0—Variety. REYKJAVIK, 11.0—Dance Records. STUTTGART, 11.0—See Frankfurt. TOULOUSE, 11.0—Opera Music. Arias. 11.15—Dance Music.

12 midnight

BARCELONA, 12.0—News. KALUNDBORG, 12.0—Dance Music from Nimb's Restaurant. MADRID (EAJ7), 12.0—Chimes. MADRID (EAQ), 12.0—Variety. PITTSBURGH, 12.0—Amos n' Andy, from New York. 12.15 a.m. (Wednesday)—Pittsburgh Varieties. 12.45—True Stories of the Sea. RADIO-NORMANDIE, 12.0—News in English. 12.15 a.m. (Wednesday)—Light Music. SCHENECTADY, 12.45—Stock Reports. TOULOUSE, 12.0—News; Weather; Announcements. 12.5 a.m. (Wednesday)—Chansonnettes. 12.15—Light Music.

1 a.m. (Wednesday)

RADIO-NORMANDIE, 1.0—News 1.15—Dance Music.

2 a.m.

RADIO-NORMANDIE, 2.0—Dance Music.

WEDNESDAY (February 7)

NATIONAL

For Time Signals, see Monday 10.15 a.m. (Daventry)—Service. 10.30 (Daventry)—Weather Forecast. 10.45—11.0—"Life as I see it." The Marchioness of Reading. 11.40—11.55—For the Schools. French Dialogue—II. Mons. E. Stéphan and Mdlle. Vière. 12 noon—Organ (Quentin Maclean). 12.45 p.m.—The Western Studio Orchestra. Emlyn Burns (tenor). 2.0 (except Scottish)—For the Schools: Reception Test. 2.5—British History—IV. 2.30—Biology—IV. 2.5—3.0 (Scottish)—See Scottish Regional. 3.0—Pianoforte Interlude. 3.15 (Daventry)—The Bournemouth Municipal Orchestra. Lloyd Powell (pianoforte). 4.45—Gramophone Records. Variety. 5.15 (except Daventry)—The B.B.C. Dance Orchestra. 5.15 (Daventry)—The Children's Hour. 6.0—"The First News." 6.30—The Foundations of Music. Haydn String Quartets. 6.50—"The Theatre." Mr. James Agate. 7.5—7.25—For Farmers Only. Mr. John Morgan and Dr. F. C. Minnett, M.R.C.V.S. 7.30—Some British Institutions—5. The Churches in National Life. The Rev. F. E. Hutchinson. 8.0—Introductory Talk to the Symphony Concert. Mr. Scott Goddard. 8.15—B.B.C. Symphony Concert. Frederic Lamond (Pianoforte). The B.B.C. Symphony Orchestra. Conductor: Adrian Boult. Orchestra: Overture, Così fan tutte (Mozart). Frederic Lamond and Orchestra: Concerto No. 3, in C minor, Op. 37 (Beethoven). 9.5—"The Second News." 9.20—Symphony Concert. Orchestra: Symphony No. 9, in D (Mahler). 10.35—The Weather House. Mr. R. A. Watson. Watt: "The Electricity Supply." 10.50—Reading. 10.55—12.0 (Daventry)—Roy Fox and

his Band from the Kit-Cat Restaurant. 11.0—11.30 (London)—Television.

REGIONAL

For Time Signals, see Monday 10.15 a.m. (except Midland)—Service. 10.30—11.0 (except Midland)—Daventry National. 12 noon—The Northern Studio Orchestra. Olive Turner (Soprano). 1.0 p.m.—Records. 1.30—An Organ Recital. 2.0 (except Scottish)—The Trocadero Cinema Orchestra. 2.5 (Scottish)—For the Schools. 2.10—Scottish History. 2.35—Science. 3.0—5.15 (London, West, North)—Scottish—Daventry National. 5.15—"The Children's Hour." 6.0—"The First News." 6.30 (London)—Troise and his Banjoliers. 6.30 (Midland)—Records. 6.30 (North and West)—The Northern Studio Orchestra. Alfred Hemingway (Violoncello). 6.30 (Scottish)—Gaelic Lessons—3. 6.50 (Scottish)—The Studio Orchestra. Alan Montgomery (Tenor). Florence Macbride (Violin). 7.0 (Midland and London)—The Midland Studio Orchestra. Miranda Sugden (Soprano). 8.0—Song Writers on Parade. 8.15 (Scottish till 8.45)—Variety. 8.45—9.45 (Scottish)—Part Relay of "The Creation" (Haydn) from The Caird Hall, Dundee. 9.0 (London and North)—The Wireless Military Band. William Parsons (Baritone). 9.0 (Midland)—Jan Berenska and his Orchestra. 9.0 (West)—Speeches from the Cardiff and District Pembrokehire Society. 9.45 (Scottish)—Recital on two Pftes. 9.55 (Midland)—Talk: "The Food Revolution." 9.55 (North)—Talk: "The Industrious Exit." 4. 10.15—"The Second News." 10.30—12.0 (Midland till 11.0)—Roy Fox and his Band. 11.0—11.30 (Midland)—Television (Baird Process) (Sound).

EMPIRE SUMMARY

For Wavelengths, see S.W. List

Transmission 1 (GSF, GSD)

G.M.T. 8.0 a.m.—Big Ben. Empire News. 8.15—The B.B.C. Theatre Orchestra.* 9.15—Old Irish Airs.† 9.30—"Whither Britain?"* Mr. George Bernard Shaw. 10.0—Close Down.

Transmission 2 (GSG, GSE)

12 noon—Big Ben. Quentin Maclean (Cinema Organ). 12.45 p.m.—The Western Studio Orchestra. Emlyn Burns (Tenor). 1.45—Close Down. Transmission 3 (2—4 p.m. GSG, GSB; 4—6 p.m. GSB, GSA) 2.0 p.m.—Big Ben. Empire News. 2.15—The Trocadero Cinema Orchestra. 3.0—Interlude. Ernest Lush (Pfte.). 3.15—Medvedeff's Balalaika Orchestra,* with Olga Alexeeva (Soprano). 3.45—The Bournemouth Municipal Orchestra. Lloyd Powell (Pfte.). 4.45—"Whither Britain?"* Mr. George Bernard Shaw. 5.15—Empire News (second reading). 5.30—The B.B.C. Dance Orchestra. 6.0—Close Down.

Transmission 4 (6.15—7.45 p.m. GSD, GSB; 7.45—10.45 p.m. GSB, GSA)

6.15 p.m.—Big Ben. Empire News. 6.30—Troise and his Banjoliers. 7.0—The Midland Studio Orchestra—Miranda Sugden (Soprano). 8.0—Variety.† 8.15—B.B.C. Symphony Concert. The B.B.C. Symphony Orchestra. Frederic Lamond (Pianoforte). 9.5—The Wireless Military Band. William Parsons (Baritone). 10.15—Empire News. 10.30—Roy Fox and his Band. 10.45—Close Down.

Transmission 5 (GSC, GSA)

11.0 p.m.—Big Ben. Roy Fox and his Band. 11.30—Organ Recital. C. H. Trevor. 12 midnight—Interlude.† 12.15 a.m.—Song Cycle.* "A Branch of Arbutus." 12.45—Empire News. 1.0—Close Down.

* Electrical Recording. † Gramophone Records.

PRINCIPAL EVENTS

CONCERTS

5.10 p.m. Hilversum: Orchestra, Conductor, de Groot. 6.50 " Beromünster: Orchestral—The Strauss Dynasty. 7.0 " Sottens: "Old Russia"—Legends and Music. 7.0 " Stockholm: Orchestral, Stenhammar programme. 7.15 " Langenberg: Symphony No. 6 (Schubert). 7.30 " Deutschlandsender: Wagner Concert. 8.0 " Brussels No. 1 and many European Stations: The Symphony Orchestra—programme of Belgian Music: Conductor, Désiré Defauw. 8.0 " Oslo: Norwegian Music. 8.10 " Leipzig, etc.; Military Band. 8.30 " Strasbourg: Schumann, Brahms, Strauss. 8.45 " Radio-Paris: Colonne Concert. 9.0 " Warsaw: Mickiewicz programme. 9.25 " Kalundborg: Light English music.

OPERAS AND OPERETTAS

6.35 p.m. Brno: "The Tsar's Bride" (Rimsky-Korsakov). 7.40 " Turin, etc.: "The Country of the Bells" (Ranzato). 7.50 " Rome, etc.: Relay from San Carlo, Naples. 8.0 " Poste Parisien: "The Count of Luxembourg" (Lehár). 9.15 " Oslo: "The Magic Flute" (Mozart) (concert).

CHAMBER MUSIC

4.5 p.m. Vienna: Hans Ewald Heller programme. 7.30 " Monte Ceneri: Trios (Schubert, Mozart). 8.15 " Eiffel Tower: Trios (Haydn, etc.).

RECITALS

3.20 p.m. Beromünster: Old and New Polish Folk-Songs. 6.15 " Brussels No. 1: Sixteenth Century choral music. 7.0 " Bucharest: Violin and Arias (7.30). 7.0 " Oslo: Pianoforte. 9.40 " Hilversum: Song and Organ.

PLAY AND TALK

7.25 p.m. Kalundborg: "Correggio" (Oehlschläger). 8.0 " Radio-Paris: Literary Talk: "Claude Farrère."

DANCE MUSIC

5.0 p.m. Brussels No. 1 and No. 2; 9.0, Stockholm; 10.5; Warsaw; 10.10, Brussels No. 1 and No. 2; 10.15, Budapest; Vienna.

MISCELLANEOUS

6.0 p.m. Munich and German Stations: Ski-Championships of S.A. and Reichswehr.

WEDNESDAY Feb. 7

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.

BERLIN, 5.15—Gym. 5.30—Today's Motto; Weather. 5.35—Military Band.
BEROMÜNSTER, 5.30—Gym.
BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Hymn; Motto; Records.
BUDAPEST (No. 1), 5.45—Gym; Records.
DEUTSCHLANDSENDER, 5.0—Weather; News; Gym. 5.30—Weather; Farmers; Motto. 5.35—Concert: In an Interval: News.
FRANKFURT, 5.0—Choral; Time. 5.5—Gym. 5.55—Time; News.
HAMBURG, 5.0—Time; Announcements. 5.15—Gym. 5.30—Time; Weather. 5.35—Military Band. In the Intervals: Time; News; Motto.
HEILSBURG, 5.15—Gym. 5.35—Military Band.
LANGENBERG, 5.0—Record; Today's Motto. 5.5—Concert. 5.40—Gym.
LEIPZIG, 5.30—Gym; Records.
MOSCOW (No. 1), 5.15—Announcements. 5.30—Music.
MUNICH, 5.30—Gym. 5.45—Hymn; Motto; Records.
PRAGUE (No. 1), 5.15—Gym; Music; News.
SOTTENS, 5.55—Gym.
STUTTART, 5.0—Choral; Time; Weather. 5.5—Gym. 5.55—Time; Announcements.

6 a.m.

BERLIN, 6.0—News. 6.15—Military Band.
BRESLAU, 6.15—News. 6.25—Orchestra.
BUDAPEST (No. 1), 6.0—Records.
DEUTSCHLANDSENDER, 6.0—Concert.
FRANKFURT, 6.5—Weather. 6.10—Records.
HAMBURG, 6.0—Military Band.
HEILSBURG, 6.0—News. 6.15 (approx.)—Military Band.
KALUNDBORG, 6.0—Gym.
LAHTI, 6.5—Service in Swedish. 6.30—Service in Finnish.
LANGENBERG, 6.0—Time; News. 6.10—Records.
LEIPZIG, 6.0—Records. 6.15—News; Time. 6.25—Orchestra.
MOSCOW (No. 1), 6.0—Music.
MUNICH, 6.0—Records. 6.15—Time; Weather; News. 6.25—Concert.
PARIS (Radio-Paris), 6.45—Gym.
ROME, 6.45—Gym.
SOTTENS, 6.0-6.10—Gym.
STOCKHOLM, 6.20—Gym. 6.45—Morning Prayers.
STUTTART, 6.5—Weather. 6.10—Records.
TURIN, 6.45—Gym.
WARSAW, 6.0—Time; Hymn. 6.5—Gym. 6.20—Records; News. 6.55—For Housewives.

7 a.m.

BARCELONA, 7.15—News; Records.
BERLIN, 7.0—Gym. 7.15—Physical Culture.
BRESLAU, 7.0—Orchestra.
DEUTSCHLANDSENDER, 7.45—Gym. For Women.
FRANKFURT, 7.0—Records. 7.15—Announcements. 7.25-7.45—Gym.
HAMBURG, 7.0—Weather; For Women. 7.15—Wireless Notes. 7.25—Ice Report.
HEILSBURG, 7.0—Morning Prayer. 7.30—Gym. For Women.
HILVERSUM, 7.40—Records.
HUIZEN, 7.4—Bible Reading. 7.55—Records.
KALUNDBORG, 7.30—Service from the Cathedral.
LANGENBERG, 7.0—Records. 7.15—Time; Announcements. 7.25—For Women. 7.35—Gym for Women.
LEIPZIG, 7.0—Orchestra.
MOSCOW (No. 1), 7.15—For Children.
MUNICH, 7.0—Concert.
PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News; For Housewives.
PARIS (Radio-Paris), 7.0—Records. 7.15—News. 7.45—Gym.

8 a.m.

BARCELONA, 8.0—Chimes; Gym; Records. 8.20—News; Records.
BERLIN, 8.0—Songs to the Lute.
BRESLAU, 8.0—Gym for Women. 8.20—Time; Announcements.
BUDAPEST (No. 1), 8.45—News.
DEUTSCHLANDSENDER, 8.0—Songs to the Lute. 8.40—Gym for Children.
HEILSBURG, 8.5—Talk: The Tailors' Guild.
HILVERSUM, 8.0—Records.
HUIZEN, 8.0—Records.
KALUNDBORG, 8.0—Service.
LEIPZIG, 8.0—Gym for Women. 8.45—Announcements.
LYONS (La Doua), 8.0—News and Weather.
MADRID (EAJ7), 8.0—News.
MOSCOW (No. 1), 8.55—Time.
MUNICH, 8.0—Gym.
PARIS (Radio-Paris), 8.0—Records.
PRAGUE (No. 1), 8.50—News.
RADIO-NORMANDIE, 8.0—Records. 8.15—Review. 8.30—Reading.
STUTTART, 8.45—For Women.
TOULOUSE, 8.0—Dance Music. 8.30—News. 8.35—Opéra-Comique Songs. 8.45—Popular Music.
VIENNA, 8.20—Market Prices. 8.30—Weather.

9 a.m.

BARCELONA, 9.0—In Memoriam.
BERLIN, 9.0—News. 9.10—Exchange. 9.30—Records; Announcements.
BRATISLAVA, 9.10—News in Hungarian.
BRESLAU, 9.10—Boxing Lesson.
BUDAPEST (No. 1), 9.0—Topical Talk; Records.
DEUTSCHLANDSENDER, 9.0—News. 9.10—Baritone and Flute, Harpsichord and Pianoforte Solos.
FRANKFURT, 9.0—News. 9.10—Radio Report: German Gliders. 9.45—For Housewives.
HAMBURG, 9.0—Announcements; Records. 9.50—News.
HEILSBURG, 9.40—News. 9.55—Weather.
HILVERSUM, 9.0—Records. 9.10—Cookery Talk. 9.40—Religious Programme. 9.55—Orchestra conducted by de Groot. Rijken (Recitations).
HUIZEN, 9.0—Records.
LANGENBERG, 9.0—Time; News. 9.10—Talks with Records.
LEIPZIG, 9.10—For Schools: "Mark graf Cero" — Radio Sequence (Fietsch).
MOSCOW (No. 1), 9.0—News.
MUNICH, 9.10—"Gliding"—Radio Report. 9.55—Market Prices; For Farmers; Weather; News.
PRAGUE (No. 1), 9.0—News. 9.5—News in German. 9.10—9.15—Record.
SOTTENS, 9.0—For Schools.
STUTTART, 9.0—News. 9.10—For Women. 9.40—Songs (Pezold) by Eva Fein (Contralto).
VIENNA, 9.20—Readings from Daudet in French. 9.50—Tides.

10 a.m.

BERLIN, 10.25—Exchange. 10.30—Orchestra.
BRATISLAVA, 10.0—Tides.
BRESLAU, 10.20—For Farmers. 10.40—Time; Announcements. 10.50—News.
BUDAPEST (No. 1), 10.0—Records. 10.10—Tides.
DEUTSCHLANDSENDER, 10.0—Topical Programme. 10.15—Weather. 10.30—Household Hints. 10.50—Topical Programme.
FRANKFURT, 10.0—Concert. 10.40—Announcements.
HAMBURG, 10.0—Talk in English: A Day at an English Seaside Resort. 10.30—See Berlin.
HEILSBURG, 10.0—Ice Report. 10.5—Talk: Fish. 10.30—Orchestra.
HILVERSUM, 10.0—Orchestra (contd. from 9.55).
HUIZEN, 10.10—Service. 10.40—Cello.
KALUNDBORG, 10.0—Weather. 10.10—Fish Market Prices. 10.45—For Schools.
LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange. 10.45—News. 10.59—Time; Weather.

LANGENBERG, 10.0—Wagner Festival Programme for Schools. 10.40—Sponsored Programme; Records.
LEIPZIG, 10.0—Post Office Propaganda; Records. 10.40—Weather Snow Report. 10.50—News; Time.
LYONS (La Doua), 10.30—Concert conducted by Jean Waersegers.
MORAVSKÁ-OSTRAVA, 10.0—Record. 10.5—Station Orchestra conducted by Musil.
MOSCOW (No. 1), 10.15—Literary Programme.
MUNICH, 10.30—Post Office Propaganda; Records.
OSLO, 10.15—Service.
PRAGUE (No. 1), 10.0—See Moravská-Ostrava. 10.55—For Farmers.
RADIO-NORMANDIE, 10.0—Variety.
STRASBOURG, 10.30—Orchestra.
STUTTART, 10.0—Pianoforte Sonata in E minor (Schubert) by Ida Reichardt. 10.25—Post Office Propaganda; Concert. 10.55—Weather.
TURIN, 10.15—Light Music.
VATICAN CITY, 10.0—Religious Information in Spanish.
VIENNA, 10.30—For Women. 10.55—Weather.
WARSAW, 10.40—Press Review. 10.50—Theatre Guide. 10.57—Fanfare from St. Mary's Church, Cracow.

11 a.m.

BARCELONA, 11.0—Chimes; Weather.
BERLIN, 11.0—Orchestra; For Farmers. 11.30—Orchestra.
BEROMÜNSTER, 11.0—Records. 11.29—Time; Weather; News. 11.40—Concert.
BRATISLAVA, 11.0—Agricultural Report. 11.10—Local News in Slovak. 11.20—Records. 11.35—Orchestra.
BRESLAU, 11.0—See Leipzig. 11.35—Orchestra.
BUDAPEST (No. 1), 11.10—Chimes. 11.5—The Béla Endre Quartet.
BUCHAREST, 11.0—Exchange; Tides; Records.
BUDAPEST, 11.0—Exchange; Tides; Records.
DEUTSCHLANDSENDER, 11.0—Weather; Greetings. 11.10—Records; Weather. 11.55—Time.
FRANKFURT, 11.0—Orchestra.
HAMBURG, 11.0—See 10.30 Berlin. In the Intervals: For Women; Time; Announcements.
HEILSBURG, 11.0—Orchestra.
HILVERSUM, 11.40—Light Music.
HUIZEN, 11.0—Cello (contd. from 10.40). 11.40—Police Notes. 11.55—Records.
KALUNDBORG, 11.0—Time and Chimes from the Town Hall. 11.2—The Bendix String Ensemble from the Wivex Restaurant. 11.15—For Schools. 11.45—String Ensemble Concert (contd.).
LAHTI, 11.15—Shipping.
LANGENBERG, 11.0—See Leipzig. 11.45—News.
LEIPZIG, 11.0—Dresden Philharmonic Orchestra. Hans Richter-Haaser (Pianoforte). Overture, "Ilka" (Doppler). Ballet Suite (Siede). Waltz (de Micheli). Albumblatt (Gade). Meditation (Glazunov). Minuet (Grieg). Romantic Suite (Bullerian). Waltz (Lchár). Slav Dances (Dvořák). Polka (Strauss). Polka (J. Strauss).
LYONS (La Doua), 11.0—Concert.
MADRID (EA17), 11.45—Announcements.
MONTE CENERI, 11.0—News; Records. 11.29—Time Signal. Weather. 11.31—The Station Orchestra. 11.55—News.
MORAVSKÁ-OSTRAVA, 11.0—For Farmers.
MUNICH, 11.0—See Leipzig.
OSLO, 11.10—Exchange. 11.55—Nauen Time Signal.
PALERMO, 11.45—News.
PRAGUE (No. 1), 11.0—Time. 11.1—For Farmers. 11.10—Records. 11.25—News. 11.35—See Bratislava.
RADIO-NORMANDIE, 11.0—Records.
REYKJAVIK, 11.0—Weather.
ROME, 11.30—Records.
SOTTENS, 11.28—Time; Records.
STOCKHOLM, 11.30—Weather; Ice Report. 11.45—Exchange. 11.55—Time.
STUTTART, 11.0—See Leipzig.



A programme of Belgian Music (conductor, Désiré Defauw) from Brussels No. 1 is to be relayed by many European Stations

TURIN, 11.0—Light Music. 11.30—Records. 11.45—News.
VIENNA, 11.0—The Wiener Symphoniker. Conductor: Holzer. Karl Rosner (Violin).
WARSAW, 11.5—Gaubert and Ravel Records. 11.30—Weather. 11.33—Records. 11.55—News.

12 noon

ALGIERS, 12.30—Records.
BARCELONA, 12.0—For Women. 12.30—Letter Box. 12.45—Records.
BERLIN, 12.0—Records: Mazinga (Liszt). 12.20—Light Music.
BEROMÜNSTER, 12.0—Concert. 12.25—Time; Weather; Exchange.
BRATISLAVA, 12.0—Orchestra (contd. from 11.35). 12.45—News in German and Hungarian.
BRESLAU, 12.0—See 11.0 Leipzig.
BRUSSELS (No. 1), 12.0—The Station Orchestra, conducted by Franz André, Mme. Farrère (Soprano); Selection, "Au temps des Fiacres"; Selection, Suite, "Hiawatha" (Coleridge-Taylor). Harlem Torch (Deloof Candrix). Chant hindou (Rimsky-Korsakov). Foxtrot Intermezzo (Chwat). Waltz Pour vous inviter, Madame (Himmel). Air from Lakmé (Delibes). I must confess (Glen Powell) Selection, "Hansel and Gretel" (Humperdinck).
BRUSSELS (No. 2), 12.0—Max Alexys Orchestra relayed from the Ancienne Belgique.
BUCHAREST, 12.0—News. 12.15—Records.
BUDAPEST (No. 1), 12.0—The Béla Endre Quartet. 12.30—The Weidinger Orchestra.
DEUTSCHLANDSENDER, 12.45—News.
FRANKFURT, 12.0—Concert (contd. from 11.0). 12.15—Time; News. 12.25—Announcements. 12.35—Records.
HAMBURG, 12.0—Exchange. 12.10—Weather. 12.20—Musical Programme.
HEILSBURG, 12.1—Time; Weather. 12.5—Records. 12.20—News. 12.30—Records.
HILVERSUM, 12.0—Light Music (contd. from 11.40).
HUIZEN, 12.0—Records. 12.10—The Van der Horst Ensemble. Overture, "Semiramide" (Rossini). Waltz (Heinecke). Selection, "La Bohème" (Leoncavallo). Hearts and Flowers (Czibulka) El Turia (Granados). Records. Overture, "Banditenstreiche" (Suppé). Song (Meyer-Helmund). Soljahka

(Wilke). Selection, "Carmen" (Bizet).
JUAN-LES-PINS (Radio Côte D'Azur), 12.30—Amusement Guide; Announcements.
KALUNDBORG, 12.0—String Ensemble (contd. from 11.45).
LANGENBERG, 12.0—Orchestra: Waltz, Am Wörther See (Koschak). Overture, "The Gipsy Baron" (Strauss). Lehariana (Geiger). Zigeunerweisen (Krüger). Selection, "Der Walzerkrieg" (Grote). 12.45—News.
LEIPZIG, 12.0—Concert (contd. from 11.0). 12.15—News; Time. 12.25—Records.
LYONS (La Doua), 12.30—Records.
MADRID (EAJ7), 12.0—Chimes; Announcements; Exchange. 12.15—Time.
MONTE CENERI 12.0—News (contd. from 11.55). 12.5—Orchestra. 12.20—Reading. 12.30—Records.
MUNICH, 12.0—See 11.0 Leipzig. 12.15—Time; Weather; News. 12.25—Records.
OSLO, 12.0—Records. In the Intervals: Weather; For Farmers; Exchange.
PARIS (Eiffel Tower), 12.30—Concert.
PARIS (Poste Parisien), 12.0—Exchange. 12.5—Variety. 12.45—The Léoni Viennese Orchestra. In the Interval, News.
PARIS (Radio-Paris), 12.0—Educational Talk. 12.15—The Goldy Orchestra. In the interval, Exchange; News.
PRAGUE (No. 1), 12.0—See 11.35—Bratislava. 12.25—Talk. 12.35—Economics Talk. 12.45—Records. 12.55—Exchange; Weather.
RADIO-NORMANDIE, 12.0—Records. 12.30—News. 12.45—Opera and Operetta Music.
ROME, 12.0—Orchestra. In the Intervals: News; Time; Announcements.
SOTTENS, 12.0—Financial Report; Records.
STRASBOURG, 12.0—Records; Light Music. 12.45—News.
STUTTART, 12.0—See 11.0 Leipzig. 12.15—Time; News. 12.25—Local News; Weather. 12.35—Records.
TOULOUSE, 12.0—Opera-Comique Songs. 12.30—News. 12.45—Request Music.
TURIN, 12.0—Time; Announcements. 12.5—Opera Records. Overture, "Araldo" (Verdi). Arias, "Adriana Lecouvreur" (Cilea). "Iris" (Mascagni). La serva padrona (Pergolesi). Overture, "Don Giovanni" (Mozart). Aria, "Ne-

WEDNESDAY Feb. 7

12 noon (contd.)

rone" (Boito), Resurrezione (Alfano), Overture, "Mignon" (Thomas). In the Interval: Records; Exchange. VIENNA, 12.0—Time; Announcements. 12.10—The "Wiener Symphoniker." Suite (Gangelberger). Waltz (Komzak). Zigeunerfest (Lehar). Mazurka (Stix). Selection, "The Bayadere" (Kalmán).

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.5—Records. ATHLONE, 1.30—Time; Weather; Stock Report; Records. BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records. BERLIN, 1.15—News. 1.35—Records. BRESLAU, 1.0—Records. 1.15—Post Office Propaganda; Records. 1.50—Market Prices; Exchange. BRNO, 1.5—Market Prices. BRUSSELS (No. 1), 1.0—News. 1.10—Max Alexys and his Orchestra, from the "Ancienne Belgique." BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra. Mme. Farrère (Soprano). DEUTSCHLANDSENDER 1.0—Records. Sonata in B Minor (Liszt). Etudes (Chopin). Suite bergamasque (Debussy). FRANKFURT, 1.0—Records. 1.30—Variety. HAMBURG, 1.0—Music. 1.15—News. 1.35—Records. HEILSBURG, 1.30—Post Office Propaganda; Records. HILVERSUM, 1.0—Light Music (contd. from 11.40). 1.40—Organ: Songs of Scotland (Bodewalt-Lampe). 1.55—Dressmaking. HUIZEN, 1.0—The Van der Morst Ensemble (contd. from 12.10). 1.40—Organ. JUAN-LES-PINS (Radio Côte D'Azur), 1.0—News. 1.15—Variety. LANGENBERG, 1.0—Chamber Music. Johanne Marie Unkel (Contra'to). Engels (Pianoforte). Fassbender (Violini). Schreiber (Cello) and Kirst (Pianoforte). LEIPZIG, 1.0—News. 1.15—A Scandinavian Saga. 1.35—Topical Talk. 1.40—"The Flying Trunk"—Fairy Play (Schmiedel, after Hans Anderson). LYONS (La Doua), 4.0—Concert. In the Interval, News and Exchange. MUNICH, 1.0—Time; Weather; News. 1.20—Post Office. 1.50—For Children. PARIS (Eiffel Tower), 1.0—Exchange. 1.15—News. 1.30—For Farmers. 1.45—Labour Market. PARIS (Radio-Paris), 1.0—Orchestra (contd. from 12.15). PRAGUE (No. 1), 1.0—Exchange in German. 1.5—1.15—Labour Market Report in German. PRAGUE (No. 2), 1.30—Quartet. Overture, "If I Were King" (Adam). Waltz (Leopold). Selection, "Mignon" (Thomas). For You (Friml). The Phantom Brigade (Myddleton). REYKJAVIK, 1.15—Variety. ROME, 1.0—Concert (contd. from 12.0). STRASBOURG, 1.0—Time; Exchange. 1.5—Records. STUTTGART, 1.0—Records. 1.30—Shorthand Lesson. TOULOUSE, 1.0—Amusement Guide; Market Prices. 1.5—Accordion Music. 1.15—Songs. 1.30—Orchestra. 1.45—Airs from Operettas. TURIN, 1.0—Records. 1.15—Exchange.

2 p.m.

BARCELONA, 2.0—Humorous Dialogue in Catalan. 2.10 (approx.)—Sextet. BERLIN, 2.0—Exchange. 2.20—Records. 2.45—Talk: Winter Sports in Braunlage and Schierke. BEROMÜNSTER, 2.30—Records: Folk Music. 2.59—Time. BRESLAU, 2.0—Exchange. 2.10—Reminiscences of a Miner. 2.30—Talk: Nationalism and the Languages. BRNO, 2.40—For Young People. BUDAPEST (No. 1), 2.30—Educational Programme. DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—For Children. 2.45—Reading.

FRANKFURT, 2.0—Variety (contd. from 1.30). 2.30—Weather; Time; Economic Notes. HAMBURG, 2.0—Exchange. 2.40—Announcements. 2.50—Ice Report. HEILSBURG, 2.0—Exchange. 2.20—For the Housewife. 2.30—For Children. HILVERSUM, 2.0—Dressmaking. 2.40—For Children. HUIZEN, 2.0—Organ (contd. from 1.40). 2.40—Religious Address. KALUNDBORG, 2.0—Records. 2.30—Instrumental Ensemble. In an interval, Talk to the Older Generation. LANGENBERG, 2.0—Chamber Music (contd. from 1.0). 2.10—"Aerial Bombs"—Radio Play (Plücker). 2.30—Economic Notes. 2.50—Topical Talk. LEIPZIG, 2.0—Fairy Play (contd. from 1.40). 2.40—Economic Notes. MADRID (EAJ7), 2.0—Chimes; Time; Weather; Theatre Notes. 2.15 (approx.)—Concert. In the Interval: Exchange. MOSCOW (No. 1), 2.15—For Children. MUNICH, 2.0—For Children. 2.10—Talk: German Porcelain. 2.30—Talk: The North Sea Crab Fisheries. 2.50—Weather; Agricultural Notes. PARIS (Eiffel Tower), 2.0—Exchange. 2.15—Economic Notes. 2.30—Exchange; Colonial Notes. 2.45—Theatre Review; Topical Talk. PARIS (Poste Parisien), 2.0—Exchange. PRAGUE (No. 1), 2.55—Exchange. PRAGUE (No. 2), 2.0—Quartet (contd. from 1.30). 2.10—German Transmission: Recitations; For Children. 2.45—News in German. SOTTENS, 2.28—Time. TOULOUSE, 2.0—News; Exchange. VIENNA, 2.30—Time; Announcements. 2.50—Talk. WARSAW, 2.25—News. 2.30—Economic Notes. 2.40—Pianoforte Recital by Mme. Feinstein.

3 p.m.

BARCELONA, 3.0—For Invalids. BERLIN, 3.0—"Youth and Old Age"—Literary and Musical Programme. BEROMÜNSTER, 3.0—Slav Music. 3.20—Old and Modern Polish Folk Songs. 3.45—Orchestra—Selection, "Boris Godunov" (Mussorgsky). BRATISLAVA, 3.50—For Children. BRESLAU, 3.0—See Leipzig. BRNO, 3.0—Station Orchestra, conducted by Janota. BUDAPEST (No. 1), 3.0—For Women. DEUTSCHLANDSENDER, 3.0—See Leipzig. FRANKFURT, 3.0—Orchestra, Conductor, Merien. Georg Kuhlmann (Pianoforte); Spira (Tenor). HAMBURG, 3.0—See Berlin. HEILSBURG, 3.0—See Berlin. HUIZEN, 3.0—Religious Address. 3.10—Records. 3.40—Songs. Benedictus (Hasse). Angels ever bright and fair (Handel). Aria, the St. John Passion (Bach). Records. The Violet (Scarlatti). Pur Dicesi (Lotti). Aria, "Céphale et Procris" (Grétry). Records, O Jesu ego amo Te (Diepenbrock). Berceuse (Diepenbrock). Dat je gekomen bent (Landre). Lielvings-kind (Andriessen). KALUNDBORG, 3.0—Instrumental Ensemble (contd. from 2.30). KAUNAS, 3.0—Talk: China. 3.20—Song Recital. 3.40—Talk: Chemical Warfare. LANGENBERG, 3.0—Dance Music. 3.45—Talk: The Gothic Vases in the Fliegenberg Museum. LEIPZIG, 3.0—Station Orchestra. Conductor, Blumer. Richard Tauch (Viola). First Movement, Serenade for Strings (Klengel). Viola Concerto (Walter). Selection, "A Masked Ball" (Verdi). Habanera (Chabrier). Waltz (Jos. Strauss). Overture (Schubert). Waltz (Komzak). LYONS (La Doua), 3.0—Concert, conducted by Tomasi. Soloist, Mlle. A. Raveau. MADRID (EAJ7), 3.0—Concert. 3.40—News; Film Review. 3.50—News. MONTE CENERI, 3.0—See Beromünster. MOSCOW (No. 1), 3.0—News. MUNICH, 3.0—See Leipzig. PARIS (Eiffel Tower), 3.0—News; Aviation Notes. 3.15—Exchange. 3.45—Talk.

PARIS (Poste-Parisien), 3.15—Exchange. 3.45—Exchange. PARIS (Radio-Paris), 3.45—Exchange. PRAGUE (No. 1), 3.0—See Brno. 3.50—Marionette Play. RADIO-NORMANDIE, 3.30—Variety. ROME, 3.30—Children's Radio Review. 3.55—News. SOTTENS, 3.0—See Beromünster. STRASBOURG, 3.0—Concert Conductor, Henri Tomasi. STUTTGART, 3.0—See Frankfurt. TURIN, 3.35—News. 3.45—Children. VIENNA, 3.0—Talk (contd. from 2.50). 3.10—Talk: Old Vienna. 3.35—Talk for Parents. 3.50—Talk: The Ice-Yachting Races at Neusiedlersee. WARSAW, 3.10—Programme for Children. 3.40—The Letter Box. 3.55—A Jazz Band and Loda Halama (Song Refrains).

4 p.m.

BARCELONA, 4.0—News. 4.15—Television Transmission. BERLIN, 4.0—Literary and Musical (contd. from 3.0). BEROMÜNSTER, 4.0—Talk. 4.10—Songs in Bernese Dialect. 4.30—Chamber Music. BRATISLAVA, 4.0—Violin Recital. 4.40—Recital of Slovak Folk Songs. BRESLAU, 4.0—See 3.0 Leipzig. BRNO, 4.35—Pianoforte Recital. 4.55—Records. BUCHAREST, 4.0—Station Orchestra. Overture, "La dame blanche" (Boieldieu). Ballet Suite, "Coppélia" (Delibes). Waltz (Johann Strauss). Selection, "Gianni Schicchi" (Puccini). BUDAPEST (No. 1), 4.0—Taratoga Recital by Adalbert Haják. 4.30—Talk. DEUTSCHLANDSENDER, 4.0—"Aerial Bombs"—Radio Play (Plücker). 4.20—Orchestra. FRANKFURT, 4.0—Concert (contd. from 3.0). 4.45—Topical Talk. HAMBURG, 4.0—See 3.0 Berlin. HEILSBURG, 4.0—See 3.0 Berlin. HILVERSUM, 4.0—For Children. HUIZEN, 4.0—Songs (contd. from 3.40). 4.40—For Children. KALUNDBORG, 4.0—Instrumental Ensemble (contd. from 2.30). 4.30—Exchange; Fish Market Prices. 4.45—Talk in English: The Australian Shepherd. KAUNAS, 4.0—Records. 4.10—Talk in Polish. 4.30—Quartet. LAHTI, 4.0—For Children. 4.40—For Boys. 4.50—News in Finnish. 4.59—Time, Weather. LANGENBERG, 4.0—Folk Music, for Soprano, Guitar, Choir and Mandoline Orchestra. LEIPZIG, 4.0—Orchestra (contd. from 3.0). 4.30—Reading. 4.50—Marching Song Recital by Hermann Munk, with Lute accompaniment. LYONS (La Doua), 4.0—Concert. MONTE CENERI, 4.0—See Beromünster. MORAVSKÁ-OSTRAVA, 4.55—Talk: A Legionary's Reminiscences. MOSCOW (No. 1), 4.30—Communist Party Programme. MUNICH, 4.0—See Deutschlandsender. 4.30—See Leipzig. OSLO, 4.0—Records. PARIS (Eiffel Tower), 4.0—Tourist Report. 4.15—Exchange. PARIS (Radio-Paris), 4.50—Exchange. PRAGUE (No. 1), 4.0—Marionette Play. 4.35—Cello Recital. Sonata in G minor (Eccles). Kol Nidrei (Bruch). The Flight of the Bumble Bee (Rimsky-Korsakov). 4.55—Talk: University Education for Women. SOTTENS, 4.0—See Beromünster. STOCKHOLM, 4.0—Weather. 4.5—Folk Music. 4.25—Reading (Ivar Lo-Johansson). 4.55—Records. STUTTGART, 4.0—See 3.0 Frankfurt. 4.45—Dialogue: In the Gas Works. REYKJAVIK, 4.0—Weather. ROME, 4.10—Orchestra. 4.55—Weather. STRASBOURG, 4.45—Talk in German: Electricity. TOULOUSE, 4.15—News; Exchange. TURIN, 4.0—For Children. 4.10—Song Recital. 4.55—Weather. VIENNA, 4.5—Hans Ewald Heller Concert by the Anita Ast Quartet, with Lily Ulanowsky (Soprano) and Bernhard Kaff (Pianoforte). String Quartet in E. Songs. Pianoforte Suite. Quartet. 4.55—Medical Talk. WARSAW, 4.0—Jazz with Song Refrains. 4.50—The Letter Box.

5 p.m.

BERLIN, 5.0—Review of the Week. 5.25—"Aerial Bombs"—Radio Play (Plücker). 5.45—Topical Talk; Announcements. BEROMÜNSTER, 5.0—For Children. 5.30—Talk: Folk Customs of Eastern Switzerland. BRATISLAVA, 5.0—Songs (continued from 4.40). 5.15—Hungarian Transmission. BRESLAU, 5.0—See 4.50 Leipzig. 5.10—Market Prices. 5.15—Hiking Songs with Commentary. 5.45—Programme Announcements; Weather; Prices. BRNO, 5.5—Announcements. 5.15—Talk. 5.25—German Talk: Wagner in Italy. BRUSSELS (No. 1), 5.0—Robert de Kers and his Cabaret Kings. BRUSSELS (No. 2), 5.0—Dance Music. BUCHAREST, 5.0—News. 5.15—Station Orchestra. BUDAPEST (No. 1), 5.0—Slovak Programme. DEUTSCHLANDSENDER, 5.0—Poems. 5.5—A Musical Guessing Competition. FRANKFURT, 5.0—For Young People. 5.25—See Berlin. 5.45—News; Time. HAMBURG, 5.0—Song Recital by Elfriede Nissen and Richard Germer. 5.25—See Berlin. 5.45—Exchange; Market Prices. 5.50—Weather. HEILSBURG, 5.0—Talk: Boxing. 5.15—Ice Report. 5.25—See Berlin. 5.50—Weather. HILVERSUM, 5.0—For Children. 5.10—Orchestra, conducted by de Groot. Ballet Music, "Undine" (Lortzing). Dorfschwalben aus Oesterreich (Strauss). Selection from Noel Coward's "Cavalcade." 5.40—Recitations. 5.55—Orchestra. The Maid of the Black Forest (Jessel). Ich liebe dich (Grieg). Elégie (Massenet). Glocken der Liebe (Benatzky). Selection, "Nankiris Hochzeit" (Lincke). La mélancolie (Bull). La feria (Lacôme). HUIZEN, 5.0—For Children. KALUNDBORG, 5.0—Talk in English. 5.15—French Lesson. 5.45—Weather. 5.54—Announcements. KAUNAS, 5.0—Medical Talk. 5.20—Records. 5.40—News. LAHTI, 5.0—Weather. 5.10—News in Swedish. LANGENBERG, 5.0—Community Life in a Students' Hostel—a Radio Report. 5.30—German for Germans. 5.45—Economic Notes. LEIPZIG, 5.0—Song Recital (continued from 4.50). 5.10—Talk: Pioneers. 5.30—Records. MORAVSKÁ-OSTRAVA, 5.0—Talk (continued from 4.55). 5.5—Station Orchestra. MOSCOW (No. 1), 5.0—Communist Party Programme. 5.30—Programme for Collective Farm Workers. MUNICH, 5.0—See 4.50 Leipzig. 5.10—Felix Dahn Programme. 5.45—Time; Weather; Agricultural Notes. OSLO, 5.0—French Lesson. 5.30—For Girls. PARIS (Eiffel Tower), 5.45—News. PRAGUE (No. 1), 5.5—Records. 5.15—For Workers. 5.25—German Transmission: Talk on Wireless: For Workers. PRAGUE (No. 2), 5.50—For Farmers-RADIO-NORMANDIE, 5.30—Chansonnettes. ROME, 5.0—Wheat Market Report. 5.15—Tourist Report. 5.25—For Farmers (in Italian and English). 5.45—Shipping and Sports Notes. 5.50—Dopolavoro Notes. SOTTENS, 5.0—For Children. STOCKHOLM, 5.0—Records. 5.45—German Lesson. STRASBOURG, 5.0—Orchestra, conducted by Roskam. STUTTGART, 5.0—Readings. 5.25—See Berlin. 5.45—Time; Weather; For Farmers. TURIN, 5.0—For Farmers; Market Prices. 5.10—Snow Report. 5.15—Tourist Talk. 5.50—Dopolavoro Announcement. VIENNA, 5.0—Medical Talk. 5.20—Talk. 5.40—Talk on the Chinese. WARSAW, 5.0—Talk from Craçow. 5.20—Grieg Records.

6 p.m.

ALGIERS, 6.0—Operetta Arias. 6.20—Lottery Results. 6.30—Art Review. 6.45—Monologues. ATHLONE, 6.0—For Children. 6.45—News.

BARCELONA, 6.30—News. 6.35 (approx.)—Orchestra. News in the Interval. BERLIN, 6.0—See Munich. BEROMÜNSTER, 6.0—Time; Weather; Market Prices. 6.20—Elementary English Lesson. 6.50—Orchestra, the Strauss Dynasty. BRATISLAVA, 6.5—Talk. BRESLAU, 6.0—See Munich. BRNO, 6.35—"The Tsar's Bride"—Opera (Rimsky-Korsakov), relayed from the National Theatre. Conductor: Chalabala. BRUSSELS (No. 1), 6.0—Talk: Bé ranger and Belgium. 6.15—Sixteenth Century Secular Music by the "Schola Cantorum," conducted by Eugène van de Velde, with Commentary. Musiciens (Waelrant). Au feu d'amour (de la Rue). Margot, labourez les vignes (Arcadelt). Un pauvre sot (Yver). Mignonne, allons voir si la rose (Costley). La déportation de Jehan Ockeghem (Josquin des Prés). Petite folle (Orlande Lassus). Bonjour mon cœur (Orlande de Lassus). Tu as Jan, Jan (Pieterz-Sweelinck). Voi ve n'andate al cielo (Arcadelt). Io tacero, ma nel silenzio mio (da Venosa). Solo cara e amata (Monteverde). La bataille de Marignan. BRUSSELS (No. 2), 6.0—Dance Music. 6.15—Talk: Stefaan De Jonghe. 6.30—Records. BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Talk. BUDAPEST (No. 1), 6.0—Slovak Programme. 6.30—Talk. DEUTSCHLANDSENDER, 6.0—See Munich. FRANKFURT, 6.0—See Munich. HAMBURG, 6.0—See Munich. HEILSBURG, 6.0—See Munich. HILVERSUM, 6.0—Orchestra (contd. from 5.55). 6.40—Talk. HUIZEN, 6.0—For Farmers. 6.10—To be announced. 6.40—Police Notes. 6.55—Religious Notes. KALUNDBORG, 6.0—News. 6.15—Time. 6.30—For Farmers. KAUNAS, 6.0—Announcements. 6.30—Orchestra. LAHTI, 6.0—"Il Trovatore"—Opera (Verdi), from the Opera House. LANGENBERG, 6.0—See Munich. LEIPZIG, 6.0—See Munich. LYONS (La Doua), 6.15—News from Paris. MONTE CENERI, 6.15—News; For Farmers. 6.30—Records. 6.45—News. MORAVSKÁ-OSTRAVA, 6.20—Reading. MOSCOW (No. 1), 6.0—Programme for Collective Farm Workers. MUNICH, 6.0—Transmission for all German Stations: S.A. and Reichswehr Ski Championships. OSLO, 6.0—Announcements. 6.15—News. 6.30—Recitation. PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Theatre Review. 6.45—Topical Programme. PARIS (Poste Parisien), 6.45—Exchange. 6.52—Assurance Societies' Report. PARIS (Radio-Paris), 6.20—Weather; For Farmers; Exchange; Racing Results. 6.45—Records. PRAGUE (No. 1), 6.0—Time; News in German; Record. 6.10—News. 6.20—French Lesson. 6.35—Flute and Guitar Duets, (Fürstenu). 6.50—Talk: Wallenstein. PRAGUE (No. 2), 6.0—Time; For Housewives. 6.5—Records. RADIO-NORMANDIE, 6.30—Talk. ROME, 6.0—News in Foreign Languages. 6.30—Records. 6.50—News. SOTTENS, 6.0—Talk: The Origin and Evolution of Life. 6.30—Wireless Notes. 6.59—Weather. STOCKHOLM, 6.0—German Lesson. 6.15—Weather; News. 6.30—Talk. STRASBOURG, 6.0—Trio. STUTTGART, 6.0—See Munich. TOULOUSE, 6.0—News. 6.15—Viennese Orchestra. 6.30—Songs. 6.50—Talk. TURIN, 6.0—Time; News in Foreign Languages. 6.30—Records. 6.50—Announcements; News; Weather. VIENNA, 6.0—Karl Bacher reads. 6.25—Time; Announcements. 6.35—Orchestra. WARSAW, 6.0—Announcements. 6.25—Reading. 6.40—Sports Notes. 6.47—News.

7 p.m.

ALGIERS, 7.0—Exchange. 7.10—Shipping Notes. 7.15—Weather. 7.20—Request Records. 7.55—News. ATHLONE, 7.0—Gaelic Talk. 7.15—German Lesson. 7.30—Station Orchestra. BARCELONA, 7.0—Request Records. 7.30—Exchange; Request Records.

WEDNESDAY Feb. 7

7 p.m. (contd.)

BERLIN, 7.0—News. 7.10—See Hamburg. BEROMÜNSTER, 7.0—Orchestra—Strauss Music. 7.30—Talk by Professor Hanselmann. BRESLAU, 7.0—News. 7.10—See Leipzig. BRNO, 7.0—"The Tsar's Bride" (Rimsky-Korsakov) (contd. from 6.35 p.m.). BRUSSELS (No. 1), 7.0—Sixteenth Century Music (contd. from 6.30 p.m.). 7.15—Protestant Talk. 7.30—Medical Talk. BRUSSELS (No. 2), 7.0—Records. 7.15—Talk: Inherited Professions. 7.30—For Gardeners. 7.35—Sports Talk. BUCHAREST, 7.0—Violin Recital by Nina Alexandresco. Fantaisie basque (Pierné). Three Dances (Lazár). Chant de Roxane (Szymanowsky-Kochanski). Minstrel (Debussy). 7.30—Aria Recital by Alice Nicolaiesco. BUDAPEST (No. 1), 7.0—Ludwig Veres and his Cigány Band. 7.45—News. DEUTSCHLANDSENDER, 7.0—Motto; Weather; Announcements. 7.10—Wagner Anecdotes. 7.30—Wagner Concert. The Station Orchestra, conducted by Lindner. Rudolf Laubenthal (Tenor). Overture, "Rienzi." Extract, "The Mastersingers." FRANKFURT, 7.0—Topical Talk. 7.10—"Father is against it"—Humorous Radio Sequence (Stratz). HAMBURG, 7.0—News. 7.10—Radio Report with Records from the Oil Wells in the Lüneburger Heide. HEILSBURG, 7.0—News. 7.10—See Hamburg. HILVERSUM, 7.0—Orchestra. Escala No. 3 (Hert-Pertiot). "La boîte à joujoux" (Debussy). Castilian Dance (Turina). The Road to the Alhambra (Turina). In the Gardens of Murcia (Turina). Spanish Suite (Infante). 7.40—S.O.S. Announcements; Miscellaneous Items. HUIZEN, 7.0—Religious Notes. 7.10—Frisian Programme. 7.40—Orchestra. Parker (Organ). Overture, "Im Reiche des Indra" (Lincke). Potpourri, A B C (Kozak). Introduction to and Variations on Weber's Last Waltz (Fuchs). Semannlos (Petrie). In der Waldschmiede (Eilenberg). Rhapsody (Ketelbey). Humoresque (Dvorak). Piazza de Popolo (Juel-Frederiksen). KALUNDBORG, 7.0—Time from the Town Hall. 7.1—Overture, "Correggio" (Hartmann) by the Orchestra, conducted by Reesen. 7.10—Introductory Talk to the following Transmission. 7.25—"Correggio"—Tragedy (Adam Oehlenschläger), arranged for Radio. KAUNAS, 7.0—Talk. 7.20—Duets. 7.40—For Housewives. LAHTI, 7.0—II Trovatore (Verdi). LANGENBERG, 7.0—News. 7.5—Talk. 7.15—Sixth Symphony in C (Schubert); Orchestra, conducted by Buschkötter. 7.50—"Stahl und Brot"—Radio Play (Moog). LEIPZIG, 7.0—To-day's News. 7.10—Bandonian and Zither Orchestra, and Choir. LYONS (La Doua), 7.30—Light Music. 7.40—Local News. 7.50—Talk; Gardening. MADRID (EAJ7), 7.0—Chimes; Exchange; Announcements. 7.15 (approx.)—Sextet Concert. In the interval, Talk by Ramon Gomez de la Serna. MONTE CENERI, 7.0—Report from a Bakery. 7.30—Chamber Music by the Amati Trio. Trio in B flat (Schubert). Trio in C (Mozart). MUNICH, 7.0—To-day's News. 7.10—See Leipzig. OSLO, 7.0—Time. 7.1—Pianoforte Recital by Anton Meyer. 7.30—Talk on Science. PALERMO, 7.0—Announcements. 7.20—Records. In the Interval, Time; News. 7.45—An Operetta. PARIS (Eiffel Tower), 7.15—Weather. 7.25—Political Announcements. 7.45—For Children. PARIS (Poste-Parisien), 7.0—Records. 7.7—Talk. 7.15—News. 7.30—Record: Rubinstein's Melody in F. 7.34—Talk. 7.38—Aviation Notes. 7.45—Topical Talk. PARIS (Radio-Paris), 7.0—Topical Talk. 7.30—Medical Talk. 7.50—News. PRAGUE (No. 1), 7.0—Talk (contd. from 6.50 p.m.). 7.5—Humorous Talk. 7.30—Jazz Music.

RADIO-NORMANDIE, 7.0—Request Programme. ROME, 7.0—Time; Announcements. 7.10—Records. 7.30—Government Announcements. 7.40—Records. 7.50—Opera from the San Carlo Theatre. In the Interval: Talk; News. SOTTENS, 7.0—"Old-Time Russia."—Part I. Popular Legends. Part II. Liturgical Music. The Orlova Choir. Conductor: Orloff. 7.35—Travel Talk: Belgium. 7.55—News. STOCKHOLM, 7.0—Time. 7.1—Stenhammar Concert. The Stockholm Concert Society, conducted by Václav Talich. Astrid Berwald (Pianoforte). Serenade in C for Strings. Pianoforte Concerto No. 2 in D minor. STRASBOURG, 7.0—Talk: Indian Politics. 7.15—Talk by the Secretary to the Board of Trade. 7.30—Time; News. 7.45—Records. STUTTGART, 7.0—See Frankfurt. TOULOUSE, 7.0—Light Music. 7.15—News; Exchange. 7.30—Opera Music. 7.45—Orchestra. TURIN, 7.0—Talk. 7.10—Records. 7.40—"Paese di Campanelli," operetta (Ranzato). After the Operetta: Dance Music. VATICAN CITY, 7.0—Religious Information in Italian. VIENNA, 7.0—Orchestra (contd. from 6.35 p.m.). 7.40—News. WARSAW, 7.0—Great Thoughts. 7.2—The Station Orchestra, conducted by Nawrot. Witas (Tenor).

8 p.m.

ALGIERS, 8.0—Time. 8.2—Music. 8.25—News. 8.30—Symphony in D minor (Franck) The Station Orchestra. Conductor: Delosse. ATHLONE, 8.0—Conn O'Shea (Bartone). 8.10—Pianoforte Solos. 8.20—Play. 8.50—Patricia Black (Contralto). BARCELONA, 8.0—Records. 8.30—Educational Programme. 8.45—News. BERLIN, 8.0—See 7.10 p.m. Hamburg. 8.10—See Hamburg. BEROMÜNSTER, 8.0—Weather; News. 8.10—Baroque Music. 8.40 (approx.)—Organ. BRESLAU, 8.0—See 7.10 p.m. Leipzig. BRNO, 8.0—"The Tsar's Bride" (Rimsky-Korsakov) (contd. from 6.35 p.m.). BRUSSELS (No. 1), 8.0—European Concert. The Station Orchestra, conductor, Désiré Defauw. Mme. Scapus-Van Dommelen (Pianoforte) and Henri Wagemans (Violin). Symphony (Poot). Concerto for Double Pianoforte and Orchestra (de Boeck). 8.45—Commentary on the European Concert. 8.55—Concert (contd.). Adagio for Strings (Lekeu). Violin Concerto No. 4 (Vieuxtemps). Symphonic Poem. Le chasseur maudit (Franck). BRUSSELS (No. 2), 8.0—Orchestra. Serbian Dances (Sirteck). Egypta (Haydn Wood). Servus Wien (Dostal). Humorous Items. Suite (de Micheli). Suite for Strings (de Frumerie). Norwegian Country Dances (Borch). Albanian Suite (Coleridge-Taylor). Rhapsody in G (Dvořák). Humorous Items. Pieces from the Bohemian Suite (Weinberger). Hallo America (Finck). Slav Rhapsody (Friedemann). Study for Violins (Meyseder). BUCHAREST, 8.0—European Concert from Brussels No. 1. BUDAPEST (No. 1), 8.0—European Concert from Brussels No. 1. DEUTSCHLANDSENDER, 8.0—Wagner Concert (contd. from 7.30 p.m.). 8.10—"Immortality"—a Dialogue (Paul Ernst) on Records. 8.30 (approx.)—Wagner Concert (contd.). Air from "The Valkyrie" Prelude to the Third Act and Recitative from Tannhäuser. Kaisermarsch. FRANKFURT, 8.0—European Concert from Brussels (No. 1). 8.45—Reading. HAMBURG, 8.0—Radio Report (contd. from 7.10 p.m.). 8.10—Miners' Songs by the Station Choir, Herbert Taubert (Bass) and Gregor (Pianoforte). 8.40—Hanseatic Suite (Scheffler) by the Station Symphony Orchestra, conducted by Maass. HEILSBURG, 8.0—European Concert relayed from Brussels No. 1. HILVERSUM, 8.0—European Concert from Brussels (No. 1). In an interval, News. HUIZEN, 8.0—Orchestra (contd. from 7.40 p.m.). 8.40—Talk. JUAN-LES-PINS (Radio Côte D'Azur), 8.0—Amusement Guide; Exchange News. 8.10—Talk. 8.20—Concert. KALUNDBORG, 8.0—"Correggio"—Tragedy (contd. from 7.25 p.m.).

KAUNAS, 8.0—Orchestra. 8.30—Educational Talk. 8.50—Dance Music. LAHTI, 8.0—II Trovatore (Verdi). LANGENBERG, 8.0—Radio Play (contd. from 7.50 p.m.). LEIPZIG, 8.0—Concert (contd. from 7.10 p.m.). 8.10—Military Band. LYONS (La Doua), 8.0—Talk. 8.20—Topical Talk. 8.30—"French Operetta From Rameau to Honegger"—Concert, Introductory Talk. Extracts from "Platée" (Rameau). "Joconde" (Nicolo). "Les voitures versées" (Boieldieu). "La vie Parisienne" (Offenbach). "Les Brigands" (Offenbach). "Le Petit Faust" (Hervé). "Le Sire de Vergy" (Terra). "Phi-phi" (Christine). "La-haut" (Yvain). "Lolotte" (Hitler). "Les aventures du roi Pausole" (Honegger). Ptiphar (Jourdain). Six cylindres et un cœur" (De Fragny). After the Programme, News. MADRID (EAJ7), 8.0—Sextet. 8.15—News. MONTE CENERI, 8.0—Trio (contd. from 7.30 p.m.). 8.15—Records. MOSCOW (No. 1), 8.55—Chimes. MUNICH, 8.0—See 7.10 p.m. Leipzig. 8.10—A Visit to the Children's Carnival Festival. OSLO, 8.0—The Station Orchestra, conducted by Kramm. Symphonic Dances Nos. 1 and 2 (Grieg). Lykken mellem to mennesker (Alnaes). Feuille d'Album (Lund). Bergsiana (Halvorsen). 8.30—For Farmers. 8.40—Weather. 8.45—News. PALERMO, 8.0—Operetta (contd. from 7.45 p.m.). 8.15—"Le vie del Signore"—Comedy in One Act (Donaudy). 8.45—Operetta (contd. from 7.45 p.m.). In the Interval: Talk. PARIS (Eiffel Tower), 8.0—For Children. 8.15—Trio, Mme. Fromont-Delune (Cello), Delune (Pianoforte) and Masset (Flute). Trio No. 3 (Haydn). Adagio (de Grigny). Eighteenth Century Musette and French Contradance. PARIS (Poste Parisien), 8.0—"The Count of Luxembourg"—Operetta (Lehár). In the Interval: News. PARIS (Radio-Paris), 8.0—Reading (Farrère). 8.30—News. 8.45—Colonne Concert, conducted by Paul Paray. Cahuzac (Clarinet). The Eighth Symphony (Beethoven). Overture, "Figaro" (Mozart). Introduction and Concert Allegro (Weber). Suite, Mother Goose (Ravel). Selection, "The Snow Maiden" (Rimsky-Korsakov). PRAGUE (No. 1), 8.0—European Concert from Brussels No. 1. In the Interval: News. RADIO-NORMANDIE, 8.0—Concert. REYKJAVIK, 8.0—Light Music. 8.10—Weather. 8.20—Announcements. 8.25—Reading. 8.50—Announcements. ROME, 8.0—Opera (contd. from 7.50) SOTTENS, 8.0—European Concert from Brussels No. 1. STOCKHOLM, 8.0—Reading of New Swedish Lyrics. 8.20—Songs to the Lute. 8.45—Weather; News. STRASBOURG, 8.0—Press Review in German; Lottery Results; Announcements. 8.30—Orchestra, conducted by Scherchen, from the "Palais des fêtes" Overture, "Hermann und Dorothea" (Schumann). Violin and Cello Concerto (Brahms). Don Quixote (Richard Strauss). STUTTGART, 8.0—European Concert, relayed from Brussels No. 1. 8.45—Hugo Wolf Songs by Agnes von Spetzler. TOULOUSE, 8.0—Chansonnets. 8.15—Sound Film Songs. 8.30—Argentine Orchestra. 8.45—Songs. TURIN, 8.0—Operetta (contd. from 7.40 p.m.). VIENNA, 8.0—European Concert from Brussels No. 1. WARSAW, 8.0—European Concert from Brussels No. 1. 8.45—Talk in Esperanto from Cracow: Polish Art.

9 p.m.

ALGIERS, 9.0—News; Records. 9.10—Station Orchestra. Paysage polaire (Silver). Overture, "Phédre" (Massenet). 9.55—News. ATHLONE, 9.0—Station Orchestra. 9.10—Talk: The Citadel of Maev. 9.30—Variety. BARCELONA, 9.0—Chimes; Announcements; Exchange. 9.10—Light Orchestral Music. BERLIN, 9.0—Weather; News; Sports. 9.20—See Hamburg. BRATISLAVA, 9.30—News in Hungarian. BRESLAU, 9.0—News. 9.15—Time; News. 9.25—Schrammel Trio.

BRNO, 9.0—News. 9.15—Records. BRUSSELS (No. 1), 9.0—European Concert (contd. from 8.0 p.m.). BRUSSELS (No. 2), 9.0—Orchestra (contd. from 8.0 p.m.). BUCHAREST, 9.0—News. BUDAPEST (No. 1), 9.0—See 8.0 Brussels No. 1. 9.35 Records. DEUTSCHLANDSENDER, 9.0—News. 9.45—Weather. FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.25—News. 9.45—"Carnival in the Black Forest." HAMBURG, 9.0—News. 9.20—The Station Symphony Orchestra. Conductor: Maass. HEILSBURG, 9.30—News. HILVERSUM, 9.0—See 8.0 Brussels (No. 1). 9.40—Songs and Organ. A Song (Tosti). Frühlingsnacht (Bohn). Still wie die Nacht (Bohn). Tandis que tout dort (Grétry). Frag' nicht, frag' nicht (May). Berceuse (Godard). Marie Louise (Godard). HUIZEN, 9.10—Orchestra. Ochsenmenuet (Haydn). Andante (Kuhlauf). Rigaudon (Rameau). Selection, "Orpheus" (Gluck). Concerto grosso (Scarlatti). Schumann Potpourri (Schreiner). In the interval—News. JUAN-LES-PINS (Radio Côte D'Azur), 9.0—News; Weather. 9.15—Concert. KALUNDBORG, 9.0—"Correggio"—Tragedy (contd. from 7.25). 9.10—News. 9.25—English Music—Orchestra. Overture (Benett). Selection, "The Geisha" (Jones). Extracts, The Egyptian Suite (Haydn-Wood). Military March (Elgar). KAUNAS, 9.0—Dance Music. LANGENBERG, 9.0—Time; News. 9.20—Records. LEIPZIG, 9.0—News; Time. 9.15—Announcements. 9.25—See Breslau. LYONS (La Doua), 9.0—French Operetta (contd. from 8.30 p.m.). MADRID (EAJ7), 9.30—Chimes; Time; News. 9.45 (approx.)—Madrid Symphony Orchestra, conducted by Enrique Fernandez Arbos. MUNICH, 9.0—Time; Weather; News; Exchange; Sports Notes. 9.25—See Breslau. MOSCOW (No. 1), 9.5—International Broadcast. OSLO, 9.0—Topical Talk. 9.15—Concert Version of "The Magic Flute"—Opera (Mozart). The Station Orchestra, conducted by Kramm. PALERMO, 9.0—Operetta (contd. from 7.45 p.m.). PARIS (Poste Parisien), 9.0—"The Count of Luxembourg" (Lehár) (contd. from 8.0 p.m.). PARIS (Radio-Paris), 9.0—Colonne Concert (contd. from 8.45 p.m.). 9.30—News; Fashion Review. 9.45 (approx.)—Concert (contd.). PRAGUE (No. 1), 9.0—See 8.0 Brussels (No. 1). 9.30—News in French. RADIO-NORMANDIE, 9.0—Concert. REYKJAVIK, 9.0—Chimes; News. 9.30—Reading. ROME, 9.0—Opera (contd. from 7.50 p.m.). SOTTENS, 9.0—See 8.0 Brussels No. 1. 9.30—Talk: The League of Nations. STOCKHOLM, 9.0—Dance Music by the Ender Orchestra. STRASBOURG, 9.0—Orchestra (contd. from 8.30 p.m.). 9.30 (approx.)—News. 9.40 (approx.)—Orchestra. STUTTGART, 9.0—Time; News. 9.15—What everyone should know. 9.25—News. 9.45—Records. TOULOUSE, 9.0—Light Music. 9.30—Opera Music. 9.45—Viennese Orchestra. TURIN, 9.0—Operetta (contd. from 7.40 p.m.). VIENNA, 9.0—European Concert from 8.0 Brussels (No. 1). WARSAW, 9.0—Mickiewicz Programme.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time, News, Weather. 10.40—Irish Music. BARCELONA, 10.0—Recital by Jeanetta Bergmann (Soprano). 10.30—Quartet in F (Glazunov). BERLIN, 10.0—Dance Music. BRESLAU, 10.0—Station Orchestra, conducted by Rischka. Overture, "Maritana" (Wallace). Selection, "Das Nachtlager in Granada" (Kreutzer). Waltz from "Der Obersteiger" (Zeller). Selection, "Firenze ridente" (Raffaelli). German Marches (Blankenburg). BRUSSELS (No. 1), 10.0—News. 10.10—Robert Kers and his Cabaret Kings. BRUSSELS (No. 2), 10.0—News. 10.10—Dance Music. BUDAPEST, (No. 1), 10.0—Records. 10.15—Dance Music.

DEUTSCHLANDSENDER, 10.0—See Stuttgart. FRANKFURT, 10.0—See Stuttgart. HAMBURG, 10.0—The Small Station Orchestra, the Male Voice Quartet, and Otto Albrecht (Songs). Conductor: Gerhard Maass. HEILSBURG, 10.0—Dance Music. HILVERSUM, 10.0—Songs and Organ (contd. from 9.40 p.m.). 10.10—Sports Talk. 10.30—Concert conducted by Horst. HUIZEN, 10.0—Orchestra (contd. from 9.10 p.m.). 10.10—Records. LANGENBERG, 10.0—Dance Music. LEIPZIG, 10.0—See Breslau. MADRID (EAJ7), 10.0—Symphony Orchestra (contd. from 9.45 p.m.). MADRID (EAQ), 10.30—Light Music. 10.45—News. MUNICH, 10.0—See Breslau. PALERMO, 10.0—News. PARIS (Poste Parisien), 10.0—"The Count of Luxembourg" (Lehár) (contd. from 8.0 p.m.). 10.10—Records. 10.40—News, Exchange. PITTSBURGH, 10.0—Babe Ruth Boys' Club. 10.15—KDKA Kiddies' Klub. 10.30—Singing Lady, from New York. 10.45—Orphan Annie, from New York. RADIO-NORMANDIE, 10.0—Concert. REYKJAVIK, 10.0—Violin Recital by Gudmundsson: Pianoforte Concerto (Rachmaninoff), on Records. ROME, 10.0—Opera (contd. from 7.50 p.m.). STUTTGART, 10.0—"Night Revelers"—Musical Pot-pourri (arr. Görlich). The Station Orchestra and Soloists. STRASBOURG, 10.0—Orchestra (contd. from 8.30 p.m.). 10.30—Orchestra. TOULOUSE, 10.0—Sound Film Songs. 10.15—North African News. 10.30—Operetta Music; Selection, "White Horse, Inn" (Stolz-Benatzky). Waltz, "Countess Maritza" (Kálmán). Song (Yvain). 10.45—Bal Musette. TURIN, 10.0—News. VIENNA, 10.0—Talk in Esperanto: Carnival Customs in Vienna. 10.15—Dance Records; Announcements. WARSAW, 10.0—News. 10.5—Dance Records.

11 p.m.

BARCELONA, 11.0—Dance Music. BRESLAU, 11.0—Overtures. The Station Orchestra, conducted by Rischka. "Das Nachtlager in Granada" (Kreutzer). "Si j'étais roi" (Adam). "The Daughter of the Regiment" (Donizetti). "Sylvana" (Weber). "Mignon" (Thomas). "Die schöne Galathée" (Suppé). Hungarian Comedy Overture (Keler-Bela). FRANKFURT, 11.0—Concert. HILVERSUM, 11.0—Concert. 11.10—Records. HUIZEN, 11.0—Records. LAHTI, 11.0—Weather. LANGENBERG, 11.0—Dance Music. LEIPZIG, 11.0—See Breslau. MADRID (EAJ7), 11.0—Symphony Orchestra (contd. from 9.45 p.m.). 11.45—News. MADRID (EAQ), 11.0—Popular Concert. 11.45—Light Music. MUNICH, 11.0—See Breslau. PITTSBURGH, 11.0—News. Pat Haley. 11.15—Sports, Programme Preview. 11.30—KDKA Salon Orchestra. 11.45—Lowell Thomas, from New York. RADIO-NORMANDIE, 11.0—Variety. STUTTGART, 11.0—See Frankfurt. TOULOUSE, 11.0—Request Music. 11.15—Dance Music.

12 midnight

BARCELONA, 12.0—News. MADRID (EAJ7), 12.0—Chimes. MADRID (EAQ), 12.0—Variety. PITTSBURGH, 12.0—Amos 'n' Andy, from New York. 12.15 (Thursday)—Gems of Melody, from New York. 12.30—Potash and Perlmutter, from New York. 12.45—Irene Rich, from New York. RADIO-NORMANDIE, 12.0—News in English. 12.15 (Thursday)—Light Music. SCHENECTADY, 12.45 (Thursday)—Stock Reports. TOULOUSE, 12.0—News. 12.5 (Thursday)—Spanish Songs. 12.15—Military Music.

1 a.m. (Thursday)

BARCELONA, 1.0—Variety. RADIO-NORMANDIE, 1.0—News. 1.15—Dance Music.

2 a.m. (Thursday)

RADIO-NORMANDIE, 2.0—Dance Music.

THURSDAY (February 8)

NATIONAL

For Time Signals, see Monday
 10.15 a.m. (Daventry)—Service.
 10.30 (Daventry)—Weather Forecast.
 10.45—"The Week in Westminster."
 Mr. G. H. Hall, M.P.
 11.0-11.20—"Events at Home and Abroad."
 12 noon—The New Victoria Cinema Orchestra, Edinburgh.
 1.0 p.m.—Christopher Stone.
 2.0—For the Schools: Reception Test. 2.5—Tracing History Backwards. 2.30—King's English—III.
 3.0—Evensong from Westminster Abbey.
 3.50—For the Schools: German Reading.
 4.5 (Daventry)—The Scottish Studio Orchestra. Margaret Allan (Soprano).
 5.15 (except Daventry)—The Casani Club Orchestra.
 5.15 (Daventry)—The Children's Hour. 6.0—"The First News."
 6.30—The Foundations of Music. Haydn String Quartets, Op. 1.
 6.50—Spanish Talk.
 7.30—"Industrial Britain—Its People at Work." Professor John Hilton.
 8.0—The B.B.C. Orchestra (Section E), conducted by Warwick Braithwaite. Laurance Turner (Violin).
 9.0—"The Second News."
 9.20—"Foreign Affairs." Mr. Vernon Bartlett.
 9.35—Fred Hartley and his Novelty Quintet with Phyllis Evens.
 10.40-12.0 (Daventry)—The B.B.C. Dance Orchestra, directed by Henry Hall.

REGIONAL

For Time Signals, see Monday
 10.15 (11.20 a.m.) (except Midland)—Daventry National Programme.
 12 noon—Organ (S. Gustard).
 12.45 p.m.—Midland Studio Orchestra.
 1.15—A Lunch Hour Concert. The City of Birmingham Orchestra.
 2.0-3.0 (except Scottish)—The Coventry Hippodrome Orchestra.
 2.0 (2.25) (Scottish)—National.

2.30 (Scottish)—Music: Time and Tune.
 3.0 (London)—Gramophone Records.
 3.0 (Scottish)—Records.
 3.5 (West and North)—Darledu I'R Ysgolion Yng Nghymru.
 3.25 (West and North)—Records.
 3.25 (Scottish)—Mid-Week Service.
 3.50 (Scottish)—Daventry National.
 4.5 (ex. Midland)—Daventry.
 5.15—The Children's Hour.
 6.0—"The First News."
 6.30 (London)—The Victor Olof Sextet. Rita Mackay (Mezzo-soprano).
 6.30 (Midland)—"Midland Plays and Pageants." "A mid-season look around."
 6.30 (North)—Cinema Organ (Edward O'Henry).
 6.30 (Scottish)—Cinema Organ (Gerald Shaw).
 6.30 (West)—Records.
 6.45 (Midland)—Margaret Ablethorpe (Pianoforte).
 7.0 (Midland)—The Orchestra from the Band of His Majesty's Royal Marines. Rex Allan on the Neo-Bechstein Pianoforte.
 7.0 (North)—Variety.
 7.0 (Scottish and West)—A Scottish Hour compiled by J. M. Duthie.
 8.0—"Emil and the Detectives." Adapted by Marianne Helweg.
 9.15 (London and Scottish)—Christopher Stone.
 9.15 (Midland)—Frank Cantell (Violin).
 9.15 (North)—"Entr'actes" played by the Studio Orchestra.
 9.15 (West)—"Ar Lannau Teifi." A Feature Programme.
 9.45 (London, North, West)—The London Philharmonic Orchestra, conductor: Sir Thomas Beecham. Symphony in C (Balakirev).
 9.45 (Midland)—"Ring o' Roses." A Jazz Operetta.
 9.45 (Scottish)—"Facets of Syncopation."
 10.30—Mid-Week Service.
 10.45—"The Second News."
 11.0 (except Midland)—Daventry.

EMPIRE SUMMARY

For Wavelengths see S.W. List
Transmission 1 (GSF, GSD) G.M.T.
 8.0 a.m.—Big Ben. Empire News.
 8.15—A Programme of Rhapsodies.†
 9.0—Muriel Wilson (Soprano). Lance Fairfax (Baritone). Esther Fisher (Pianoforte).
 9.45—A Message from The Hon. Sir James Parr, K.C.M.G. (High Commissioner for New Zealand in London). 10.0—Close Down.
Transmission 2 (GSG, GSE)
 12.0 noon—Big Ben. The Rutland Square and New Victoria Orchestra.
 1.0 p.m.—Christopher Stone.
 1.45—Close Down.
Transmission 3 (2-4 p.m. GSE, GSB; 4-6 p.m. GSB, GSA)
 2.0 p.m.—Big Ben. Empire News.
 2.15—London Regional.
 3.0—Evensong, relayed from Westminster Abbey.
 3.45—"Public School Empire Tours." Dr. Montague Rendall, C.M.G.
 4.0—Interlude.
 4.5—Daventry National.
 5.0—Empire News (second reading).
 5.15—Christopher Stone.
 6.0—Close Down.
Transmission 4 (6.15-7.45 p.m. GSD, GSB; 7.45-10.45 p.m. GSB, GSA)
 6.15 p.m.—Big Ben. Empire News.
 6.30—The Victor Olof Sextet. Rita Mackay (Mezzo-Soprano).
 7.30—Hilda Dederich (Pianoforte).
 7.45—"Public Schools Empire Tours."*
 8.0—The B.B.C. Orchestra (Section E). Laurance Turner (Violin).
 9.0—"Looking Backwards."* A Review of the Past Month.
 9.35—Fred Hartley and his Novelty Quintet, with Phyllis Evens.
 10.15—Empire News.
 10.30—Dance Music.†
 10.40—The B.B.C. Dance Orchestra.
 10.45—Close Down.
Transmission 5 (GSC, GSA)
 11.0 p.m.—Big Ben. Fred Hartley and his Novelty Quintet, with Phyllis Evens.
 12 midnight—Talk: "Foreign Affairs." Mr. Vernon Bartlett.*
 12.15 a.m.—Music for Strings.†
 12.45—Empire News. 1.0—Close Down.
 * Electrical Recording.
 † Gramophone Records.

PRINCIPAL EVENTS

CONCERTS
 11.35 a.m. Warsaw: Concert to schools.
 6.0 p.m. Langenberg and German stations: New orchestral dances.
 6.50 ,, Vienna: Bridal and wedding music.
 7.0 ,, Monte Ceneri: Wagner programme.
 7.0 ,, Warsaw: Karlowitz commemoration.
 7.10 ,, Kalundborg: Symphony No. 6 (Beethoven), etc.
 7.30 ,, Oslo: Popular Hungarian music.
 7.35 ,, Sottens: Suisse Romande Orchestra, Prihoda (Violin). Classical programme.
 7.40 ,, Huizen: Choir and organ.
 7.40 ,, Stockholm: Light orchestral.
 7.50 ,, Prague: Orchestral and vocal.
 8.0 ,, Brussels No. 2: Symphony Orchestra.
 8.10 ,, Deutschlandsender: Dances from operas.
 9.0 ,, Vienna: "Pauken Messe" (Haydn).
 9.10 ,, Hilversum: From Concertgebouw, Amsterdam; Conductor, Bruno Walter.
 9.40 ,, Prague: Smetana music for choirs.
OPERAS
 6.30 p.m. Bucharest: Relay from Opera House.
 6.30 ,, Budapest: Relay from Opera House.
 7.50 ,, Turin, etc.: "Boris Godunov" (Mussorgsky) from Genoa.
 8.30 ,, Strasbourg: "Lohengrin" (Wagner) from Metz Theatre.
CHAMBER MUSIC
 10.10 a.m. Hilversum: Quartets (Dvořák, Ravel) (11.25).
 8.0 p.m. Radio Paris: Sonata (Brahms), Octet (Schubert), etc.
 8.10 ,, Beromünster: Old and new Swiss music.
RECITALS
 3.55 p.m. Warsaw: Song and pianoforte (4.20)
 4.20 ,, Deutschlandsender: Violoncello and Pianoforte.
 6.40 ,, Hilversum: Alice Ehlers (Harpichord).
 7.30 ,, Beromünster: Unfamiliar Schubert and Wolf songs.
 9.10 ,, Huizen: Organ.
TALKS
 6.30 p.m. Strasbourg: Verlaine's poems (recitation and song).
 7.0 ,, Beromünster: Literary Talk: "Eichendorff."
DANCE MUSIC
 9.30 p.m. Kalundborg; Warsaw; 10.0, Vienna; 10.10, Brussels No. 1; 10.20, Budapest.

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.
 BERLIN, 5.15—Gym. 5.30—To-day's Motto; Weather. 5.35—Orchestra.
 BEROMÜNSTER, 5.30—Gym.
 BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Records.
 BUDAPEST (No. 1), 5.45—Gym; Records.
 DEUTSCHLANDSENDER, 5.0—Weather; News; Gym. 5.30—Weather; Motto. 5.35—Concert. In an interval, News.
 FRANKFURT, 5.0—Choral: Time. 5.5—Gym. 5.55—Time; Announcements.
 HAMBURG, 5.0—For Farmers. 5.15—Gym. 5.30—Time, Weather. 5.35—Orchestra.
 HEILSBURG, 5.15—Gym. 5.35—Orchestra.
 LANGENBERG, 5.0—Records; Today's Motto. 5.5—Concert. 5.40—Gym.
 LEIPZIG, 5.30—Gym. 5.45—Records.
 MOSCOW (No. 1), 5.15—Announcements. 5.30—Music.
 MUNICH, 5.30—Gym. 5.45—Hymn; Motto; Records.
 PRAGUE (No. 1), 5.15—Gym; Music; News.
 SOTTENS, 5.55—Gym.
 STUTTGART, 5.0—Choral: Time; Weather. 5.5—Gym. 5.55—Time; Announcements.
6 a.m.
 BERLIN, 6.0—News. 6.10—Orchestra.
 BRESLAU, 6.0—Records. 6.15—News. 6.25—Concert.
 BUDAPEST (No. 1), 6.0—Records.
 DEUTSCHLANDSENDER, 6.0—Concert.
 FRANKFURT, 6.5—Weather. 6.10—Records.
 HAMBURG, 6.0—Time; News; Motto. 6.20—Orchestra.
 HEILSBURG, 6.0—News. 6.10 (approx.)—Orchestra.
 KALUNDBORG, 6.0—Gym.
 LAHTI, 6.5—Service in Swedish. 6.30—Service in Finnish.
 LANGENBERG, 6.0—Time; News. 6.5—Records.
 LEIPZIG, 6.0—Records. 6.15—News; Time. 6.25—Orchestra (See Munich).

MOSCOW (No. 1), 6.0—Music.
 MUNICH, 6.15—Time; Weather; News. 6.25—Station Orchestra, conducted by List.
 PARIS (Radio-Paris), 6.45—Gym.
 ROME, 6.45—Gym.
 SOTTENS, 6.0—Gym.
 STOCKHOLM, 6.20—Gym. 6.45—Morning Prayers.
 STUTTGART, 6.5—Weather. 6.10—Records.
 TURIN, 6.45—Gym.
 WARSAW, 6.0—Time; Hymn; Gym. 6.20—Records. 6.35—News; 6.40 Records. 6.55—For Housewives.
7 a.m.
 BARCELONA, 7.15—News; Records.
 BERLIN, 7.0—Gym.
 BRESLAU, 7.0—Concert.
 DEUTSCHLANDSENDER, 7.45—Gym for Women.
 FRANKFURT, 7.0—Records. 7.15 Announcements. 7.25-7.45—Gym.
 HAMBURG, 7.0—Weather; Health Talk. 7.15—Wireless Notes. 7.25 Ice Report.
 HEILSBURG, 7.0—Morning Prayer. 7.30—Gym for Women.
 HILVERSUM, 7.40—Time; Records.
 HUIZEN, 7.40—Records.
 KALUNDBORG, 7.30—Service from the Cathedral.
 LANGENBERG, 7.0—Records. 7.15—Time; Announcements. 7.20—For Women. 7.30—Gym for Women.
 LEIPZIG, 7.0—Orchestra.
 MOSCOW (No. 1), 7.15—For Children.
 MUNICH, 7.0—Station Orchestra.
 PARIS (Poste Parisien), 7.10—Fanfare; Records. In the interval: News; For Housewives.
 PARIS (Radio-Paris), 7.0—Records. 7.15—Weather; News. 7.45—Gym.
 RADIO-NORMANDIE, 7.15—Records. 7.30—News.
 ROME, 7.0—Time; News.
 STUTTGART, 7.0—Records. 7.15—Announcements. 7.25—Gym. 7.45—For Farmers.
 TURIN, 7.0-7.20—Time; Announcements.
 WARSAW, 7.0—Announcements.
8 a.m.
 BARCELONA, 8.0—Chimes; Gym; Records. 8.20—News; Records.

BERLIN, 8.0—See Deutschlandsender. 8.45—For Children.
 BRESLAU, 8.0—For the Housewife. 8.20—Time; News.
 BUDAPEST (No. 1), 8.45—News.
 DEUTSCHLANDSENDER, 8.0—For Schools. 8.40—Reading.
 HEILSBURG, 8.5—For Housewives.
 HILVERSUM, 8.0—Records.
 HUIZEN, 8.0—Records.
 KALUNDBORG, 8.0—Service.
 LEIPZIG, 8.0—For Women. 8.40—Economic Notes. 8.45—Announcements.
 LYONS (La Doua), 8.0—News.
 MADRID (EAJ7), 8.0—News.
 MOSCOW (No. 1), 8.55—Time.
 MUNICH, 8.0—For Housewives.
 PARIS (Radio-Paris), 8.0—Records.
 PRAGUE (No. 1), 8.50—News.
 RADIO-NORMANDIE, 8.0—Records. 8.15—Literary Review. 8.30—Reading.
 TOULOUSE, 8.0—Dance Music. 8.30—News. 8.35—Operetta Music. 8.45—Popular Music.
 VIENNA, 8.20—Exchange; Weather; Tides.
9 a.m.
 BARCELONA, 9.0—In memoriam.
 BERLIN, 9.0—News. 9.10—Exchange. 9.30—Records; Announcements. 9.45—Radio Play.
 BEROMÜNSTER, 9.20—For Schools.
 BRATISLAVA, 9.10—News in Hungarian.
 BRESLAU, 9.0—News. 9.10-9.40—For Schools.
 BUDAPEST (No. 1), 9.0—Topical Talk; Records.
 DEUTSCHLANDSENDER, 9.0—News. 9.10—A Radio Play (Sachse). 9.50—Boxing Lesson.
 FRANKFURT, 9.0—News. 9.45—For Housewives.
 HAMBURG, 9.0—Announcements; Records. 9.50—News.
 HEILSBURG, 9.40—News. 9.55—Weather.
 HILVERSUM, 9.0—Records. 9.40—Time. 9.41—Service. 9.55—Records.
 HUIZEN, 9.0—Records. 9.40—Records. 9.55—Service.
 LANGENBERG, 9.0—Time; News. 9.10—For Schools. 9.30—Variety, with Records. †
 MORAVSKÁ-OSTRAVA, 9.15—Village Band.
 MOSCOW (No. 1), 9.0—News.
 MUNICH, 9.0—For Housewives. 9.15

—Shorthand Lesson. 9.40—For Farmers; Market Prices.
 OSLO, 9.0—Market Prices.
 PRAGUE (No. 1), 9.0—News. 9.5—News in German. 9.10—Records. 9.15—See Moravská-Ostrava.
 STUTTGART, 9.0—News. 9.10—Records.
10 a.m.
 BERLIN, 10.25—Exchange. 10.30—Orchestra.
 BRATISLAVA, 10.0—Tides.
 BRESLAU, 10.25—For Farmers. 10.40—Time; Tides. 10.50—News.
 BUDAPEST (No. 1), 10.0—Records. 10.10—Tides.
 DEUTSCHLANDSENDER, 10.15—Weather. 10.30—Talk: Carnival Customs of the Old Guilds. 10.45—Topical Talk.
 FRANKFURT, 10.0—Concert. 10.40—Announcements.
 HAMBURG, 10.0—For Schools. 10.30—See Heilsberg.
 HEILSBURG, 10.0—Ice Report. 10.30—The Königsberg Opera House Orchestra. Conductor, Brückner.
 HILVERSUM, 1.0—Records. 10.10—Quartet (Dvořák) by the Aeolian Quartet. 10.40—Dressmaking.
 HUIZEN, 10.0—Service (contd. from 9.55 a.m.) 10.25—Records. 10.40—Records.
 KALUNDBORG, 10.0—Weather. 10.10—Fish Market Prices. 10.45—For Schools.
 LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange. 10.45—News. 10.59—Time; Weather.
 LANGENBERG, 10.0—Variety. 10.25—Sponsored Programme; Records.
 LEIPZIG, 10.0—Post Office Propaganda; Records; For Farmers. 10.40—Weather; Snow Report. 10.50—News; Time.
 LYONS (La Doua), 10.30—Concert.
 MOSCOW (No. 1), 10.15—Literary Programme.
 MUNICH, 10.0—Talk: Germany's Forests. 10.20—Time; Weather; News. 10.30—Post Office Propaganda; Records.
 OSLO, 10.15—Service.
 PRAGUE (No. 1), 10.0—Records. 10.5—Orchestra. 10.55—For Farmers.
 RADIO-NORMANDIE: 10.0—Variety.
 STRASBOURG, 10.30—Concert.
 STUTTGART, 10.0—Records. 10.25

—Post Office Propaganda; Concert. 10.55—Weather.
 TURIN, 10.15—Records; Instrumental Music.
 VATICAN CITY, 10.0—Religious Information in French.
 VIENNA, 10.30—Talk. 10.55—Weather.
 WARSAW, 10.40—Press Review. 10.50—Theatre Guide. 10.57—Fanfare from St. Mary's Church, Cracow.
11 a.m.
 BARCELONA, 11.0—Chimes; Weather.
 BARI, 11.30—Quintet.
 BERLIN, 11.0—Orchestra. 11.15—Weather. 11.30—Orchestra.
 BEROMÜNSTER, 11.0—Light Music.
 BRATISLAVA, 11.0—For Farmers. 11.10—News in Slovak. 11.20—Records.
 BRESLAU, 11.0—The Silesian Philharmonic Orchestra, conducted by Friebe.
 BRNO, 11.35—Orchestra.
 BUCHAREST, 11.0—Exchange; Tides; Records.
 BUDAPEST (No. 1), 11.0—Chimes. 11.5—Orchestra. Lili Zela (Pianoforte), Béla Jáko (Songs).
 DEUTSCHLANDSENDER, 11.0—Weather; Greetings. 11.10—Records. 11.55—Time.
 FRANKFURT, 11.0—Brahms Records.
 HAMBURG, 11.0—For Women; Time; Announcements. 11.20—See Heilsberg.
 HILVERSUM, 11.0—Dressmaking (contd. from 10.40 a.m.). 11.25-11.40—Quartet in F (Ravel), by the Aeolian Quartet. 11.55—Orchestra, conducted by Nico Treep.
 HUIZEN, 11.0—Records. 11.10—Religious Address. 11.40—Police Notes. 11.55—Orchestra. Conductor: van 't Woud.
 KALUNDBORG, 11.0—Time; Chimes from the Town Hall. 11.5—The Leonard Gyldeberg String Ensemble, relayed from the Bellevue Strandhotel.
 LAHTI, 11.0—Weather. 11.15—Shipping.
 LANGENBERG, 11.0—Records. 11.45—News.
 LEIPZIG, 11.0—See Breslau.
 LYONS (La Doua), 11.0—Concert.
 MADRID (EAJ7), 11.45—Announcements.

THURSDAY Feb. 8

11 a.m. (contd.)

MONTE CENERI, 11.0—News. 11.10 (approx.)—Orchestra. 11.29—Time Signal. Weather. 11.31—Orchestra. 11.35—News.
MUNICH, 11.0—See Breslau.
OSLO, 11.10—Exchange. 11.55—Time Signal.
PRAGUE (No. 1), 11.0—Time. 11.1—For Farmers. 11.10—Records. 11.25—News. 11.35—Orchestra.
RADIO-NORMANDIE, 11.0—Records.
REYKJAVIK, 11.0—Weather.
ROME, 11.30—Records.
SOTTENS, 11.28—Time; News; Weather. 11.40—Variety.
STOCKHOLM, 11.30—Weather; Ice Report. 11.45—Exchange. 11.55—Time.
STUTTGART, 11.0—Records.
TURIN, 11.0—Records. 11.30—Records. 11.45—News.
VIENNA, 11.0—The "Wiener Symphoniker," conducted by Holzer.
WARSAW, 11.5—Dance Records. 11.30—Weather. 11.35—Philharmonic Concert to Schools, conductor, Wolfstal. Irène Dubiska (Violin), Michalowski (Bass).

12 noon

ALGIERS, 12.30—Records.
BARCELONA, 12.0—For Women. 12.30—Letter Box. 12.45—Records.
BERLIN, 12.0—Records; Extracts. "Fra Diavolo" (Auber). 12.20—Light Music.
BEROMÜNSTER, 12.0—Light Music. 12.20—Time; Weather; Exchange. 12.25—For Housewives.
BRATISLAVA, 12.45—News in German and Hungarian.
BRESLAU, 12.0—Orchestra (contd. from 11.0). 12.15—News. 12.25—New Records.
BRNO, 12.0—Orchestra (contd. from 11.35).
BRUSSELS (No. 1), 12.0—The Station Orchestra, conducted by Leemans.
BRUSSELS (No. 2), 12.0—Records: Mozart Music.
BUCHAREST, 12.0—News. 12.15—Records.
BUDAPEST (No. 1), 12.0—Orchestra. 12.30—Records.
DEUTSCHLANDSENDER, 12.45—News.
FRANKFURT, 12.0—Brahms Records. 12.15—Time; News; Announcements. 12.35—See Stuttgart.
HAMBURG, 12.0—Exchange. 12.10—Weather. 12.20—Musical Programme.
HEILSBURG, 12.1—Time; Weather. 12.5—Records. 12.20—News. 12.30—Records.
HILVERSUM, 12.0—Orchestra (contd. from 11.55).
HUIZEN, 12.0—Orchestra (contd. from 11.55).
JUAN-LES-PINS (Radio Côte d'Azur), 12.30—Amusement Guide; Variety.
KALUNDBORG, 12.0—String Ensemble (contd. from 11.5).
LANGENBERG, 12.0—The "Fröhliche Fünf"; Choirs and Soloists. 12.45—News.
LEIPZIG, 12.0—See Breslau. 12.15—News; Time. 12.25—Records.
LYONS (La Doua), 12.30—Musical Programme. In the interval, News and Exchange.
MADRID (EAJ7), 12.0—Chimes; Exchange; Announcements. 12.15—Time.
MONTE CENERI, 12.0—News (contd. from 11.55). 12.5—Records. 12.20—Reading. 12.30—Show Report; Records.
MUNICH, 12.0—Orchestra. 12.15—Time; Weather; News. 12.25—Records.
OSLO, 12.0—Records. In the Intervals, Weather; For Farmers; Exchange.
PARIS (Eiffel Tower), 12.30—Concert.
PARIS (Poste Parisien), 12.0—Exchange. 12.5—Records. 12.20—News. 12.30—Concert.
PARIS (Radio-Paris), 12.0—Sacred Music. 12.30—Orchestral Concert in the Interval: Exchange; News; Weather.
PRAGUE (No. 1), 12.6—See 11.35 a.m. Brno. 12.35—Labour Market Report. 12.45—Records. 12.55—Exchange; Weather.
ROME, 12.5—Humorous Programme. 12.10—See Turin. In the Intervals: News; Exchange; Time; Announcements.
SOTTENS, 12.0—Exchange; 12.5—Records.
STRASBOURG, 12.0—Records. 12.45—News.
STUTTGART, 12.0—Records. 12.15—Time; News. 12.25—Local News; Weather. 12.35—The Philharmonic Orchestra. Conductor: Hälszig.

TOULOUSE, 12 noon—Orchestra. Ballet Music, "Rosamunde" (Schubert). Norwegian Dance (Grieg). Andante (Bach). Hungarian Dance (Brahms). 12.15—Opera Music. 12.30—News. 12.45—Request Music.
TURIN, 12.0—Time; Announcements. 12.5—Humorous Talk. 12.10—Light Music. 12.30—Records; Exchange. 12.45—Light Music.
VIENNA, 12.0—Time; News. 12.10—The "Wiener Symphoniker"
WARSAW, 12.0—Philharmonic Orchestra (contd. from 11.35 a.m.).

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.5—Records.
ATHLONE, 1.30—Time; Weather; Stock Report; Records.
BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records.
BERLIN, 1.0—Light Music. 1.15—News. 1.35—Liszt Records.
BRATISLAVA, 1.5—Market Prices.
BRESLAU, 1.0—News. 1.10—Time; Weather. 1.15—Post Office Propaganda; Records. 1.50—Exchange; Market Prices.
BRNO, 1.5—Labour Market Report in German.
BRUSSELS (No. 1), 1.0—News. 1.10—Records.
BRUSSELS (No. 2), 1.0—News. 1.10—Ketelbey Concert. Overture, Chal romano. In a Persian Market. Bells across the Meadows. In a Monastery Garden. In a Chinese Temple Garden. The Clock and the Dresden Figures.
DEUTSCHLANDSENDER, 1.0—Records.
FRANKFURT, 1.0—See 12.35 Stuttgart. 1.40—Hansel and Gretel.
HAMBURG, 1.0—Music. 1.15—News. 1.35—Records.
HEILSBURG, 1.0—Records.
HILVERSUM, 1.0—Orchestra. Records in the Intervals.
HUIZEN, 1.0—Orchestra (contd. from 11.55 a.m.). 1.40—Handicrafts.
JUAN-LES-PINS (Radio Côte d'Azur), 1.0—News. 1.15—"Visite de Riquette"—Sketch (Poletti).
KALUNDBORG, 1.45—Louis Preil's Instrumental Ensemble.
LANGENBERG, 1.0—Concert. Fassbender (Violin), Busbach (Viola), Rummel (Pianoforte), Jansen (Accordion) and the "Fröhliche Fünf."
LEIPZIG, 1.0—News. 1.15—Film Review. 1.25—Reading. 1.35—Topical Talk. 1.40—Records; Sound Film and Operetta Music.
MUNICH, 1.0—Time; Weather; News. 1.20—Mozart Quartet Concert.
PARIS (Eiffel Tower), 1.0—Exchange. 1.15—News. 1.30—For Farmers. 1.45—Labour Market.
PARIS (Poste Parisien), 1.5—Exchange. 1.10—Variety. 1.35—Records. Selection, "Manon" (Massenet), "Madame Butterfly" (Puccini), "Louise" (Charpentier).
PRAGUE (No. 1), 1.0—Exchange in German.
PRAGUE (No. 2), 1.30—Records. 1.45—Legal Talk.
REYKJAVIK, 1.15—Variety.
ROME, 1.0—See Turin.
STRASBOURG, 1.0—Time; Exchange. 1.5—Records.
STUTTGART, 1.40—Talk.
TOULOUSE, 1.0—Amusement Guide. 1.5—Cabaret. 1.15—Viennese Orchestra. 1.30—Sound Film Songs. 1.45—Military Music.
TURIN, 1.0—Light Music. 1.15—Exchange.
WARSAW, 1.0—News.

2 p.m.

BARCELONA, 2.0—Announcements. 2.5 (approx.)—Sextet.
BERLIN, 2.0—Exchange. 2.35—Talk: Emil Rosenow and Hermann Essig.
BEROMÜNSTER, 2.30—Records. 2.59—Time.
BRESLAU, 2.0—Prices. 2.10—Review of Swedish and German Books. 2.30—Gym. for Children.
BRNO, 2.40—Talk: Contemporary Yugoslav Literature.
DEUTSCHLANDSENDER, 2.0—Weather, Exchange. 2.15—For Children. 2.45—Fritz Woike recites his own Poems.
FRANKFURT, 2.0—Fairly Play (contd. from 1.40 p.m.). 2.30—Weather, Time, Economic Notes.
HAMBURG, 2.0—Exchange. 2.40—Announcements. 2.50—Ice Report.
HEILSBURG, 2.0—Exchange. 2.15—Book Review. 2.30—Talk: The Choice of a Profession.
HILVERSUM, 2.0—Orchestra (contd.). 2.10—Yeen Jr. (Violin), Veen, Sr. (Pianoforte). Sonata in G (Brahms). Lento ma non troppo (R. Strauss). Waltz (Field-Burmester). 2.40—Dressmaking.
HUIZEN, 2.0—Handicrafts (contd. from 1.40 p.m.). 2.40—For Women.

KALUNDBORG, 2.0—Instrumental Ensemble (contd. from 1.45 p.m.).
LANGENBERG, 2.0—Variations and Fugue for Two Pianofortes (van den Berg). 2.30—Economic Notes. 2.50—Topical Talk.
LEIPZIG, 2.0—Sound Film Records. 2.20—For Children. 2.40—Economic Notes.
LYONS (La Doua), 2.0—Report from the Municipal Swimming Pool.
MADRID (EAJ7), 2.0—Chimes, Time, Weather, Theatre Notes. 2.15 (approx.)—Concert.
MOSCOW, 2.15—For Children.
MUNICH, 2.5—Felix Dahn Programme. 2.30—Talk: Kant's Mother. 2.50—Weather, For Farmers.
PARIS (Eiffel Tower), 2.0—Exchange. 2.15—Economic Notes. 2.30—Exchange, Art Notes. 2.45—Theatre Review, Talk on Teetotalism Aviation Notes.
PARIS (Poste Parisien), 2.0—Exchange.
PRAGUE (No. 1), 2.55—Exchange. PRAGUE (No. 2), 2.0—Records. 2.10—German Transmission, Reading, Records. 2.45—News in German.
SOTTENS, 2.58—Time.
STRASBOURG, 2.0—For Children.
STUTTGART, 2.0—For Children.
TOULOUSE, 2.0—News, Exchange.
VIENNA, 2.15—Time, Announcements. 2.35—Tales of the Danube.
WARSAW, 2.25—News. 2.30—Exchange. 2.40—Orchestra.

3 p.m.

BARCELONA, 3.0—For Invalids.
BARI, 3.30—For Men.
BERLIN, 3.0—See Heilsberg.
BEROMÜNSTER, 3.0—See Sottens.
BRATISLAVA, 3.0—Orchestra. Conductor: Dyk. Ibl (Violin). Violin Concerto in A (Mozart). Slav Rhapsody in A flat (Dvořák).
BRESLAU, 3.0—Station Orchestra, conducted by Rischka. Hans Rothensee (Baritone).
BUCHAREST, 3.15—For Children.
BUDAPEST (No. 1), 3.0—For Children.
DEUTSCHLANDSENDER, 3.0—See Breslau.
FRANKFURT, 3.0—See Breslau.
HAMBURG, 3.0—See Heilsberg.
HEILSBURG, 3.0—"East Prussia"—Radio Report.
HILVERSUM, 3.0—Dressmaking (contd. from 2.40 p.m.). 3.40—For Hospitals.
HUIZEN, 3.0-3.10—For Women. 3.40—Bible Reading; Sacred Music.
KALUNDBORG, 3.0—Instrumental Ensemble (contd. from 1.45 p.m.). 3.45—For Boys.
KAUNAS, 3.0—Veterinary Talk. 3.20—Orchestra. 3.50—Talk: Meteorology.
LANGENBERG, 3.0—Music for Children. 3.45—Talk: Wit and Humour in Old Street Names.
LEIPZIG, 3.0—See Breslau.
LYONS (La Doua), 3.30—For Invalids. 3.45—Concert.
MADRID (EAJ7), 3.0—Concert. 3.40—News; Book Review. 3.50—News.
MONTE CENERI, 3.0—See Sottens.
MOSCOW (No. 1), 3.55—Time.
MUNICH, 3.0—See Breslau.
PARIS (Eiffel Tower), 3.0—See Strasbourg. In an Interval—Exchange.
PARIS (Poste Parisien), 3.45—Exchange.
PARIS (Radio-Paris), 3.45—Exchange.
PRAGUE (No. 1), 3.0—See Bratislava. 3.50—For Children.
RADIO-NORMANDIE, 3.30—Variety.
ROME, 3.30—Children's Radio Review. 3.50—News.
SOTTENS, 3.0—Orchestra. 3.45—Records.
STRASBOURG, 3.0—Orchestra, conducted by Maurice de Villers.
STUTTGART, 3.0—See Breslau.
TRIESTE, 3.45—Balilla Programme. TURIN, 3.35—News. 3.45—For Children.
VIENNA, 3.0—Talk: In the Gold Fields of India. 3.25—Talk: Fritz Witt and his Sacred Music. 3.50—Song, Violin and Pianoforte Recital by Hilde Kretschmayr, Henriette Ruynen-Dubois and Marion Ruynen. Duet in A for Violin and Pianoforte (Schubert). Variations on a Theme of Corelli (Tartini-Kreisler). Seven Songs (Regter): (a) Aus dem Himmelsaugen, (b) Das Dorf, (c) Mädchenlied, (d) Abendfrieden, (e) Ach Liebster, (f) Lied eines Mädchens, (g) Waldeinsamkeit.
WARSAW, 3.40—For Women. 3.55—Song Recital.

4 p.m.

BARCELONA, 4.0—News; Educational Programme.
BERLIN, 4.0—See Heilsberg.
BEROMÜNSTER, 4.0—See Sottens.
BRATISLAVA, 4.15—Talk. 4.25—Suite bergamasque (Debussy), by Vilem Pistelak (Pianoforte).
BRESLAU, 4.0—Orchestra (contd.

from 3.0 p.m.). 4.30—Talk. 4.50—Recital of New Songs by Alfred Stöckel (Tenor).
BRNO, 4.15—For Children. 2.5—Song Recital.
BUCHAREST, 4.0—The Dinico Orchestra.
BUDAPEST (No. 1), 4.0—Programme for Farmers. 4.30—Orchestra, conducted by Friedl.
DEUTSCHLANDSENDER, 4.0—For Women. 4.20—Cello and Pianoforte Recital by Steiner and Hilma Steiner-Hohfeld.
FRANKFURT, 4.0—See 3.0 p.m. Breslau. 4.45—Talk: Leisure and Boredom.
HAMBURG, 4.0—See 3.0 p.m. Heilsberg.
HEILSBURG, 4.0—Radio Sequence (contd. from 3.0).
HILVERSUM, 4.0—For Hospitals (contd. from 3.40 p.m.). 4.10—Records. 4.40—Play for Children.
HUIZEN, 4.0—Bible Reading and Sacred Music (contd. from 3.40 p.m.).
KALUNDBORG, 4.0—For Boys. 4.30—Exchange; Fish Market. Prices. 4.43—Poem. 4.45—Talk.
KAUNAS, 4.0—Meteorology (contd. from 3.50 p.m.). 4.10—Legal Talk. 4.30—Song Recital. 4.50—Talk: Astronomy.
LAHTI, 4.0—Station Orchestra, conducted by Linko. 4.50—News in Finnish. 4.59—Time; Weather.
LANGENBERG, 4.0—Military Band.
LEIPZIG, 4.0—See 3.0 Breslau.
LYONS (La Doua), 4.0—Concert. 4.30—For Children.
MONTE CENERI, 4.0—Records. 4.15—See Sottens.
MOSCOW, 4.0—News. 4.30—Communist Party Programme.
MUNICH, 4.0—See 3.0 p.m. Breslau. 4.50—"The Tree and its By-Products"—Radio Sequence.
OSLO, 4.0—Concert.
PALERMO, 4.30—Records.
PARIS (Eiffel Tower), 4.0—See 3.0 p.m. Strasbourg. 4.15—Exchange.
PARIS (Poste Parisien), 4.50—Exchange.
PRAGUE (No. 1), 4.0—For Children. 4.15—History Talk. 4.25—Violin Recital. 4.45—French Lesson.
REYKJAVIK, 4.0—Weather.
ROME, 4.0—Concert. Giovanni Dentone (Violin), Carlo Brunetti (Pianoforte) and Margherita Cossa (Soprano). Sonatina (Davico). Songs (Schubert): (a) Die Liebe hat gelogen, (b) Die junge Nonne, (c) Sei mir gegrüßt, (d) Der Zwerg. Violin Solos: (a) Ave Maria (Schubert-Wilhelmy), (b) Sonatina (Paganini). Soprano Solos: (a) Giorno per giorno (Alfano), (b) Il giro tondo dei golosi (Castelnuovo-Tedesco). 4.55—Weather.
SOTTENS, 4.0—Records. 4.15—Orchestra.
STOCKHOLM, 4.0—Weather. 4.5—Service. 4.30—For Children. 4.45—Light Music by the Wertheimer Viennese Orchestra.
STRASBOURG, 4.15—For Children, relayed from Bordeaux-Lafayette.
STUTTGART, 4.0—See 3.0 p.m. Breslau. 4.30—Records: Folk Music. 4.45—Dialogue. The Taxi-Driver.
TOULOUSE, 4.15—News; Exchange.
TRIESTE, 4.0—Balilla Programme.
TURIN, 4.0—For Children (contd. from 3.45 p.m.). 4.10—Dance Music. 4.55—Weather.
VIENNA, 4.40—Talk.
WARSAW, 4.0—Songs. 4.20—Pianoforte Recital. Barcarolle (Schubert). Poem (Scriabin). Toccata (Ravel). Two Studies (Bereza). Piece (Maliszewski). Triana (Albeniz). 4.50—For Children.

5 p.m.

BERLIN, 5.0—"Family Life"—Radio Scenes. 5.30—Programme Announcements. 5.35—Topical Talk. 5.50—Announcement.
BEROMÜNSTER, 5.0—Records. 5.30—Readings; Recitations.
BRATISLAVA, 5.0—Telegraphy Lesson. 5.15—Hungarian Transmission.
BRESLAU, 5.0—Song Recital (continued from 4.50 p.m.). 5.10—Market Prices. 5.15 (approx.)—Talk: The Leader of the "Stahlhelm" in the Great War. 5.20—Talk: Names for Boys. 5.30—Interviews with Office Workers and Shop Assistants. 5.50—Programme Announcements; Weather.
BRNO, 5.0—Theatre and Film Review. 5.15—Records. 5.25—German Transmission: "May I go up with you, Mr. Andersgast?"—Sketch (Rössler).
BRUSSELS (No. 1), 5.0—Orchestra, conducted by Meulemans. 5.30—Dramatic Programme.
BRUSSELS (No. 2), 5.0—Records: Mendelssohn Music. 5.45—For Children.
BUCHAREST, 5.0—News. 5.15—Orchestra. 5.50—Educational Talk.
BUDAPEST (No. 1), 5.40—Reading.

DEUTSCHLANDSENDER, 5.0—Poems. 5.5—Topical Talk. 5.20—Programme for the Seventh Centenary of the Village of Starckow.
FRANKFURT, 5.0—Talk. 5.25—See Stuttgart. 5.45—News; Time.
HAMBURG, 5.0—Records; Wireless Review. 5.25—Talk: German Naval Heroes. 5.45—Exchange. 5.50—Weather.
HEILSBURG, 5.0—Talk: Felix Dahn. 5.15—Exchange; Ice Report. 5.25 For Farmers. 5.50—Weather.
HILVERSUM, 5.0—Play for Children (continued from 4.40 p.m.). 5.10—Orchestra, conducted by Nico Treep.
HUIZEN, 5.0—Bible Reading and Sacred Music (continued from 3.40 p.m.). 5.10—G. Beths (Violin), Leidner (Viola), and Halsema (Pianoforte).
KALUNDBORG, 5.0—Talk. English Lesson. 5.45—Weather.
KAUNAS, 5.0—Astronomy (continued from 4.50 p.m.). 5.10—Orchestra. 5.40—News.
LAHTI, 5.0—Weather. 5.10—News in Swedish. 5.15—Talk. 5.40—Songs. Plaisir d'amour (Martini). Arias, "Don Pasquale" (Donizetti), "Don Carlos" (Verdi), "Rigoletto" (Verdi).
LANGENBERG, 5.0—Talk: Carnivals. 5.25—Talk: Steam Gas, and Coal. 5.45—Economic Notes.
LEIPZIG, 5.0—See Breslau. 5.10—Radio Report: A Peasant's Spinning Room. 5.30—Talk: Hans Watzlik. 5.45—Economic Notes.
LYONS (La Doua), 5.30—Concert.
MORAVSKA-OSTRAVA, 5.0—Talk on Art. 5.10—Records. 5.20—Literary Talk. 5.30—German Transmission: Talk: Ghandi's Life and Ideals; Music Talk.
MOSCOW, 5.0—Communist Party Programme. 5.30—For Collective Farm Workers.
MUNICH, 5.0—Radio Sequence (contd. from 4.50 p.m.). 5.45—Time; Weather; For Farmers.
OSLO, 5.0—German Lesson. 5.30—Service.
PALERMO, 5.0-5.30—For Children.
PARIS (Eiffel Tower), 5.45—News.
PRAGUE (No. 1), 5.0—German Transmission: Talk with Songs. Book Review; For Farmers.
PRAGUE (No. 2), 5.30—Talk: Economics.
RADIO-NORMANDIE, 5.30—Dance Music.
ROME, 5.0—Wheat Market Report: Tourist Report. 5.25—Reading. 5.45—Shipping; Sports Notes. 5.50—Dopolavoro Notes.
SOTTENS, 5.0—Lesson for Farmers. 5.30—Talk. 5.55—Theatre Review.
STOCKHOLM, 5.0—Light Music. 5.45—English Lesson.
STUTTGART, 5.0—Talk: Gardening in Winter. 5.25—Spanish Lesson. 5.45—Time; Weather; For Farmers.
TURIN, 5.0—For Farmers; Market Prices. 5.10—Snow Report. 5.15—Dopolavoro Announcements.
VIENNA, 5.5—Talk on Research. 5.30—Theatre Review. 5.40—Pianoforte Recital by Julius Isserlis. Impromptu in B flat (Schubert). Ballad in A flat (Chopin). Two Mazurkas (Chopin). Réflexions dans l'eau (Debussy). Poissons d'or (Debussy). March (Prokofiev). Prelude (Prokofiev). Märchen (Isserlis). Islanyé (Balakirev).
WARSAW, 5.0—Talk from Katowice: Upper Silesia and Gdynia. 5.20—Dramatic Programme.

6 p.m.

ALGIERS, 6.0—For Children. 6.30—News. 6.45—Hawaiian Guitar Music.
ATHLONE, 6.0—For Children. 6.45—News.
BARCELONA, 6.0—Trio Concert. 6.30—News.
BERLIN, 6.0—See Langenberg.
BEROMÜNSTER, 6.0—Time; Weather; Traffic Report. 6.5—League of Nations Report. 6.25—Orchestra.
BRATISLAVA, 6.5—Talk.
BRESLAU, 6.0—See Langenberg.
BRNO, 6.20—Records. 6.55—Märchenbilder Op. 113 (Schumann), by Jaroslav Gotthard (Viola).
BRUSSELS (No. 1), 6.0—Talk on Social Hygiene. 6.15—Records. 6.30—The Station Orchestra, conducted by Leemans.
BRUSSELS (No. 2), 6.0—For Children. 6.20—Mgr. Craynsberghs, Talk.
BUCHAREST, 6.0—Educational Talk (contd. from 5.50 p.m.). 6.10—Talk. 6.30—Opera from the Romanian Opera House. In the Interval: Reading. After the Opera: News.
BUDAPEST (No. 1), 6.10—Review of Foreign Politics. 6.30—Relay from the Royal Opera House.
DEUTSCHLANDSENDER, 6.0—See Langenberg.
FRANKFURT, 6.0—See Langenberg.
HAMBURG, 6.0—See Langenberg.

THURSDAY Feb. 8

6 p.m. (contd.)

HEILSBURG, 6.0—See Langenberg.
 HILVERSUM, 6.0—Orchestra (contd. from 5.10 p.m.). 6.10—Sports Talk. 6.40—Alice Ehlers (Harpischord). Italian Concerto (Bach). The Fight between David and Goliath (Kuhnau).
 HUIZEN, 6.0—Violin, Viola and Pianoforte (contd. from 5.10 p.m.). 6.25—Talk. 6.40—Police Notes. 6.55—Religious Notes.
 KALUNDBORG, 6.0—News; Time. 6.16—Talk. 6.45—Danish Lesson.
 KAUNAS, 6.0—Announcements. 6.30—Balalaika Orchestra.
 LAHTI, 6.0—Songs (contd. from 5.40 p.m.). 6.5—Talk. 6.25—Beethoven Recital. 6.55—Play (Eugene O'Neill).
 LANGENBERG, 6.0—Transmission for all German Stations: New Orchestral Dance Music, conducted by Eysoldt.
 LEIPZIG, 6.0—See Langenberg.
 LYONS (La Doua), 6.0—Concert. 6.15—News from Paris.
 MONTE CENERI, 6.15—News; Records of Minuets and Gavottes. 6.45—News.
 MORAVSKA-OSTRAVA, 6.30—Village Band.
 MOSCOW (No. 1), 6.0—For Collective Farm Workers.
 MUNICH, 6.0—See Langenberg.
 OSLO, 6.0—Announcements. 6.15—News. 6.30—Recitation.
 PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Theatre Review. 6.45—Topical Programme.
 PARIS (Poste Parisien), 6.45—Exchange. 6.48—Records. The Cuckoo (Daquin). Bourree d'Auvergne. Fantasia in C minor (Bach).
 PARIS (Radio-Paris), 6.20—Weather; For Farmers; Exchange; Racing Results. 6.45—Legal Talk.
 PRAGUE (No. 1), 6.0—Time; News in German. 6.5—Appeal by the Red Cross Society. 6.10—News. 6.20—For Farmers. 6.30—Orchestra.
 PRAGUE (No. 2), 6.0—Time; For Housewives. 6.5—Records. 6.30—Talk.
 RADIO - NORMANDIE, 6.30—Talk on Science. 6.45—Local News.
 ROME, 6.0—News in Foreign Languages. 6.30—Records. 6.50—News.
 SOTTENS, 6.0—Theatre Review. 6.20—Letter-Box. 6.30—Talk. The Pruning of Vines. 6.59—Weather.
 STOCKHOLM, 6.0—English Lesson. 6.15—Weather; News. 6.30—Radio Report.
 STRASBOURG, 6.0—Talk on Finland. 6.15—For Women. 6.30—Vernaine Programme: Songs and Recitations.
 STUTTGART, 6.0—See Langenberg.
 TOULOUSE, 6.0—News. 6.15—Orchestra. 6.30—For Children.
 TURIN, 6.0—Time; News in Foreign Languages. 6.30—Records. 6.50—Announcements; News; Weather; Records.
 VIENNA, 6.0—Pianoforte Recital (contd. from 5.40 p.m.). 6.25—Time; Announcements. 6.35—Topical Talk. 6.50—Wedding Music by the "Wiener Symphoniker," conducted by Schönherr. Hedy Renda (Soprano). Overture, "Die Hochzeit des Camacho" (Mendelssohn). Moorish Bridal Procession (Cassard). Aria from "Der Freischütz" (Weber). Hochzeitssänge (Jos. Strauss). Marionetten-Bräutigam (Rathke). Overture, "Hugedietrichs Brautfahrt" (O. Strauss). Wedding Music, "A Midsummer Night's Dream" (Mendelssohn). Soprano: Vorabend (Cornelius). Soprano Aria, "Der Freischütz" (Weber). Selection, "Lohengrin" (Wagner). Overture, "Figaro" (Mozart). Brautraub (Grieg). Ingrid's Lament (Grieg). March from "A Wedding Day on Trondheim" (Grieg). Scene from "Die Vögel" (Braunfels). Soprano Song, "The Gipsy Baron" (Joh. Strauss). Hochzeitssatz in Liliput (Strassateur). Waltz, Myrthensträusschen (E. Strauss). Polka, Flitterwochen (Weinberger).
 WARSAW, 6.0—Announcements. 6.25 Topical Talk. 6.40—Sports Notes. 6.47—News.

7 p.m.

ALGIERS, 7.0—Exchange. 7.10—Shipping Notes. 7.15—Weather. 7.20—Variety Items. 7.30—Lottery Results. 7.40—For Women. 7.55—News.
 ATHLONE, 7.0—French Lesson. 7.15—Talk. 7.30—Station Orchestra.
 BARCELONA, 7.0—Request Records. 7.30—Exchange; Records.

BARI, 7.0—News in Albanian.
 BERLIN, 7.0—News. 7.10—Variety—Orchestra, Dance Band, Banjo Ensemble, and Soloists.
 BEROMÜNSTER, 7.0—Literary Talk: Eichendorff. 7.30—Unfamiliar Schubert and Wolf Lieder Recital.
 BRESLAU, 7.0—News. 7.10—See Munich. 7.30—Variety from Berlin.
 BRUSSELS (No. 1), 7.0—Orchestra (contd. from 6.30 p.m.). 7.15—Labour Market Report. 7.30—Sports Review; Colonial Report.
 BRUSSELS (No. 2), 7.12—Catholic Report. 7.15—Religious Address. 7.30—News.
 BUCHAREST, 7.0—Opera (contd. from 6.30 p.m.).
 BUDAPEST (No. 1), 7.0—Opera Relay.
 DEUTSCHLANDSENDER, 7.0—Motto; Weather; Announcements. 7.10—A Radio Sequence.
 FRANKFURT, 7.0—Topical Talk. 7.10—"Carnival Eve in a German Wine Vault": Humorous Radio Report.
 HAMBURG, 7.0—News. 7.10—See Berlin.
 HEILSBURG, 7.0—News. 7.10—See Berlin.
 HILVERSUM, 7.0—Harpischord Recital (contd. from 6.40 p.m.). 7.10—English Lesson. 7.40—Time; News. 7.45—First Act, "Countess Maritza" (Kálmán), from the Carré Theatre, Amsterdam.
 HUIZEN, 7.0—Religious Notes. 7.10—Press Review. 7.40—Choir conducted by Couvée, with Bouwmeester (Organ).
 KALUNDBORG, 7.0—Danish Lesson. 7.10—Symphony Concert, conducted by Hans Weisbach. The "Pastoral" (Beethoven), etc.
 KAUNAS, 7.0—Travelogue. 7.20—Humorous Programme. 7.50—Talk.
 LAHTI, 7.0—Play. 7.25—Records. 7.45—News in Finnish.
 LANGENBERG, 7.0—News. 7.10—Orchestra and Choir, conducted by Breuer.
 LEIPZIG, 7.0—To-day's News. 7.10—See Munich. 7.30—Variety, from Berlin. In the interval, News and Time.
 LYONS (La Doua), 7.0—News. 7.30—Light Music. 7.40—Local News.
 MADRID (EAJ7), 7.0—Chimes; Exchange; Announcements; For Children.
 MONTE CENERI, 7.0—Wagner Programme by Lotte Burck (Soprano), with the Station Orchestra.
 MORAVSKA - OSTRAVA, 7.0—Village Band.
 MUNICH, 7.0—News. 7.10—"Austria" 7.30—See 7.10 Berlin.
 OSLO, 7.0—Time. 7.1—For Farmers. 7.30—Hungarian Music by a Cigány Band, and Josef Szerenyi (Songs).
 PALERMO, 7.45—Symphony Orchestra, conducted by La Rosa Parodi. In the interval, Talk.
 PARIS (Eiffel Tower), 7.0—Topical Programme. 7.15—Weather; News. 7.30—Schubert Records.
 PARIS (Poste Parisien), 7.0—Records (contd. from 6.48 p.m.). 7.15—Talk; News. 7.30—For Children.
 PARIS (Radio-Paris), 7.0—Topical Talk. 7.30—Talk. 7.50—German Press Review; News.
 PRAGUE (No. 1), 7.0—Band Concert. 7.10—Medical Talk. 7.25—Talk with Illustrations: Ukrainian Poets. 7.50—Station Orchestra conducted by Jeremias Zitek (Bass).
 RADIO - NORMANDIE, 7.0—Request Programme.
 ROME, 7.0—Time; Announcements; Records. 7.30—Government Announcements. 7.40—Orchestra. Cloe Elmo (Soprano); Malipiero (Tenor). Le Carnaval des Animaux (Saint-Saëns). Extract, "Tosca" (Puccini). Carnival Overture (Glazunov). Dance Music. In the Interval: Literary and Art Notes; News.
 SOTTENS, 7.0—Variety. 7.20—Talk on the following Concert. 7.35—Orchestra, conducted by Luc Balmer. Prihoda (Violin). Chaconne and Pavane (Purcell). Adagio and Fugue in G minor for Violin (Bach). Ritmica funebre (Vogel). Ritmica scherzosa (Vogel). Violin Concerto (Paganini). Ballet, "Prometheus" (Beethoven). In the Interval: News; Weather.
 STOCKHOLM, 7.0—Radio Report. 7.10—Talk: Robespierre. 7.40—Orchestra, conducted by Greவில்lius.
 STRASBOURG, 7.0—Vernaine Programme (contd. from 6.30 p.m.). 7.30—Time and News. 7.45—Talk on Ski-ing.
 STUTTGART, 7.0—See Frankfurt.
 TOULOUSE, 7.0—Orchestra. 7.15—News; Exchange. 7.30—Cello Recital.
 TURIN, 7.0—Records; Notices: 7.50—"Boris Godunov" Opera (Mussorgsky), relayed from Genoa. In the Interval: Talk; News.

VATICAN CITY, 7.0—Religious Information in Italian.
 VIENNA, 7.0—Wedding Music (contd. from 6.50 p.m.).
 WARSAW, 7.0—Karlowitz Memorial Concert by the Station Orchestra, conducted by Mazurkiewicz. Eugenie Uminka (Violin).

8 p.m.

ALGIERS, 8.0—Time. 8.2—Talk. 8.15—News. 8.20—"Le cultivateur de Chicago"—Comedy in Two Acts (Gabriel Timmeray).
 ATHLONE, 8.0—Talk: Mozart. 8.25—J. Butler (Baritone); 8.35—Station Orchestra. 8.50—Betty Byrne (Contralto).
 BARCELONA, 8.0—Records. 8.15—Talk in Catalan. 8.30—Educational Programme. 8.45—News.
 BERLIN, 8.0—Talk. 8.15—Variety (contd. from 7.10 p.m.).
 BEROMÜNSTER, 8.0—Weather; News. 8.10—Quartet: Old and New Swiss Chamber Music.
 BRESLAU, 8.0—See Berlin.
 BRNO, 8.30—Two Sketches.
 BRUSSELS (No. 1), 8.0—Request Records. 8.15—Lespagnard (Bari-tone). 8.30—Records.
 BRUSSELS (No. 2), 8.0—Symphony "Orchestra". 8.45—Reading from "Mother" (Maxim Gorki).
 BUCHAREST, 8.0—Opera (contd. from 6.30 p.m.).
 BUDAPEST (No. 1), 8.0—Opera Relay.
 DEUTSCHLANDSENDER, 8.0—A Radio Sequence. 8.10—Opera Dances. The Station Orchestra, conducted by Sonntag.
 FRANKFURT, 8.0—See Stuttgart.
 HAMBURG, 8.0—See Berlin.
 HEILSBURG, 8.0—See Berlin.
 HILVERSUM, 8.0—First Act of "Countess Maritza" (contd. from 7.45 p.m.).
 HUIZEN, 8.0—Choir and Organ (contd. from 7.40 p.m.). 8.40—Talk.
 JUAN - LES - PINS (Radio Côte d'Azur), 8.0—Amusement Guide; Exchange. 8.10—Fashion Review. 8.20—Concert.
 KALUNDBORG, 8.0—Symphony Concert (contd. from 7.10 p.m.).
 KAUNAS, 8.0—Forestry (contd. from 7.50 p.m.). 8.10—Sports Notes. 8.20—Song Recital. 8.40—Talk in Esperanto.
 LAHTI, 8.0—News in Swedish.
 LANGENBERG, 8.0—Orchestra and Choir (contd. from 7.10 p.m.).
 LEIPZIG, 8.0—Variety (contd. from 7.30 p.m.).
 LYONS (La Doua), 8.0—Wireless Notes. 8.10—Talk: Winter Sports. 8.20—Film Review. 8.30—Dramatic Programme.
 MADRID (EAJ7), 8.0—For Children. 8.15—News.
 MONTE CENERI, 8.0—Reading. 8.15—Viennese Waltzes. 8.30—Dance Music.
 MOSCOW (No. 1), 8.55—Chimes.
 MUNICH, 8.0—See 7.10 Berlin.
 OSLO, 8.0—Hungarian Music. 8.10—Talk. 8.40—Weather. 8.45—News.
 PALERMO, 8.0—Orchestra.
 PARIS (Eiffel Tower), 8.0—Schubert Records. 8.15—Political Announcements. 8.30—Records.
 PARIS (Poste Parisien), 8.10—Chamber Concert. 8.40—Exchange. 8.55—Gala Concert with Records.
 PARIS (Radio-Paris), 8.0—Chamber Concert. Clarinet Sonata (Brahms), Songs, Pft. and Horn Solos, Octet (Schubert). 8.30—News. 8.45—Concert (contd.).
 PRAGUE (No. 1), 8.0—Station Orchestra. 8.30—See Brno.
 RADIO-NORMANDIE, 8.0—Concert. 8.45—Operetta Music.
 REYKJAVIK, 8.0—Light Music. 8.10—Weather. 8.20—Announcements. 8.25—To be announced.
 ROME, 8.0—Concert (contd. from 7.40 p.m.).
 SOTTENS, 8.0—Station Orchestra (contd. from 7.35 p.m.).
 STOCKHOLM, 8.0—Orchestra (contd. from 7.40 p.m.). 8.45—Weather; News.
 STRASBOURG, 8.0—News in German; Lottery Results; Announcements. 8.30—"Lohengrin"—Opera (Wagner), from the Municipal Theatre, Metz.
 STUTTGART, 8.0—Dances of the Nations: Philharmonic Orchestra, conducted by Görlich, and a Balalaika Orchestra.
 TOULOUSE, 8.0—Accordion Music. 8.15—Two-Steps. 8.30—Opera-Comique Music. 8.45—Viennese Orchestra.
 TURIN, 8.0—"Boris Godunov" (Mussorgsky), relayed from Genoa (contd. from 7.50 p.m.).
 VIENNA, 8.0—Reading (Mumelter). 8.25—News. 8.45—Snow Report.
 WARSAW, 8.0—Karlowitz Memorial Concert (contd. from 7.0 p.m.). 8.30—The Letter Box. 8.45—Records.

9 p.m.

ALGIERS, 9.0—Comedy (contd. from 8.20 p.m.). 9.10—Dance Music. 9.30—News. 9.35—Dance Music (contd.). 9.55—News.
 ATHLONE, 9.5—Talk: Louis Pasteur. 9.20—Gaelic Songs. 9.30—Variety.
 BARCELONA, 9.0—Chimes; Weather. 9.5—Announcements; Exchange. 9.10—Records. 9.30—Programme of Spanish and Catalan Music.
 BERLIN, 9.0—Weather; News. 9.20—What People are talking about in America (on Records). 9.30—Variety.
 BEROMÜNSTER, 9.0—Humorous Sketch.
 BRATISLAVA, 9.15—News in Hungarian.
 BRESLAU, 9.0—News. 9.20—See Berlin.
 BRUSSELS (No. 1), 9.0—For Women. 9.15—Records. 9.30—Accordion Recital. 9.45—Records.
 BRUSSELS (No. 2), 9.0—Choral Concert from Antwerp.
 BUDAPEST (No. 1), 9.0—Opera Relay. 9.30 (approx.)—Cigány Band.
 DEUTSCHLANDSENDER, 9.0—News. 9.25—Report on the International Horse Show. 9.45—Weather.
 FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.30—News. 9.45—Talk: What People are saying in America.
 HAMBURG, 9.0—News. 9.20—See Berlin.
 HEILSBURG, 9.0—News. 9.30—Talk: What People are talking about in America (on Records).
 HILVERSUM, 9.0—First Act of "Countess Maritza" (contd. from 7.45 p.m.). 9.10—The Concertgebouw Orchestra, from the Concertgebouw, Amsterdam. Conductor: Bruno Walter.
 HUIZEN, 9.0—Talk (contd. from 8.40 p.m.). 9.10—Bouwmeester (Organ). Allegro (Handel). Chogal (Pokron). Sacred Songs; Improvisation. 9.40—News. 9.50—Records.
 JUAN-LES-PINS (Radio Côte d'Azur), 9.0—Weather. 9.15—Literary and Musical Programme.
 KALUNDBORG, 9.0—Orchestra (contd. from 7.10 p.m.). 9.15—News. 9.30—Dance Music from the National Scala.
 KAUNAS, 9.0—Orchestra.
 LANGENBERG, 9.0—Time; News. 9.20—Programme Announcements. 9.30—Records.
 LEIPZIG, 9.0—Variety (contd. from 7.30 p.m.).
 LYONS (La Doua), 9.0—Dramatic Programme. 9.30—Concert, conducted by Jean Witkowski. Mlle. Daubian (Pianoforte). Mlle. Faudray (Violin), Mlle. Richard (Violin), Mlle. Dujolo (Viola). After the Concert: News.
 MADRID (EAJ7), 9.30—Chimes; Time; News. 9.40 (approx.)—Pianoforte Recital by Teresa Gonzalez Lopez, followed by Dramatic Programme. After the Programme: Dance Music.
 MOSCOW (No. 1), 9.0—Chimes. 9.5—International Broadcast.
 MUNICH, 9.0—Variety. 9.20—Time; Weather; News; Exchange; Sports Notes. 9.30—Variety (contd.).
 OSLO, 9.0—Topical Talk. 9.15—Concert; Reading.
 PALERMO, 9.0—Orchestra; Records.
 PARIS (Poste Parisien), 9.0—Gala Concert with Records.
 PARIS (Radio-Paris), 9.0—Concert (contd. from 8.0 p.m.).
 PRAGUE (No. 1), 9.0—Time; News. 9.15—Records. 9.30—Talk in Czech, German, and French on the following Transmission. 9.40—Smetana Concert, Choral.
 RADIO-NORMANDIE, 9.0—Concert. REYKJAVIK, 9.0—Chimes; News. 9.30—Reading.
 ROME, 9.0—Concert (contd. from 7.40 p.m.).
 SOTTENS, 9.0—Station Orchestra (contd. from 7.35 p.m.).
 STOCKHOLM, 9.0—Records.
 STRASBOURG, 9.0—"Lohengrin" (Wagner) (contd. from 8.30 p.m.).
 STUTTGART, 9.0—Time; News. 9.15—Topical Talk. 9.25—Announcements. 9.45—Talk: What People are saying in America.
 TOULOUSE, 9.0—Concert Version, "Baby in the Bar." 9.30—Songs. 9.45—Operetta Music; Sound Film Songs.
 TURIN, 9.0—Opera (contd. from 7.50 p.m.).
 VIENNA, 9.0—The "Drum" Mass (Haydn): The Hofmusik Orchestra and Soloists.
 WARSAW, 9.0—Records. 9.30—Dance Music.

10 p.m.

ALGIERS, 10.0—Oriental Music.
 ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Songs. 10.50—Traditional Fiddle.

BARCELONA, 10.0—Spanish and Italian Music (contd. from 9.30 p.m.).
 BERLIN, 10.0—Variety: BRESLAU, 10.0—See 7.30 p.m. Berlin.
 BRUSSELS (No. 1), 10.0—News. 10.10—Old and Modern Dance Records; Sound-Film Music.
 BRUSSELS (No. 2), 10.0—News. 10.10—Records.
 BUDAPEST (No. 1), 10.0—Cigány Music. 10.20—Dance Music by the Petaky Jazz Band.
 DEUTSCHLANDSENDER, 10.0—Orchestra.
 FRANFURT, 10.0—See Stuttgart.
 HEILSBURG, 10.0—See Berlin.
 HILVERSUM, 10.0—Concertgebouw Orchestra (contd. from 9.10 p.m.). 10.10—Records. 10.40—News; 10.50—Variety from "The Gaiety," Amsterdam.
 HUIZEN, 10.0—Records.
 KALUNDBORG, 10.0—Dance Music.
 LANGENBERG, 10.0—Orchestra.
 LEIPZIG, 10.0—Variety (contd. from 7.30 p.m.).
 LYONS (La Doua), 10.0—Concert.
 MADRID (EAJ7), 10.0—Dramatic Programme.
 MADRID (EAQ), 10.30—Spanish Two-Steps; Programme from Madrid (EAJ7). After the Relay, News.
 MUNICH, 10.0—Variety. News in the interval.
 PALERMO, 10.0—News.
 PARIS (Poste Parisien), 10.0—Gala Concert with Records. 10.10—News; Exchange.
 PITTSBURGH, 10.0—Uncle Tom and Betty. 10.15—KDKA Kiddies' Klub. 10.30—The Singing Lady, from New York. 10.45—Orphan Annie, from New York.
 PRAGUE (No. 1), 10.0—Smetana Concert.
 RADIO-NORMANDIE, 10.0—Concert.
 REYKJAVIK, 10.0—The Radio Trio: Icelandic Songs (on Records). Dance Records.
 ROME, 10.0—Dance Music.
 STRASBOURG, 10.0 (approx.)—Press Review. 10.15 (approx.): "Lohengrin" (contd.).
 STUTTGART, 10.0—Hedwig Fassbaender (Violin), Hanns Rohr (Piano), followed by Dance Music.
 TOULOUSE, 10.15—North African News. 10.30—Vocal Tangos. 10.45—Orchestra.
 TURIN, 10.0—Opera (contd. from 7.5 p.m.).
 VIENNA, 10.0—Dance Records; Announcements.
 WARSAW, 10.0—News. 10.5—Dance Music.

11 p.m.

BARCELONA, 11.0—Spanish and Catalan Music (contd. from 9.30 p.m.).
 BRNO, 11.0—Records.
 DEUTSCHLANDSENDER, 11.0—Records.
 FRANKFURT, 11.0—Records.
 HILVERSUM, 11.0—Variety (contd. from 10.50 p.m.).
 HUIZEN, 11.0—Records.
 KALUNDBORG, 11.0—Time; Chimes from the Town Hall. 11.2—Dance Music.
 LANGENBERG, 11.0—Records.
 MADRID (EAJ7), 11.0—Dramatic Programme. 11.45—News.
 MADRID (EAQ), 11.0—See Madrid (EAJ7).
 PITTSBURGH, 11.0—News; Pat Haley. 11.15—Sports; Programme Preview. 11.30—KDKA Salon Orchestra. 11.45—Lowell Thomas, from New York.
 RADIO - NORMANDIE, 11.0—Variety.
 REYKJAVIK, 11.0—Dance Records.
 STUTTGART, 11.0—Records.
 TOULOUSE, 11.0—Opera Music. 11.15—Dance Music.

12 midnight

BARCELONA, 12.0—News.
 MADRID (EAJ7), 12.0—Chimes.
 MADRID (EAQ), 12.0—Variety.
 PITTSBURGH, 12.0—Amos n' Andy, from New York. 12.15—Lois Miller (Organist). 12.30—Carlos Gardel, from New York.
 RADIO-NORMANDIE, 12.0—News in English. 12.15 (Friday)—Light Music.
 SCHENECTADY, 12.45—Stock Reports.
 TOULOUSE, 12.0—News. 12.5 a.m. (Friday)—Songs. 12.15—Opera Music.

1 a.m. (Friday)

RADIO-NORMANDIE, 1.0—News. 1.15—Dance Music.

2 a.m.

RADIO - NORMANDIE, 2.0—Dance Music.

FRIDAY (February 9)

NATIONAL

For Time Signals, see Monday.
 10.15 a.m. (Daventry) Service.
 10.30 (Daventry)—Weather Forecast.
 10.45—11.0 (Daventry)—"Commonsense and the Child," by a Doctor.
 12 noon—An Organ Recital from Downside Abbey.
 12.30 p.m.—The B.B.C. Dance Orchestra, directed by Henry Hall.
 1.15—The Northern Studio Orchestra.
 2.5 (except Scottish)—For the Schools: "Life and Work in the British Empire." 2.30—English Literature (Reading). 3.0—Concert Talk.
 3.35—Afternoon Story.
 2.0—3.50 (Scottish)—London Regional Programme.
 3.50 (Daventry)—Charles Manning and his Orchestra.
 4.30 (Daventry)—The Hotel Metropolitan Orchestra.
 5.15 (except Daventry)—The B.B.C. Dance Orchestra.
 5.15 (Daventry)—The Children's Hour.
 6.0—"The First News."
 6.25—Bulletin of Special Notices.
 6.30—The Foundations of Music. Haydn String Quartets.
 6.50—Keyboard Talk. Sir Walford Davies.
 7.10—7.25—Gardening Talk. Mr. Herbert Cowley: "Alpines under Glass."
 7.30—The British Empire—2. The Colonial Empire. British Rule in Africa: Setting the Scene. Mr. I. L. Evans.
 8.0—"Songs from the Shows." New Series—No. 24. Adelphi Theatre. Cast: Anona Winn, Toots Pundell, Raymond Newell, Reginald Purdell, Reginald Mitchell. At the Pianos: Harry S. Pepper and Doris Arnold. The B.B.C. Theatre Orchestra and The Revue Chorus.
 9.0—"The Second News."
 9.20—Enquiry into the Unknown. Professor C. G. Seligman: "Ritual and Healing."
 9.35—"Emil and the Detectives." Adapted for the microphone by Marianne Helweg.
 10.50—Reading.

10.55—12.0 (Daventry)—Harry Roy and his Band.
 11.0—11.30 (London)—Television

REGIONAL

For Time Signals, see Monday.
 10.15—11.0 a.m. (except Midland)—Daventry National Programme.
 12 noon—The Bradford New Victoria Cinema Orchestra.
 1.0 p.m.—Records (From Operas).
 2.0 (except Scottish)—The Midland Studio Orchestra.
 2.0 (Scottish)—Gramophone Records.
 2.30 (Scottish)—For the Schools.
 2.35 (Scottish)—Geography. 3.0—Concert for Secondary Schools.
 3.0 (except Scottish)—The John MacArthur Quintet.
 3.50 (except Midland)—Daventry.
 5.15—The Children's Hour.
 6.0—"The First News."
 6.30 (Scottish, London, North)—"Dancing Round Europe." The Scottish Studio Orchestra.
 6.30 (Midland and West)—Frank Newman (organ), Vernon Roberts (baritone).
 7.15—"An' Twal Mile Room." Variety from The Most Northerly Station of the B.B.C.
 8.0 (except West)—Chamber Music. The Brosa String Quartet; May Busby (soprano).
 8.0 (West)—"Hurdy Gurdy." A Selection of Songs from Stage, Screen, and Drawing Room.
 9.15 (London, West, Scotland)—The B.B.C. Orchestra (Section E). Conducted by Joseph Lewis. Philip Cathie (violin).
 9.15 (Midland)—Soldier Songs. Cuthbert Ford (baritone) and The Midland Studio Chorus.
 9.15 (North)—Talk: "Carlisle—the Gateway of the North."
 9.30 (North)—"The Music of the Church"—I.
 10.0 (Midland)—"What's in the Wind."
 10.15—"The Second News."
 10.30—12.0 (Midland till 11.0)—Harry Roy and his Band.
 11.0—11.30 (Midland)—Television (Baird Process) (Sound).

EMPIRE SUMMARY

For wavelengths, see S.W. List
Transmission 1 (.SF, GSD)
 G.M.T.
 8.0 a.m.—Big Ben. Empire News and Fruit Market Notes.
 8.15—Medvedeff's Balalaika Orchestra*, with Olga Alexeeva (Soprano).
 8.45—A Light Orchestral Concert.
 9.30—"Public School Empire Tours" Dr. Montague Rendall, C.M.G.
 9.45—Interlude. 10.0—Close Down.
Transmission 2 (GSG, GSE)
 12 noon—Big Ben. An Organ Recital.
 12.30 p.m.—The B.B.C. Dance Orchestra.
 1.15—The Northern Studio Orchestra. 1.45—Close Down.
Transmission 3 (2.0—4.0 p.m. GSE, GSB; 4.0—6.0 p.m., GSB, GSA)
 2.0 p.m.—Big Ben. Empire News. 2.15—"Looking Backwards." A Review of the Past Month.
 2.45—Walter Rehberg (Pianoforte).
 3.0—The John MacArthur Quintet.
 3.50—Daventry.
 4.10—"Music and the Ordinary Listener." Sir Walford Davies.
 4.30—Play: "Boys Together."
 5.0—Empire News (Second Reading).
 5.15—The B.B.C. Dance Orchestra.
 6.0—Close Down.
Transmission 4 (6.15—7.45 p.m., GSD, GSB; 7.45—10.45 p.m., GSB, GSA)
 6.15 p.m.—Big Ben. Empire News, and Fruit Market Notes.
 6.30—Dancing Round Europe. The Scottish Studio Orchestra.
 7.15—"An' Twal Mile Room." A Programme of Variety.
 8.0—"Songs from the Shows."
 9.0—Talk: "The Colonial Empire."* "Africa—Setting the Scene."
 9.30—Famous British Dance Bands. †
 10.15—Empire News.
 10.30—Harry Roy and his Band.
 10.45—Close Down.
Transmission 5 (GSC, GSA)
 11.0 p.m.—Big Ben. "An' Twal Mile Room."
 11.45—Medvedeff's Balalaika Orchestra.*
 12.15 a.m.—Talk: "The British Empire."* 12.45—Empire News.
 1.0—Close Down.
 * Electrical Recording.
 † Gramophone Records.

PRINCIPAL EVENTS

CONCERTS

6.0 p.m. Breslau and German Stations: Orchestral and Choral music.
 7.0 " Bucharest: The Philharmonic Orchestra.
 7.0 " Budapest: Excerpts from operettas.
 7.0 " Oslo: Symphony concert.
 7.10 " Breslau, etc.: "The Craftsman" in Opera and Song.
 7.15 " Warsaw: The Philharmonic Orchestra.
 7.30 " Eiffel Tower: Lekeu programme.
 7.40 " Rome, etc.: Symphony No. 2 (Brahms), etc.
 8.0 " Brussels No. 1: Military music.
 8.0 " Brussels No. 2, Huizen: Gala Concert, orchestral and vocal.
 8.0 " Prague: Station Orchestra, Czech programme.
 8.0 " Stuttgart, etc., Deutschlandsender: Orchestral and vocal.
 8.0 " Turin, etc.: Symphony No. 6 (Beethoven), etc.
 8.10 " Poste Parisien: The Station Orchestra.
 8.55 " Budapest: Cigany Band.
 9.0 " Strasbourg: The Toulouse Concert Society.
 9.10 " Kalundborg: Slav and Czech music.
 9.30 " Heilsberg, etc.: Johann Strauss Hour.
 9.35 " Breslau, etc.: Opera and Operetta music.
 10.0 " Leipzig, Stuttgart: The Dresden Philharmonic.

OPERAS

6.35 p.m. Vienna: "The Circle of Chalk" (Zemlinsky), Austrian premiere.
 8.45 " Radio-Paris: "Philemon and Baucis" (Gounod).

CHAMBER MUSIC

4.5 p.m. Prague: Quartet (Verdi); Quintet (Weber).
 6.30 " Stockholm: Sonatas (Grazioli, Bach).
 7.0 " Sottens: Quartet (Mozart), Quintet (Schumann).

RECITAL

3.55 p.m. Warsaw: 'Cello, Arias, Songs.

TALK

7.30 p.m. Radio-Paris: Talk: "The History of Opera—Mozart" (Paul Landormy).

DANCE MUSIC

5.0 p.m. Brussels No. 2; 9.10, Sottens; 9.50, Kalundborg; 10.5, Warsaw.

MISCELLANEOUS

10.10 p.m. Brussels No. 2: The start of the Six Days' Cycle Race.

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.

BERLIN, 5.15—Gym. 5.30—Motto; Weather. 5.35—Orchestra.
 BEROMÜNSTER, 5.30—Gym.
 BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Records.
 BUDAPEST (No. 1), 5.45—Gym; Records.
 DEUTSCHLANDSENDER, 5.0—Weather; News. 5.15—Gym. 5.30—Weather; Motto. 5.35—See Hamburg. In the Interval: News.
 FRANKFURT, 5.0—Choral; Time. 5.5—Gym. 5.55—Time; News.
 HAMBURG, 5.0—Time; Announcements. 5.15—Gym. 5.30—Time; Weather. 5.35—Concert from Kiel. In the Interval: Time; News; Motto.
 HEILSBURG, 5.15—Gym. 5.35—See Hamburg.
 LANGENBERG, 5.0—Choral; Motto. 5.5—Concert. 5.40—Gym.
 LEIPZIG, 5.30—Gym. 5.45—Concert.
 MOSCOW (No. 1), 5.15—Announcements. 5.30—Music.
 MUNICH, 5.30—Gym. 5.45—Hymn; Motto; Records.
 PRAGUE (No. 1), 5.15—Time; Gym; Music; News.
 SOTTENS, 5.55—Gym.
 STUTTGART, 5.0—Hymn; Weather; Gym. 5.55—Time; News.

6 a.m.

BERLIN, 6.0—News. 6.15—Orchestra.
 BRESLAU, 6.0—Records. 6.15—News; Time. 6.25—Orchestra.
 BUDAPEST (No. 1), 6.0—Records.
 DEUTSCHLANDSENDER, 6.0—See Hamburg.
 FRANKFURT, 6.5—News. 6.10—Records.
 HAMBURG, 6.0—Concert from Kiel.
 HEILSBURG, 6.0—See Hamburg.
 KALUNDBORG, 6.0—Gym.
 LAHTI, 6.5—6.20—Service in Swedish. 6.30—6.45—Service in Finnish.
 LANGENBERG, 6.0—Time; News; Choral; Records.
 LEIPZIG, 6.0—Concert. 6.15—News; Time. 6.25—Orchestra.
 MOSCOW (No. 1), 6.0—Music.

MUNICH, 6.0—Records. 6.15—Time; News. 6.25—Orchestra.
 PARIS (Radio-Paris), 6.45—Gym.
 ROME, 6.45—Gym.
 STOCKHOLM, 6.20—Gym. 6.45—Morning Prayers.
 STUTTGART, 6.0—News. 6.5—Weather. 6.10—Records.
 TURIN, 6.45—Gym.
 WARSAW, 6.0—Time; Hymn; Gym. 6.20—Records; News. 6.55—For Housewives.

7 a.m.

BARCELONA, 7.15—News; Records.
 BERLIN, 7.0—Gym. 7.15—Records.
 BRESLAU, 7.0—Orchestra.
 DEUTSCHLANDSENDER, 7.45—Gym. for Women.
 FRANKFURT, 7.0—Records. 7.15—Tides; Weather. 7.25—7.45—Gym.
 HAMBURG, 7.0—Weather; Cookery Talk. 7.35—Ice Report.
 HILVERSUM, 7.40—Records.
 HEILSBURG, 7.0—Morning Prayers.
 HUZEN, 7.40—Records.
 KALUNDBORG, 7.30—Service from the Cathedral.
 LANGENBERG, 7.0—Records. 7.15—Time; Announcements. 7.20—For Women. 7.30—Gym. for Women.
 LEIPZIG, 7.0—Orchestra.
 MOSCOW (No. 1), 7.15—For Children.
 MUNICH, 7.0—Orchestra.
 PARIS (Poste Parisien), 7.10—Fanfare; Records. In the Interval: News; For Housewives.
 PARIS (Radio-Paris), 7.0—Records. 7.15—News; Weather. 7.45—Gym.
 RADIO - NORMANDIE, 7.15—Records. 7.30—News.
 ROME, 7.0—Time; News.
 STUTTGART, 7.0—Records. 7.15—Announcements. 7.25—Gym. 7.45—For Farmers.
 TURIN, 7.0—7.20—Time; News.
 WARSAW, 7.0—Announcements.

8 a.m.

BARCELONA, 8.0—Chimes; Gym; Records. 8.20—News; Records.
 BERLIN, 8.0—See Deutschlandsender.
 BRESLAU, 8.0—Gym. for Women. 8.20—Time; News.
 BUDAPEST (No. 1), 8.45—News.
 DEUTSCHLANDSENDER, 8.0—For Schools. 8.40—Hermann Lindemanna reads.

HEILSBURG, 8.0—French Broadcast for Schools.
 HILVERSUM, 8.0—Records.
 HUZEN, 8.0—Records.
 KALUNDBORG, 8.0—Service.
 LEIPZIG, 8.0—Gym. for Women. 8.40—Exchange.
 LYONS (La Doua), 8.0—News and Weather.
 MADRID (EAJ7), 8.0—News.
 MOSCOW (No. 1), 8.55—Time.
 MUNICH, 8.0—Gym. for Women.
 PARIS (Radio-Paris), 8.0—Records.
 PRAGUE (No. 1), 8.50—News.
 RADIO - NORMANDIE, 8.0—Records. 8.15—Social Assurance Review. 8.30—Reading.
 TOULOUSE, 8.0—Dance Music. 8.30—News. 8.35—Opera Music. 8.45—Sound Film Songs.
 VIENNA, 8.20—Market Prices. 8.30—Weather.

9 a.m.

BARCELONA, 9.0—In Memoriam.
 BERLIN, 9.0—News; Exchange.
 BRATISLAVA, 9.10—News in Hungarian.
 BRESLAU, 9.10—For Schools.
 BUDAPEST (No. 1), 9.0—Topical Talk; Records.
 DEUTSCHLANDSENDER, 9.0—News. 9.10—For Schools.
 9.50—Gym. for Children.
 FRANKFURT, 9.0—News.
 HAMBURG, 9.0—Records. 9.50—News.
 HEILSBURG, 9.40—News. 9.55—Weather.
 HILVERSUM, 9.0—Records. 9.40—Religious Programme. 9.55—Records.
 HUZEN, 9.40—Records.
 LANGENBERG, 9.0—Time; News. 9.10—Two Topical Talks.
 MOSCOW (No. 1), 9.0—News.
 MUNICH, 9.15—English Lesson. 9.55—Exchange.
 OSLO, 9.0—Market Prices.
 PRAGUE (No. 1), 9.5—News in German. 9.10—Records. 9.30—For Schools.
 STUTTGART, 9.0—News. 9.10—Records.
 VIENNA, 9.50—Tides.

10 a.m.

BERLIN, 10.25—Exchange. 10.30—Records.
 BRATISLAVA, 10.0—Tides.
 BRESLAU, 10.0—Academic Celebrations for the Centenary of Felix Dahn, from the Friedrich-Wilhelm University.

BUDAPEST (No. 1), 10.0—Records. 10.10—Tides.
 DEUTSCHLANDSENDER, 10.0—Gym. for Children. 10.15—Weather. 10.30—Talk: Is the World Over-populated? 10.45—Topical Talk.
 FRANKFURT, 10.0—Variety. 10.40—Announcements.
 HAMBURG, 10.0—For Schools. 10.30—Military Band. In the interval, For Women; Announcements.
 HEILSBURG, 10.0—Ice Report. 10.30—Military Band.
 HILVERSUM, 10.0—Records. 10.25—Organ. 10.55—Records.
 HUZEN, 10.0—Records.
 KALUNDBORG, 10.0—Weather. 10.10—Fish Market Prices. 10.15—For Schools.
 LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange. 10.45—News. 10.59—Time; Weather.
 LANGENBERG, 10.0—For Schools. 10.30—Records.
 LEIPZIG, 10.0—Post Office Propaganda; Records. 10.25—For the Countrywoman. 10.40—Weather; News; Time.
 LYONS (La Doua), 10.30—Concert.
 MOSCOW (No. 1), 10.15—Literary Programme.
 MUNICH, 10.5—For Farmers; Time; News. 10.30—Post Office Propaganda; Records.
 OSLO, 10.15—Service.
 PRAGUE (No. 1), 10.0—Records. 10.5—For Schools. 10.55—For Farmers.
 RADIO - NORMANDIE, 10.0—Variety.
 STRASBOURG, 10.30—Orchestra.
 STUTTGART, 10.0—Records. 10.25—Post Office Concert. 10.55—Weather.
 TURIN, 10.15—Quintet.
 VATICAN CITY, 10.0—Religious Information in German.
 VIENNA, 10.30—Italian Lesson. 10.55—Weather.
 WARSAW, 10.40—Press Review. 10.50—Theatre Guide. 10.57—Fanfare from St. Mary's Church, Cracow.

11 a.m.

BARCELONA, 11.0—Chimes; Weather.
 BERLIN, 11.0—Records. 11.15—Weather. 11.20—Records.
 BEROMÜNSTER, 11.0—Records:

Light Music. 11.29—Time; Weather; News. 11.40—Orchestra.
 BRATISLAVA, 11.0—For Farmers. 11.10—News in Slovak. 11.20—Records.
 BRESLAU, 11.0—Time; News. 11.15—Concert from Munich.
 BUCHAREST, 11.0—Exchange; Tides; Records.
 BUDAPEST, 11.0—Chimes. 11.5—Eugen Stepet, and his Balalaika Orchestra.
 DEUTSCHLANDSENDER, 11.0—Weather. 11.10—Records.
 FRANKFURT, 11.0—Orchestra. Conductor: Rosbaud. August Schreiber ("Cello). Symphony in C (Haydn). "Cello Concerto in D (Haydn). Ballet Music (Mozart) from (a) "Idomeneo," (b) "Les petits riens."
 HILVERSUM, 11.0—Records. 11.40—Time. 11.41—Otto Hendricks and his Orchestra.
 HUZEN, 11.0—Records. 11.10—For Invalids. 11.40—Police Notes. 11.55—Concert. In the Interval, Records.
 KALUNDBORG, 11.0—Time and Chimes from the Town Hall. 11.2—String Ensemble Concert.
 LAHTI, 11.0—Weather. 11.15—Shipping.
 LANGENBERG, 11.0—Orchestra. 11.45—Announcements.
 LEIPZIG, 11.0—See Munich.
 LYONS (La Doua), 11.0—Concert.
 MADRID (EAJ7), 11.0 (approx.)—Relay from the Ayuntamiento.
 MONTE CENERI, 11.0—News; Records. 11.29—Time Signal; Weather. 11.31—Station Orchestra.
 MUNICH, 11.0—Orchestra, conducted by Kloss. Overture, "Wiener Frauen" (Lehar). Tone Picture, Einsame Feldwacht (Graener). Suite (Travaglia). Gruss an Wien (Bausner). Sérénade inutile (de Teyce). Gipsy Dance (Nachec). Selection, "Das Nachtlager in Granada" (Kreutzer). Pierrette (Brase).
 MORAVSKÁ-OSTRAVA, 11.35—Station Orchestra conducted by Plichta.
 OSLO, 11.10—Exchange. 11.55—Time Signal.
 PRAGUE (No. 1), 11.0—See Bratislava. 11.10—Records. 11.25—News. 11.35—See Moravská-Ostrava.
 RADIO - NORMANDIE, 11.0—Records.
 REYKJAVIK, 11.0—Weather.

FRIDAY Feb. 9

11 a.m. (contd.)

ROME, 11.30—Records.
 SOTTENS, 11.28—Time; News; Weather. 11.40—The Station Orchestra conducted by Moser.
 STOCKHOLM, 11.30—Weather; Ice Report. 11.45—Exchange. 11.55—Time.
 STUTTGART, 11.0—See Frankfurt.
 TURIN, 11.0—Quintet. 11.30—Records. 11.45—News.
 VIENNA, 11.0—The "Wiener Symphoniker." Conductor: Josef Holzer.
 W A R S A W, 11.5—Mandoline Orchestra. Overture (Viche). Waltz (Obyczajko). Oriental Dance (Lubomirski). Oberek No. 1 (Kuberski). Polpourri (Viche). Intermezzo (Lindsay). Mazurka (Lewandowski). Polka (Gorski). In the interval, Weather. 11.55—News.

12 noon

ALGIERS, 12.30—Records.
 BARCELONA, 12.0—For Women. 12.30—Letter Box. 12.45—Records.
 BERLIN, 12.0—Records: "Cello Concerto in A (Schubert). 12.20—Light Music.
 BEROMÜNSTER, 12.0—Orchestra. 12.25—Time; Weather; Exchange.
 BRATISLAVA, 12.45—News in German and Hungarian.
 BRESLAU, 12.0—See 11.0 Munich. 12.15—News. 12.25—Records.
 BRNO, 12.35—Talk.
 BRUSSELS (No. 1), 12.0—The Station Orchestra, conducted by Leemans. Mme. Simone Deval (Soprano).
 BRUSSELS (No. 2), 12.0—Records.
 BUCHAREST, 12.0—News. 12.15—Records.
 BUDAPEST (No. 1), 12.0—Balalaika Music. 12.30—Orchestra, conducted by Béla Melfes.
 DEUTSCHLANDSENDER, 12.45—News.
 FRANKFURT, 12.0—Orchestra (contd. from 11.0). 12.15—Time; News. 12.35—Records.
 HAMBURG, 12.0—Exchange. 12.10—Weather. 12.20—Popular Music.
 HEILSBURG, 12.1—Time; Weather. 12.5—Records. 12.10—Records. 12.20—News. 12.30—Records.
 HILVERSUM, 12.0—Orchestra. 12.25—Records. 12.55—Orchestra.
 HUIZEN, 12.0—Concert.
 JUAN-LES-PINS (Radio Côte

D'Azur), 12.30—Amusement Guide; Variety.
 KALUNDBORG, 12.0—String Ensemble Concert.
 LANGENBERG, 12.0—Chamber Music. Gerda Rehm (Soprano), Hans Haass (Pianoforte) and String Quartet. 12.45—Announcements.
 LEIPZIG, 12.0—See 11.0 Munich. 12.15—News. 12.25—Records.
 LYONS (La Doua), 12.30—Records. In the interval, News and Exchange.
 MONTE CENERI, 12.0—News. 12.5—Sports Notes. 12.20—Reading. 12.30—Snow Report; Records.
 MUNICH, 12.0—Orchestra (contd. from 11.0). 12.15—Time; News. 12.25—Records.
 OSLO, 12.0—Records. In the intervals, Weather; For Farmers; Exchange.
 PALERMO, 12.0—Records. In the interval, Time; News.
 PARIS (Eiffel Tower), 12.30—Concert. PARIS (Poste Parisien), 12.0—Exchange. 12.5—Ballet égyptien (Luigini) on Records. 12.20—News. 12.30—New Records.
 PARIS (Radio-Paris), 12.0—Hebrew Music. 12.30—Orchestra. Minuet and Finale from the "Surprise" Symphony (Haydn). Serenade and Canonetta (Mendelssohn). Variations on the "Trout" Quintet (Schubert). Norwegian Rhapsody (Lalo). Serenade (Godard). Selection, "La princesse jaune" (Saint-Saëns). Selection, "Mirella" (Gounod). Piece (Liadov). Russian Dance (Moszkowsky). Valse caprice (Rubinstein). Scenes napolitaines (Massenet). Overture, Véronique (Messager). Marche Joyeuse (Chabrier).
 PRAGUE (No. 1), 12.35—Trade Report. 12.45—Records. 12.55—Exchange; Weather.
 R A D I O - N O R M A N D I E, 12.0—Records. 12.30—News. 12.45—Concert.
 ROME, 12.0—Orchestra. In the intervals, News; Exchange; Time; Announcements.
 SOTTENS, 12.0—Exchange. 12.5—The Station Orchestra.
 STRASBOURG, 12.0—Records. 12.45—News.
 STUTTGART, 12.0—See 11.0 Frankfurt. 12.15—Time; News. 12.35—Records.
 TOULOUSE, 12.0—Hawaiian Guitars. 12.15—Operetta Music. 12.30—News. 12.45—Request Music.
 TURIN, 12.0—Time; Announcements. 12.5—Light Music. 12.30—Records; Exchange. 12.45—Light Music.

VIENNA, 12.0—Time, Weather; Announcements. 12.10—The "Wiener Symphoniker." March (Mühlradler). Prelude (Lindauer). Waltz (Zihrer). Sprich nicht von ew'ger Liebe (Granichstaedten). Six Dances (Ledwinka). Tanzen möcht' ich, (Kálmán). March (Dostal).

1 p.m.

ALGIERS, 1.0—Amusement Guide News. 1.5—Records.
 ATHLONE, 1.30—Time; Weather; Stock Report; Records.
 BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records.
 BERLIN, 1.0—Light Music. 1.15—News. 1.35—Records.
 BRESLAU, 1.0—News. 1.10—Time; Weather. 1.15—Post Office Propaganda; Records. 1.45—Exchange.
 BRNO, 1.5—Market Prices.
 BRUSSELS (No. 1), 1.0—News. 1.10—Serenades on Records.
 BRUSSELS (No. 2), 1.0—News. 1.10—Orchestra, conducted by Leemans. Extracts from the Little Suite (Akron). Selection, "The Pearl Fishers" (Bizet). Petite Suite (Chaminade). Juegos (Turina). Acclamations (Waldteufel).
 BUDAPEST (No. 1), 1.0—Orchestra.
 DEUTSCHLANDSENDER, 1.0—Records.
 FRANKFURT, 1.0—Records. 1.40—For Women.
 HAMBURG, 1.0—Popular Music. 1.15—News. 1.35—Dances from Opera (on Records).
 HEILSBURG, 1.0—Records. 1.30—Post Office Propaganda; Records.
 HILVERSUM, 1.0—Orchestra. 1.25—Records. 1.40—Orchestra.
 HUIZEN, 1.0—Concert. 1.55—Records.
 JUAN-LES-PINS (Radio Côte D'Azur), 1.0—News. 1.15—Variety.
 LANGENBERG, 1.0—Records.
 LEIPZIG, 1.0—News. 1.15—Art Review. 1.25—Records. 1.45—Sonata in C minor (Grieg), by Paul Hungar (Violin and Theodor Blumer (Piano)).
 MUNICH, 1.0—Time; News. 1.50—Radio Sequence with Songs.
 OSLO, 1.0—Exchange.
 PARIS (Eiffel Tower), 1.0—Exchange. 1.15—News. 1.30—For Farmers. 1.45—Labour Market.
 PARIS (Poste Parisien), 1.0—Records. 1.5—Exchange. 1.15—Records of Jan Kiepura. 1.30—New Records.
 PARIS (Radio-Paris), 1.0—Orchestra (contd. from 12.30). 1.20—Exchange; News; Weather. 1.40 (approx.)—Orchestra (contd.).
 PRAGUE, (No. 1), 1.0—Exchange; News in German.
 PRAGUE (No. 2), 1.30—Records. 1.35—Talk. 1.45—Folk Songs.
 REYKJAVIK, 1.15—Variety.
 ROME, 1.0—Orchestra.
 STRASBOURG, 1.0—Time; Exchange. 1.5—Dance Records.
 STUTTGART, 1.0—Records.
 TOULOUSE, 1.0—Amusement Guide; Markets. 1.5—Orchestra. Demande et repense (Coleridge-Taylor). Rondo capriccioso (Mendelssohn). Polonaise in A (Chopin). 1.15—Songs. 1.30—Bal Musette. 1.45—Military Music.
 TURIN, 1.15-1.25—Exchange.

2 p.m.

BARCELONA, 2.0—Sextet Concert. In the interval: Tourist Report.
 BERLIN, 2.0—Exchange. 2.30—For Women. 2.50—Talk for the Twenty-Fifth Anniversary of the Association of German Women.
 BEROMÜNSTER, 2.30—Records. 2.59—Time.
 BRESLAU, 2.5—Hans Brandenburg reads from his Book, "Der Granatrichter." 2.30—For Young People.
 BRNO, 2.40—Talk on Shorthand.
 BRUSSELS (No. 1), 2.0—For Schools.
 BRUSSELS (No. 2), 2.0—For Schools.
 BUDAPEST (No. 1), 2.0—Orchestra. 2.30—Educational Programme.
 DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—Reading (Felix Dahn).
 FRANKFURT, 2.0—For Women. 2.30—Weather; Time; Exchange.
 HAMBURG, 2.0—Exchange. 2.40—Announcements. 2.50—Ice Report.
 HEILSBURG, 2.0—Exchange. 2.15—For Children. 2.35—For Women.
 HILVERSUM, 2.0—Orchestra. 2.10—Talk: Perennial Plants. 2.40—Records.
 HUIZEN, 2.0—Records. 2.40—Madrigals—Lecture Recital. Aleid Goetsch (Soprano), Marie Goetsch (Contralto), Reymans (Tenor) and Ponten (Bass).
 KALUNDBORG, 2.0—Orchestra. Overture, "Romeo and Juliet" (Bellini). Waltz Dreams on the Ocean (Gungl). Selection, "Faust" (Gounod). En badinant (d'Ambrosio). Golliwog's Cake Walk (Debussy). Four Pianoforte Solos: (a) Fantasia in C minor (Bach), (b) Pas-

torale and Capriccio (Scarlatti), (c) Fantasia impromptu (Chopin), (d) Jeux d'eau (Ravel). Overture, "Les dragons de Villars" (Mailart). Moorish Waltz (Coleridge-Taylor). Selection, "Rigoletto" (Verdi). Loin du bal (Gillet). Hungarian Dances No. 5 in G Minor, No. 6, in D (Brahms). March, "A Midsummer Night's Dream" (Mendelssohn).
 LANGENBERG, 2.0—Records. 2.10—Talk: Electricity, Coal and Gas in Industry. 2.30—Exchange. 2.40—For Country People.
 LEIPZIG, 2.0—Sonata (Grieg) (contd. from 1.45). 2.15—Reading of Lyrics. 2.25—For Women. 2.45—Exchange.
 MADRID (EAJ7), 2.0—Chimes; Time; Weather; Theatre Notes. 2.15 (approx.)—Concert. In the interval: Exchange.
 MOSCOW, 2.15—For Children 2.55—Time.
 MUNICH, 2.30—Talk: The Emperor Charles V in Munich. 2.50—For Farmers.
 PARIS (Eiffel Tower), 2.0—Exchange; Science Talk. 2.15—Economic Notes. 2.30—Exchange; Colonial Notes. 2.45—Recitations.
 PARIS (Poste Parisien), 2.0—Exchange.
 PARIS (Radio-Paris), 2.0—Announcements.
 PRAGUE (No. 1), 2.55—Exchange.
 PRAGUE (No. 2), 2.0—Folk Songs. 2.10—German Transmission; For Women; Talk in Dialect. 2.45—News in German.
 SOTTENS, 2.58—Time.
 STUTTGART, 2.0—Margarete Wetter (Soprano). 2.30—Seven Pianoforte Pieces (Adolf Ruthardt).
 TOULOUSE, 2.0—News; Exchange.
 VIENNA, 2.30—Time; Weather; Exchange. 2.50—Trio in F (Schumann), by the Schwarz Trio.
 WARSAW, 2.25—News. 2.30—Economic Notes. 2.40—Carnival Music on Records.

3 p.m.

BARCELONA, 3.0—For Invalids.
 BERLIN, 3.0—See Hamburg.
 BEROMÜNSTER, 3.0—Concert.
 BRATISLAVA, 3.55—Talk: Postage Stamps.
 BRESLAU, 3.0—See Munich. In an interval: Weather.
 BRNO, 3.0—Orchestra. 3.55—Talk: Ski-ing.
 BUDAPEST, 3.0—Talk.
 DEUTSCHLANDSENDER, 3.0—See Munich.
 FRANKFURT, 3.0—See Hamburg.
 HAMBURG, 3.0—Orchestra, conducted by Gerhard Maass. Gertrud Schnitzer (Songs), Bruno Micksche (Violin), Arno Schmiel (Clarinet), Hans Wurm (Flute). Overture, "Beherrscher der Geister" (Weber). Adagio (Wagner). March (Schubert). Waltz in A (Brahms). Overture and Dance from the Nutcracker Ballet (Tchaikovsky). Song, "The Geisha" (Jones). Sketches (Mracek). Romance (Svendsen). Norwegian Bridal Procession (Grieg). Waltz (Fuhrmeister). Selection, "Der Tenor der Herzogin" (Künneke).
 HEILSBURG, 3.0—See Hamburg.
 HILVERSUM, 3.0—Records. 3.45—Organ. It's the Talk of the Town (Levinson). Ballet Scene (Frederiksen). Snowball (Carmichael). Syncopation (Greer). Shadow Waltz (Warren). Selection, "Show Boat" (Kern).
 HUIZEN, 3.0—Lecture Recital (contd. from 2.40).
 KALUNDBORG, 3.0—Orchestra (contd. from 2.0).
 KAUNAS, 3.0—Technical Notes. 3.20—Letter Box. 3.40—Records.
 LANGENBERG, 3.0—Orchestra conducted by Kühn. Waltz (Kochmann). Pierrot und Pierrettes Liebestod (Lindemann). Spanish Dance, "Frasquita" (Lehár). Waltz (Strecker). Serenade (Gillet). Puppe and Kobold (Armandola). Traumverloren (Mannfeld). Serenade (Meyer-Helmund). 3.45—Talk: New Novels.
 LEIPZIG, 3.0—See Munich.
 MADRID (EAJ7), 3.0—Concert. 3.50—News.
 MONTE CENERI, 3.0—See Beromünster.
 MOSCOW (No. 1), 3.0—News.
 MUNICH, 3.0—Orchestra conducted by Kloss. Overture, "Die Märchenprinzessin" (Kosfal). French Serenade (Grieg). Selection, "I Pagliacci" (Leoncavallo). Waltz (Reini). Japanese Carnival (de Basque). Pantomime (Friml). Potpourri (Leuschner). A Birthday Greeting (Kettelbey). Liebeslied (Rüst). Modern Dance Suite (Niemann).
 PARIS (Eiffel Tower), 3.0—News; Aviation Notes. 3.15—Exchange. 3.45—Talk on Hygiene.

PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
 PARIS (Radio-Paris), 3.45—Exchange.
 PRAGUE (No. 1), 3.0—See Brno.
 RADIO-NORMANDIE, 3.30—Variety.
 ROME, 3.0—Ortensia Piercy di Mignano (Soprano), from the Royal Academy of St. Cecilia.
 SOTTENS, 3.0—See Beromünster.
 STUTTGART, 3.0—See Hamburg.
 TURIN, 3.0—See Rome. In the interval: News.
 VIENNA, 3.20—Talk: Three Famous Dancers, La Camargo, Maria Taglioni and Fanni Elssler. 3.45—Talk: Spain.
 WARSAW, 3.0—Records. 3.40—Book Review. 3.55—Mezzo-Soprano and Cello Recital by Ronska and Adamska. "Cello Solos: (a) Minuet (Haydn-Burmester-Moffat), (b) Adagio (Schubert), (c) Allegro appassionato (Saint-Saëns). Songs: (a) Aria from "Don Carlos" (Verdi), (b) Der Gärtner (Wolf), (c) Song (Schubert), (d), Am Meere (Schubert). "Cello Solos: (a) Chanson (d'Indy), (b) Gavotte (Popper). In the interval: Tenor Songs.

4 p.m.

BARCELONA, 4.0—News.
 BERLIN, 4.0—See 3.0 Hamburg.
 BEROMÜNSTER, 4.0—Records. 4.10—Orchestra.
 BRESLAU, 4.0—See Munich! 3.0.
 BUCHAREST, 4.0—Station Orchestra. March (Joh. Strauss). Waltz (Repper). Hamlet Overture (P. E. Bach). Selection, "A Masked Ball" (Verdi). Selection, "Paganini" (Lehár).
 BUDAPEST, 4.0—Talk. 4.30—Records.
 DEUTSCHLANDSENDER, 4.0—Lecture Recital. 4.25—Science Talk. 4.35—Folk Songs. The Eric Hanneman Women's Choir.
 FRANKFURT, 4.0—See 3.0 Hamburg. 4.45—Talk: German Labour Organisation.
 HAMBURG, 4.0—Orchestra (contd. from 3.0). 4.15—Chamber Music. Hermann von Beckerath (Viola da gamba), Ernst Döberitz (Viola d'amore), and Eigel Kuttige (Harpischord). Sonata in C for Viola da gamba and Harpischord (Handel). Concerto in E for Viola d'amore, Viola da gamba, and Harpischord (Telemann). Divertimento in D for Viola de gamba and Harpischord (Haydn).
 HEILSBURG, 4.0—See 3.0 Hamburg.
 HILVERSUM, 4.0—Organ (contd. from 3.45). 4.10—For Children. 4.40—Orchestra; conducted by de Groote. Overture, "The Nuremberg Doll" (Adam). Andante (Mendelssohn). Adagio (Mozart). Cordova (Albeniz). Invano (Amadei). Sourire d'Avril (Depret). Records. Black Eyes (Campolini). Bauern-Suite (Ailbott). La serenata (Braga). Marche de la jeunesse (Kricka).
 HUIZEN, 4.0—Lecture Recital (contd. from 2.40). 4.40—Talk on Gardening.
 KALUNDBORG, 4.0—Reading. 4.30—Exchange; Fish Market Prices. 4.43—A Poem. 4.45—Literary Talk.
 KAUNAS, 4.10—Two Talks. 4.50—Records.
 LAHTI, 4.0—Recitations. 4.20—Music. 4.50—News in Finnish. 4.59—Time.
 LANGENBERG, 4.0—The Düsseldorf Symphony Orchestra, conducted by Artz, from the Ibach-Saal. March (Herzer). Blumengeflüster (Blon). Ein Jahrmarkt in Krähwinkel (Schreiner). Waltz (Lanner). Rhapsody (Liszt). Potpourri (Thiele). Gallop (Liszt).
 LEIPZIG, 4.0—See 3.0 Munich.
 LYONS (La Doua), 4.30—Song and Cello Recital. After the Recital, Dance Music.
 MONTE CENERI, 4.0—See Beromünster.
 MOSCOW (No. 1), 4.30—Communist Party Programme.
 MUNICH, 4.0—Orchestra (contd. from 3.0). 4.30—"Down the Amazon"—a River Journey through Primeval Forests. 4.50—Pianoforte, Violin, Flute, and Clarinet Recital.
 OSLO, 4.0—Orchestra.
 PARIS (Eiffel Tower), 4.0—Tourist Report. 4.15—Exchange.
 PARIS (Poste Parisien), 4.50—Exchange.
 PARIS (Radio-Paris), 4.30—English Lesson.
 PRAGUE (No. 1), 4.5—The Ondricek Quartet (Verdi, Weber).
 REYKJAVIK, 4.0—Weather.
 SOTTENS, 4.0—See Beromünster.
 STOCKHOLM, 4.0—Weather. 4.5—For Boy Scouts. 4.25—Old Ballads. 4.40—Talk on Ski-jumping.



Breslau's programme this evening is "The Craftsman," of opera and song.

FRIDAY Feb. 9

4 p.m. (contd.)

STRASBOURG, 4.45—Talk on Literature. 4.45—An Interview with a Street Sweeper.
 STUTTGART, 4.0—See 3.0 Hamburg.
 TOULOUSE, 4.15—News; Exchange. 4.30—Dance Music. 4.45—An Interview with a Street Sweeper.
 TURIN, 4.0—See 3.0 Rome.
 VIENNA, 4.10—The Vienna Madrigal Society. Conductor: Dr. Hans Gál. Annelin (di Lasso). Ach, Schez, ich sing und lache (Hassler). Piece (Benetti). Villanella (Donati). Se tu non lasci amore (Handel). Songs (Haydn): (a) Die Harmonie in der Ehe, (b) Der Kreis, (c) Die Bereitsamkeit. Marienlieder (Brahms). Songs (Schumann): (a) Gute Nacht, (b) Romanze vom Gänseublen. 4.55—Tourist Talk.
 WARSAW, 4.0—Mezzo—Soprano, Cello, and Tenor (contd. from 3.55 p.m.). 4.50—The Letter Box.

5 p.m.

BERLIN, 5.0—Book Review. 5.30—Wireless Notes. 5.35—Discussion by Three Gliding Experts.
 BEROMÜNSTER, 5.0—For Children. 5.30—For Farmers.
 BRATISLAVA, 5.5—Sports Notes. 5.15—Hungarian Transmission.
 BRESLAU, 5.0—See Munich 5.10—Weather. 5.12 (approx.). Felix Dahn Anniversary Programme—Reading from "Erinnerungen seines Sohnes" (Friedel Dahn). 5.45—Announcements; Weather.
 BRNO, 5.5—Talk: Creative Art. 5.15 Talk. 5.25—German Transmission: Sports Notes and Talk: Correct and Incorrect German.
 BRUSSELS (No. 1), 5.0—Belgian Music. The Station Orchestra, conducted by Charles Walpot. Overture, "Pont d'amour" (van Oost). Chanson de la fleuse (van Oost). Cavatina and Humoresque (Vreuls). Romanian Mazurka (Rogister). Marche funèbre d'un hanneton (Dubois). Ballet du printemps (Dame). Dolly (d'Agrevès). Jinny (d'Agrevès). Joujou d'amour (Demaret). Idylle slave (Ackermanns).
 BRUSSELS (No. 2), 5.0—Dance Music.
 BUCHAREST, 5.0—News. 5.15—Concert. Suite (Morena). Hungarian Dances (Brahms). By the Blue Hawaiian Waters (Ketylberg). Dance (Mascagni). Jota (Saint-Saëns).
 BUDAPEST (No. 1), 5.0—Shorthand Lesson. 5.30—Fejes and his Band.
 DEUTSCHLANDSENDER, 5.0—A Poem. 5.5—Everyday Humour.
 FRANKFURT, 5.0—For Young People. 5.25—See Langenberg. 5.45—News; Time.
 HAMBURG, 5.0—Talk: Geological Finds in Sand Dunes. 5.15—Talk: False Coinage in Earlier Times. 5.30—Talk and Readings for the Centenary of Felix Dahn. 5.45—Exchange. 5.50—Weather.
 HEILSBURG, 5.0—Talk: Peasant Dwellings. 5.15—Exchange; Ice Report. 5.25—Heinz-Georg Oertel (Organ). 5.50—Weather.
 HILVERSUM, 5.0—Orchestra (contd. from 4.40 p.m.). 5.40—Concert, conducted by Wms. Wien bleibt Wien. Schrammel. Weiberl und Weinderl (Fall). Silvia (Nissim). Melody (Mascheroni). Malia (Tosti). Nocturne (Tchaikovsky). Les derniers gouttes (Kratzky). Records. Musical Whimsies (Ketylberg).
 HUIZEN, 5.0—Talk on Gardening. 5.10—Orchestra, conducted by Gerritsen. Overture, "Le haruife chiozzotte" (Sinigaglia). Ballet Music, "Lakmé" (Delibes). Meditation, "Thais" (Massenet). Extracts, "Henry VIII" (German). 5.40—Records. 5.55—Orchestra. Overture, "Neil Gwynn" (German). Selection, "La Bohème" (Puccini). Two Norwegian Dances (Grieg). Two Icelandic Melodies (Svensen). Selection, "Sigurd Jorsalfar" (Grieg).
 KALUNDBORG, 5.0—Talk. 5.15—Elementary German Lesson. 5.45—Weather; Announcements.
 KAUNAS, 5.0—Records. 5.20—Song Recital. 5.40—News.
 LAHTI, 5.0—Weather. 5.10—News in Swedish; Weather. 5.15—Talks in Swedish.
 LANGENBERG, 5.0—For Young People. 5.25—English Conversation Lesson. 5.45—Exchange.
 LEIPZIG, 5.0—See Munich. 5.10—Talk. 5.30—Reading (Felix Dahn). 5.45—Exchange.
 MORAVSKA-OSTRAVA, 5.5—Tourist Report.
 MOSCOW (No. 1), 5.0—Communist Party Programme. 5.30—For Collective Farm Workers.

MUNICH, 5.0—Pianoforte, Violin, Flute and Clarinet. 5.10—An Interview with a Bookbinder. 5.30—Records. 5.45—Time; Announcements.
 LYONS (La Doua), 5.0—Song and Cello Recital.
 OSLO, 5.0—French Lesson. 5.30—To be announced.
 PARIS (Eiffel Tower), 5.45—News.
 PRAGUE (No. 1), 5.5—For Farmers. 5.15—Talk: Thrift. 5.25—German Transmission: Two Talks.
 RADIO—NORMANDIE, 5.30—Dance Music.
 ROME, 5.0—Wheat Market Report; Announcements. 5.25—For Farmers (in French, Spanish and German). 5.45—Shipping; Sports Notes. 5.50—Dopolavoro Notes.
 SOTTENS, 5.0—For Women. 5.30—Esperanto Lesson. 5.40—English Lesson.
 STOCKHOLM, 5.0—Records. 5.55—Talk on Foreign Politics.
 STRASBOURG, 5.0—Orchestra, conducted by Roskam. Two-step (Grothe). Waltz (Himmel). Selection, "A Waltz Dream" (Oscar Straus). Foxtrot (Pack-Rod). Thanks (Johnston and Coslow). Dialogue tendre (Gabriel Marie). Tango (Demaret). Boston (Hollaender). Japanese Intermezzo (Williams). Serenade (Pirson-Bery). El Capitan (Souza).
 STUTTGART, 5.0—Reminiscences of the Airmen Hünefeld and Plüschow. 5.25—Langenberg. 5.45—Time; Announcements.
 TURIN, 5.0 (approx.)—Weather; For Farmers; Market Prices; Snow Report; Geographical Society's Report. 5.50—Dopolavoro Announcements.
 VIENNA, 5.10—Talk: Ski-ing. 5.25—Sports Notes. 5.35—Talk on Art.
 WARSAW, 5.0—Talk. 5.20—Polish Music. Mazurka (Lewandowski). Couaiviennes (Dziegielski). Obertas (Suchocki). Polka (Miszczak). Oberek and Mazurka (Lewandowski). Polka (Dzierzanowski). Oberek (Suchocki). Dance (Miszczak). Waltz (Suchocki). Couaiviennes (Dzierzanowski). Polka.

6 p.m.

ALGIERS, 6.0—Request Records.
 ATHLONE, 6.0—For Children. 6.45—News.
 BARCELONA, 6.0—Trio Concert. In the Interval at 6.30: News.
 BERLIN, 6.0—See Breslau.
 BEROMÜNSTER, 6.0—Time; Weather; Market Prices; Tourist Report; Winter Sports Results. 6.25—Orchestra. 6.50—A Microphone Visit.
 BRATISLAVA, 6.5—For Housewives. 6.20—Slovak Lesson. 6.35—Accordion Recital.
 BRESLAU, 6.0—Transmission for all German Stations: Orchestra and Choir, conducted by Rischka. Aus tiefster Not schrei ich zu Dir (Bruck). Choral Intrade (Altenburg). Easter Symphony (Schütz). German Arias (Albert-Krieger). Extracts from the Toccata in D Minor for Organ (Bach). Hallelujah, "The Messiah" (Handel). Recitative and Aria, "Orpheus and Eurydice" (Gluck). Adagio from the Pianoforte Trio in G (Haydn). Finale from the Symphony in E Flat (Mozart).
 BRNO, 6.35—Choirs.
 BRUSSELS (No. 1), 6.0—Veterinary Talk. 6.15—Request Records. 6.30 Selection (vocal and instrumental) "La Mascotte" (Audran).
 BRUSSELS (No. 2), 6.0—Dance Music. 6.15—Talk: Animal Life in the Desert. 6.30—Records.
 BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Talk.
 BUDAPEST (No. 1), 6.15—Sports Notes. 6.30—Reading.
 DEUTSCHLANDSENDER, 6.0—See Breslau.
 FRANKFURT, 6.0—See Breslau.
 HAMBURG, 6.0—See Breslau.
 HEILSBURG, 6.0—See Breslau.
 HILVERSUM, 6.0—Concert (contd. from 5.40 p.m.). 6.20—Talk. 6.40—Concert conducted by Horst. Leo Fuld (Songs).
 HUIZEN, 6.0—Orchestra (contd. from 5.55 p.m.). 6.40—Police Notes. 6.55—Talk.
 KALUNDBORG, 6.0—News; Time. 6.20—Talk. 6.50—Programme by Per Knutzen.
 KAUNAS, 6.0—Announcements. 6.30—Orchestra.
 LAHTI, 6.0—Station Orchestra, conducted by Linko. 6.50—Humorous Items.
 LANGENBERG, 6.0—See Breslau.
 LEIPZIG, 6.0—See Breslau.
 LYONS (La Doua), 6.0—Dance Music. 6.15—News from Paris.
 MONTE CENERI, 6.15—News; Medical Talk. 6.30—Record: 6.45—News.
 MOSCOW (No. 1), 6.0—For Collective Farm Workers.
 MUNICH, 6.0—See Breslau.

OSLO, 6.0—Announcements. 6.15—News. 6.30—English Lesson.
 PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Theatre Review. 6.45—Topical Programme.
 PARIS (Poste Parisien), 6.45—Exchange. 6.48—For Farmers. 6.50—Record. 6.52—Talk.
 PARIS (Radio-Paris), 6.20—Weather; For Farmers; Exchange; Racing Results. 6.45—Assurance Societies' Reports.
 PRAGUE (No. 1), 6.0—Time; News in German. 6.5—Records. 6.10—News. 6.20—See Bratislava. 6.35—Talk: Rowing.
 PRAGUE (No. 2), 6.0—Time; For Housewives. 6.5—Records.
 RADIO-NORMANDIE, 6.0—Dance Music. 6.30—For Farmers. 6.45—Local News.
 ROME, 6.0—News in Foreign Languages. 6.30—Records. 6.50—News.
 SOTTENS, 6.0—English Lesson. 6.5—Bridge Lesson. 6.25—Chess Lesson. 6.45—Illustrated Talk: The History of Pianoforte Music. 6.59—Weather.
 STOCKHOLM, 6.0—Talk. 6.15—Weather; News. 6.30—Knut Almqvist (Flute) and Ingrid Kjellström (Harpichord). Harpichord Sonata in G (Grazioli). Sonata for Flute and Harpichord in A Minor (Bach). Harpichord Solos: (a) L'Aurore (Moret), (b) I Fantocini (Duny), (c) Allegro (P. E. Bach). Sonata for Flute and Harpichord in E Flat (J. S. Bach).
 STRASBOURG, 6.0—Trio Concert.
 STUTTGART, 6.0—Breslau.
 TOULOUSE, 6.0—News. 6.15—Viennese Orchestra. 6.30—Tourist Talk. 6.45—Operetta Music.
 TURIN, 6.0—Time; News in Foreign Languages. 6.30—Records. 6.50—Announcements; News; Weather.
 VIENNA, 6.0—Reading (Heralth). 6.25—Time; News. 6.35—"The Circle of Chalk"—Opera in Three Acts (Zemlinsky). Conductor: Leisner.
 WARSAW, 6.0—Announcements. 6.20—Hints for Holiday. 6.25—Topical Talk. 6.40—Sports Notes. 6.47—News.

7 p.m.

ALGIERS, 7.0—Exchange. 7.10—Shipping Notes. 7.45—Weather. 7.20—Variety Items. 7.30—Lottery Results. 7.40—Literary Review. 7.55—News.
 ATHLONE, 7.0—Gardening Talk. 7.15—Talk. 7.30—Station Orchestra.
 BARCELONA, 7.0—Request Records. 7.30—Exchange; Request Records.
 BARI, 7.0—News in Albanian.
 BERLIN, 7.0—News. 7.10—See Heilsberg.
 BEROMÜNSTER, 7.0—A Microphone Visit.
 BRATISLAVA, 7.50—Talk.
 BRESLAU, 7.0—News. 7.10—"The Craftsman in Opera and Song." The Philharmonic Orchestra and Kärshörner Choir. Glogner (Soprano). Schmidtman (Tenor). Gross (Baritone) and Andra (Bass).
 BRNO, 7.50—Reading.
 BRUSSELS (No. 1), 7.0—Records: The Aldershot Searchlight Tattoo. 7.15—Medical Talk. 7.30—Legal Report; Literary Review.
 BRUSSELS (No. 2), 7.0—Records. 7.15—Reading. 7.30—Wireless Notes.
 BUCHAREST, 7.0—The Philharmonic Orchestra, from the Romanian Athenaeum.
 BUDAPEST (No. 1), 7.0—Operetta Music. Overture, "Der Zigeunerprimas" (Kálmán). Air, "Paganini" (Lehár). Song (Huszka). Song, "The Gypsy Baron" (Joh. Strauss). Waltz, "Der Rastelbinder" (Eysler). Song "Der Rastelbinder" (Lehár). Selection, "Gipsy Love" (Lehár). Song (Marthon). Duet (Huszka). Duet (Marthon). Song and Duet from "Der Orloy" (Granichstädten). March (Weinberger).
 DEUTSCHLANDSENDER, 7.0—Motto; News. 7.10—Wireless Notes. 7.30—East German Programme for Young People.
 FRANKFURT, 7.0—Topical Talk. 7.10—See Stuttgart.
 HAMBURG, 7.0—Announcements. 7.10—See Heilsberg.
 HEILSBURG, 7.0—News. 7.10—"The Peasant in Purgatory"—Radio Opera (Arno Hufeld). The Station Orchestra conducted by Seidler.
 HILVERSUM, 7.0—Concert (contd. from 6.40 p.m.). 7.40—Talk.
 HUIZEN, 7.0—Talk. 7.20—Records. 7.25—Talk. 7.40—Records. 7.55—Press Review.
 KALUNDBORG, 7.0—Time from the Town Hall. 7.1—Relay of a Public Meeting: The Housing Problem.
 KAUNAS, 7.0—Talk: Music. 7.20—Reading. 7.40—Songs.

LAHTI, 7.0—Humorous Items. 7.5—Sibelius Concert from the Helsinki University. 7.45—News in Finnish.
 LANGENBERG, 7.0—Announcements. 7.10—"Evening Visitors"—Sequence of Old and New Poems (Christian Jensen).
 LEIPZIG, 7.0—News. 7.10—See Breslau.
 LYONS (La Doua), 7.30—Light Music. 7.40—Local News. 7.50—Talk.
 MADRID (EAJ7), 7.0—Chimes; Exchange: Announcements; For Women.
 MONTE CENERI, 7.0—"Le furie di Arlecchino" (Lualdi). 7.45—Talk.
 MUNICH, 7.0—News. 7.10—See Breslau.
 OSLO, 7.0—Time. 7.1—Symphony Concert.
 PALERMO, 7.0—Announcements. 7.20—Records. In the Interval: Time; News. 7.45—Co cert. Landolfi (Pianoforte); Hella Helt Di Gregorio (Soprano). In the Interval: Comedy (Lucia d'Ambr).
 PARIS (Eiffel Tower), 7.0—Topical Talk. 7.15—Weather; News. 7.30—Guillaume Lekeu. Concert: Conductor: Flament, with Commentary by André Delacour. Unfinished Quartet. Melody. Chanson de Mai. Les pavots.
 PARIS (Poste Parisien), 7.0—Records. 7.7—Talk on Music. 7.15—News. 7.30—New Records. 7.50—Records.
 PARIS (Radio-Paris), 7.0—Topical Talk. 7.30—Talk (Paul Landormy): Mozart's Operas.
 PRAGUE (No. 1), 7.0—Talk: Political Economy. 7.25—Wind Quintet in D (Foerster) by the Prague Wind Quintet. 7.50—Talk: Winter Sports.
 RADIO-NORMANDIE, 7.0—Request Programme.
 ROME, 7.0—Time; Announcements; Records. 7.30—Government Announcements. 7.40—Symphony Concert conducted by Natali. Second Symphony in D (Brahms). Selection, "L'Isola del sogno" (Natali). Fêtes (Debussy). Introduction, "Khovanstchina" (Mussorgsky). Selection, "Le Maschere" (Mascagni). In an Interval: Music Talk.
 SOTTENS, 7.0—The Ribaupierre Quartet, Vuillemin (Pianoforte). Quartet in D (Mozart). Quintet Op. 44 (Schumann).
 STOCKHOLM, 7.0—Time. 7.1—"The King"—Drama (Pär Lagerkvist) Music by Gösta Nyström.
 STRASBOURG, 7.0—Topical Talk in German. 7.15—Elocution Lesson. 7.30—Time; News. 7.45—Records.
 STUTTGART, 7.0—See Frankfurt. 7.10—"Swabian Folk Instruments"—Radio Pictures from Trossingen.
 TOULOUSE, 7.0—Overture, "Le roi d'Ys" (Lalo). 7.15—News; Exchange. 7.30—Medical Talk. 7.45—Opera Music. Arias, "The Tales of Hoffmann" (Offenbach). "Thais" (Massenet). "Carmen" (Bizet).
 TURIN, 7.0—Records. 7.30—Government Notices. 7.40—Records.
 VATICAN CITY, 7.0—Religious Information in Italian.
 VIENNA, 7.0—"The Circle of Chalk" (contd. from 6.35).
 WARSAW, 7.0—Great Thoughts. 7.2—Talk on Music. 7.15—Philharmonic Orchestra, conducted by Georgescu. Wanda Piasecka (Pianoforte). In the Interval: Reading.

8 p.m.

ALGIERS, 8.0—Time. 8.2—Maurice Chevalier Records. 8.25—News. 8.30—The Station Orchestra, conducted by Defosse.
 ATHLONE, 8.0—Mme. A. Heffernan (Soprano). 8.15—Debussy Pianoforte Recital. 8.30—James Cowhie (Tenor). 8.45—Traditional Fiddle.
 BARCELONA, 8.0—Records. 8.30—Educational Programme. 8.45—News.
 BERLIN, 8.0—See Heilsberg.
 BEROMÜNSTER, 8.0—A Microphone Visit. 8.10—Weather; News. 8.20—"Der Bauer geht um"—Radio Sequence in Eight Scenes (Ortner).
 BRESLAU, 8.0—Orchestra and Choir (contd. from 7.10 p.m.).
 BRUSSELS (No. 1), 8.0—Military Band and Soldiers' Songs. In the interval, Talk and News for Soldiers and Ex-Servicemen.
 BRUSSELS (No. 2), 8.0—Gala Concert. Overture, "Aeneis" (Uytenhove). Suite, James Ensor (Alpaerts). Songs. Rhapsody for Clarinet and Orchestra (Meulemans). Flemish Dance No. 5 (Blockx). Records. Overture, "Charlotte Cordray" (Benoit). Fantasia on Popular Flemish Airs (De Boeck). Songs. Extracts, "La mer" (Gilsou). De Vlaamsche Leeuw (Miry).

BUCHAREST, 8.0—Reading. 8.15—The Philharmonic Orchestra. 8.45—News.
 BUDAPEST (No. 1), 8.0—Operetta Music (contd. from 7.0). 8.40—News; Gypsy Music.
 DEUTSCHLANDSENDER, 8.0—See Stuttgart.
 FRANKFURT, 8.0—See Stuttgart.
 HAMBURG, 8.0—See Heilsberg.
 HEILSBURG, 8.0—"Spinning in East Prussia"—Radio Sequence (Borrmann-Treike).
 HILVERSUM, 8.0—Talk (contd. from 7.40). 8.10—Concert. 8.40—Talk.
 HUIZEN, 8.0—See Brussels (No. 2).
 KALUNDBORG, 8.0—Records. 8.20—"Men kina er kina"—Radio Play (Rüddner). 8.55—News.
 K A U N A S, 8.0—Talk. 8.20—Orchestra. 8.35—Talk. 8.55—Sports Notes.
 LAHTI, 8.0—News in Swedish.
 LANGENBERG, 8.0—See Stuttgart.
 LEIPZIG, 8.0—See Breslau 7.10.
 LYONS (La Doua), 8.0—Talk on Wine. 8.10—Tourist Talk. 8.20—Veterinary Talk. 8.30—Organ Recital by Lambert.
 MADRID (EAJ7), 8.0—For Women. 8.15—News.
 MADRID (EAQ), 8.0—Amusement Guide; Exchange; News. 8.10—Esperanto Lesson. 8.30—Concert.
 MONTE CENERI, 8.0—Concert.
 MOSCOW (No. 1), 8.55—Chimes.
 MUNICH, 8.0—See Breslau 7.10.
 OSLO, 8.0—Symphony Concert. 8.30—For Farmers. 8.40—Weather. 8.45—News.
 PALERMO, 8.0—Concert (contd. from 7.45 p.m.).
 PARIS (Eiffel Tower), 8.0—Lekeu Concert (contd. from 7.30 p.m.). 8.15—Political Announcements. 8.30—Lekeu Concert. Sonata for Violin and Pianoforte. Three Songs: (a) Sur une tombe, (b) Ronde, (c) Nocturne. Fantasia on Two Angevin Airs.
 PARIS (Poste Parisien), 8.0—Records. 8.10—The Station Symphony Orchestra, conductor: Mathieu. Overture, Parsifal (Wagner). Selection, "Les Erynnies" (Massenet). Overture (Rivier). Symphonic Poem (d'Indy). Scènes bretonnes (Ropartz). Ballet Suite from "Namouna" (Lalo).
 PARIS (Radio-Paris), 8.0—Readings. 8.30—News; Weather. 8.45—"Philemon and Baucis"—Opera in Two Acts (Gounod). In the Interval: News; Talk.
 PRAGUE (No. 1), 8.0—The Station Orchestra. Conductor: Parik. Overture, A Night on Karlstein (Fibich). Love Song (Suk). Prelude and Fugue (Weinberger). Zavadky (Zich). Waltz (Labicky). Polka (Modr).
 RADIO-NORMANDIE, 8.0—Concert. 8.30—Operetta Music. 8.45—Records.
 REYKJAVIK, 8.0—Light Music. 8.10—Weather. 8.20—Announcements. 8.25—Reading. 8.50—Announcements.
 ROME, 8.0—Symphony Concert (contd. from 7.40 p.m.). 8.45 (approx.)—Light Music.
 SOTTENS, 8.0—Dramatic Programme.
 STOCKHOLM, 8.0—"The King"—Drama (contd. from 7.1 p.m.). 8.30—Records of Mischa Elman. 8.45—Weather; News.
 STRASBOURG, 8.0—News in German; Lottery Results; Announcements. 8.30—Records. 8.55—News.
 STUTTGART, 8.0—The Station Orchestra conducted by Drost. Wilhelm Strienz (Songs). Italian Serenade (Wolf). Three Songs (Schubert): (a) Aufenthalt, (b) Der Wanderer, (c) Der Einsame. Armenian Suite (Unger). Two Ballads (Löwe): (a) Prince Eugen, (b) Tom the Rhymer.
 TOULOUSE, 8.0—Songs. 8.15—Military Music. 8.30—Sound Film Songs. 8.45—Instrumental Music. Serenade (Braga). Wiegeli (Schubert). Clair de lune, "Werther" (Massenet).
 TURIN, 8.0—Symphony Concert, conducted by Vittorio Gui. Gramigna (Violin). Semicoli (Tenor). The Pastoral Symphony (Beethoven). Concerto in G Minor (Vivaldi-Gentili). Two Pieces for Tenor and Orchestra (Mule): (a) Una notte a Taormina, (b) Fioriscono gli aranci. Two Pieces (Pergolesi-Gui). Overture, "Tannhäuser" (Wagner). In the Interval: Talk.
 VIENNA, 8.0—"The Circle of Chalk" (contd. from 6.35).
 W A R S A W, 8.0—Philharmonic Orchestra (contd. from 7.15 p.m.).

9 p.m.

ALGIERS, 9.0—News; Records. 9.10—Symphony No. 3—the Erica (Beethoven), by the Station Orchestra. 9.55—News.

FRIDAY Feb. 9

9 p.m. (contd.)

ATHLONE, 9.0—Nelly Walsh (Contralto). 9.10—Irish Music. 9.30—Variety.
 BARCELONA, 9.0—Chimes; Weather. 9.5—Announcements; Talk; Exchange. 9.10—Orchestra.
 BERLIN, 9.0—See 8.0 p.m. Heilsberg. 9.30—See Heilsberg.
 BEROMÜNSTER, 9.0—Radio Sequence (contd. from 8.20 p.m.).
 BRATISLAVA, 9.15—News in Hungarian.
 BRESLAU, 9.0—News. 9.20—Time; News. 9.35—The Symphony Orchestra, conducted by Mundry, and the Station Orchestra, conducted by Topitz. Overture, "Raymond" (Thomas). Waltz, The Blue Danube (Joh. Strauss). Selection, "La Traviata" (Verdi-Schreiner). Doloresa (Lindemann). Overture, "Fatinitza" (Suppé). Aquarellen-Walzer (Jos. Strauss). Selection, "The Bird Fancier" (Zeller). Romance for Vibraphone (Lühr). Selection, "Carmen" (Bizet). Waltz, Wiener Bürger (Ziehrer).
 BRUSSELS (No. 1), 9.0—Military Band and Soldiers' Songs (contd. from 8.0 p.m.).
 BRUSSELS (No. 2), 9.0—Gala Concert (contd. from 8.0 p.m.).
 BUDAPEST, 9.0—Cigány Music.
 DEUTSCHLANDSENDER, 9.0—News. 9.45—Weather.
 FRANKFURT, 9.0—Time; News. 9.15—Topical Talk. 9.25—News. 9.40—A Saar Poet: Karl August Doll.
 HAMBURG, 9.0—News. 9.30—See Heilsberg.
 HEILSBURG, 9.0—News. 9.30—Johann Strauss Concert. The Königsberg Opera House Orchestra. Conductor: Brückner. Overture, "The Gipsy Baron." Tales from the Vienna Woods. Selection, "Die Fledermaus." Trisch-Tratsch Polka. Kaiser-Walzer. Banditen-Galopp. Radetzky Marsch.
 HILVERSUM, 9.0—Talk. 9.10—Concert. 9.40—Ecclesiastical Notes; News. 9.55—Talk.
 HUIZEN, 9.0—See 8.0 p.m. Brussels (No. 2).
 KALUNDBORG, 9.0—News. 9.10—

Orchestra—Slav and Czech Music. Dances, "The Bartered Bride" (Smetana). Selection, "Halka" (Moniuszko). Two Extracts, the Slav Suite (Novak). Slav Dance (Mraczek). 9.50—Dance Music from the Palace Hotel.
 KAUNAS, 9.0—Orchestra.
 LANGENBERG, 9.0—Time; News. 9.20—Records.
 LEIPZIG, 9.0—News; Time. News. 9.25—Historic Marches The Mandoline Concert Society. Conductor: Schwarze. Landsknechtsmarsch (arr. Ritter). Prussian Military March No. 113. Old Dutch March. Swedish Cavalry March. Rakoczy March. Hoch und Deutschmeister-Marsch.
 LYONS (La Doua), 9.0—Organ. 9.15—Dance Music; News.
 MADRID (EAJ7), 9.30—Chimes; Time; News. 9.45 (approx.)—Extracts from Musical Comedy by the Station Choir, the Station Orchestra and Soloists. Conductor: José Alvarez Cantos.
 MOSCOW (No. 1), 9.0—Chimes. 9.5—International Broadcast.
 MUNICH, 9.0—Time; News.
 OSLO, 9.0—Topical Talk. 9.15—Orchestra.
 PALERMO, 9.0—Concert (contd. from 7.45 p.m.).
 PARIS (Poste Parisien), 9.0—Station Symphony Orchestra (contd. from 8.10).
 PARIS (Radio-Paris), 9.0—"Philémon et Baucis." (Gounod) (contd. from 8.45 p.m.). 9.30—News; Talk.
 PRAGUE (No. 1), 9.0—Time; News. 9.15—News in Russian.
 RADIO-NORMANDIE, 9.0—Concert.
 REYKJAVIK, 9.0—Chimes; News. 9.30—Variety.
 ROME, 9.0—Light Music.
 SOTTENS, 9.0—News; Weather. 9.10—Dance Music.
 STOCKHOLM, 9.0—The Gunnar Andersson Orchestra. Selection from "Värmlänningarna" (Randel). Fieldslaet (Grieg). Valse triste (Sibelius). Vid fontänen (Ottosen). Humoresque, No. 3 (Sjögren). Potpourri of Scandinavian Folk Songs (Anderberg). Wienermarsch (Kreiser). Selection, "The Prince Consort" (Schertzing). Piece (Warren).
 STRASBOURG, 9.0—Concert arranged by the Toulouse Concert Society, from the Théâtre Capitol, Toulouse.

STUTTGART, 9.0—Time; News 9.15—Talk; Things you should know. 9.25—News. 9.45—Records.
 TOULOUSE, 9.0—Concert Version, "William Tell" (Rossini). 9.30—Orchestra. Wedding Procession (Rimsky-Korsakov). Invitation to the Dance (Weber). Selection, "Le bourgeois gentilhomme" (R. Strauss). 9.45—Chansonnettes.
 TURIN, 9.0—Symphony Concert (contd. from 8.0 p.m.).
 VIENNA, 9.0—News. 9.20—The Vienna Chamber Orchestra. Conductor: Rudolf Pehm. Announcements.
 WARSAW, 9.0—Philharmonic Orchestra (contd. from 7.15 p.m.). 9.40—Dance Music from the Adria Café.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Irish Music.
 BARCELONA, 10.0—Violin Recital. 10.30—Cello Recital After the Programme: Records.
 BERLIN, 10.0—See 9.30 p.m. Heilsberg. 10.30—See Heilsberg.
 BRESLAU, 10.0—Orchestra. (contd. from 9.35 p.m.).
 BRUSSELS (No. 1), 10.0—News. 10.10—Request Records. 10.30—Records.
 BRUSSELS (No. 2), 10.0—News. 10.10—Commentary on the start of the Six Days' Race from the Palais des Sports, Antwerp.
 DEUTSCHLANDSENDER, 10.0—See 9.35 Breslau.
 FRANKFURT, 10.0—Leipzig. HAMBURG, 10.0—See 9.30 p.m. Heilsberg. 10.30—Dance Music.
 HEILSBURG, 10.0—Strauss Concert (contd. from 8.30 p.m.). 10.30—Dance Music. The Station Orchestra. Conductor: Wilcken.
 HILVERSUM, 10.0—Talk. 10.25—Records. 10.40—Records.
 HUIZEN, 10.0—Press Review. 10.15—Records.
 JUAN-LES-PINS (Radio Côte d'Azur) 10.30—International Transmission.
 KALUNDBORG, 10.0—Dance Music.
 LANGENBERG, 10.0—Chamber Music. Rudi Rhein (Violin), Ernst Grote and Robert Grote (Viola da Gamba), Alfred Sauerteig (Flute) and Hans Haass (Harpischord). Sonata for Flute, Viola da Gamba

and Harpsichord (Lotti). Chaconne for Two Violas da Gamba and Harpsichord (Kühnel). Andante and Allegro non troppo for Flute and Harpsichord (Leclair). Sonata for Harpsichord (Scarlatti). Concerto No. 5 for Violin, Viola da Gamba and Harpsichord (Rameau). Serenade and Rondo for Viola da Gamba and Harpsichord (Marais). Sonata for Flute, Two Violas da Gamba and Harpsichord (Telemann).
 LEIPZIG, 10.0—The Dresden Philharmonic Orchestra. Conductor: Ludwig Overture, Käthchen von Heilbronn (Pätzner). Sinfonia breve (Graener). Serenade in A (Brahms). Symphony in A (Haydn). Three Dances, "Céphale et Procris" (Grétry).
 MADRID (EAJ7), 10.0—Musical Comedy (contd. from 9.45).
 MADRID (EAQ), 10.30—Spanish Two-Steps; Norwegian Dances (Grieg). 10.45—News.
 MUNICH, 10.0—See 9.35 Breslau.
 PALERMO, 10.0—News.
 PARIS (Poste Parisien), 10.10—News; Exchange.
 PARIS (Radio-Paris), 10.0—"Philémon et Baucis." (Gounod) (contd. from 8.45 p.m.).
 PITTSBURGH, 10.0—Babe Ruth's Boy's Club. 10.15—KDKA Kiddies' Klub. 10.30—The Singing Lady, from New York. 10.45—Orphan Annie, from New York.
 RADIO-NORMANDIE, 10.0—Concert.
 REYKJAVIK, 10.0—Variety.
 ROME, 10.0—News.
 STRASBOURG, 10.0—Concert (contd. from 9.0).
 STUTTGART, 10.0—See Leipzig.
 TOULOUSE, 10.0—Accordion. 10.15—North African News. 10.30—Radio Report from the Medrano Circus.
 TURIN, 10.0—News.
 WARSAW, 10.0—News. 10.5—Dance Music.

11 p.m.

BARCELONA, 11.0—Records.
 BRESLAU, 11.0-11.30—Orchestra (contd. from 9.35).
 BRUSSELS (No. 1), 11.0—La Brabançonne.
 DEUTSCHLANDSENDER, 11.0-11.30—See Breslau.
 FRANKFURT, 11.0—Music in Nietzsche's Life.
 HILVERSUM, 11.0—Records.

HUIZEN, 11.0—Records.
 JUAN-LES-PINS (Radio-Côte d'Azur), 11.0—International Programme from Monte Carlo.
 KALUNDBORG, 11.0—Time and Chimes from the Town Hall. 11.2—Dance Music.
 LANGENBERG, 11.0—Chamber Music (contd. from 10.0 p.m.).
 LEIPZIG, 11.0—Orchestra (contd. from 10.0 p.m.).
 MADRID (EAJ7), 11.0—Musical Comedy (contd. from 9.45). 11.45—News; Announcements.
 MADRID (EAQ), 11.0—Spanish Music. 11.45—Light Music.
 PARIS (Radio-Paris), 11.0—"Philémon et Baucis." (Gounod) (contd. from 8.45 p.m.).
 PITTSBURGH, 11.0—News, Pat Haley. 11.15—Sports; Programme Preview. 11.30—KDKA Salon Orchestra. 11.45—Lowell Thomas from New York.
 RADIO-NORMANDIE, 11.0—Variety.
 STRASBOURG, 11.0—Concert (contd. from 9.0).
 STUTTGART, 11.0—See Frankfurt.
 TOULOUSE, 11.0—Orchestra. 11.15—Dance Music.

12 midnight

BARCELONA, 12.0—News.
 MADRID (EAJ7), 12.0—Chimes.
 MADRID (EAQ), 12.0—Variety.
 PITTSBURGH, 12.0—Amos 'n' Andy, from New York. 12.15 a.m. (Saturday)—Silver-toppers. 12.30—Potash and Perlmutter, from New York. 12.45—True Stories of the Sea.
 RADIO-NORMANDIE, 12.0—News in English. 12.15 a.m. (Saturday)—Light Music.
 SCHENECTADY, 12.45 a.m. (Saturday)—Stock Reports.
 TOULOUSE, 12.0—News. 12.5 a.m. (Saturday)—Opereita Music. Songs, "La belle Hélène" (Offenbach); "Mam'zelle Nitouche" (Hervey); "Un soir de Réveillon" (Moretti). 12.15—Orchestra. Overture, Carnaval romain (Berlioz). Academic Festival Overture (Brahms).

1 a.m. (Saturday)

RADIO-NORMANDIE, 1.0—News. 1.15—Dance Music.

2 a.m. (Saturday)

RADIO-NORMANDIE, 2.0—Dance Music.

SATURDAY (February 10)

NATIONAL

For Time Signals, see Monday 10.15 (Daventry)—Service.
 10.30 (Daventry)—Weather Forecast.
 10.45 (11.0)—"The Musical Switch-back." Mr. Philip Thornton.
 12.0 noon—The Western Studio Orchestra.
 12.45 p.m.—Records of Dance Music.
 1.15—The Commodore Grand Orchestra.
 2.15—Records. Miscellaneous Programme.
 2.45—Ireland v England. A running Commentary by W. P. Collopy on the International Rugby Match. By courtesy of the Irish Free State Broadcasting Service. Copyright.
 4.30—The Bernard Crook Quintet.
 5.15 (except Daventry)—The B.B.C. Dance Orchestra.
 5.15 (Daventry)—The Children's Hour.
 6.0—"The First News."
 6.25—Interlude.
 6.30—Sports Talk. Mr. Arthur Rowe: "Must it be Cup or League?"
 6.45 (except Daventry)—A Song Recital by Leonie Zifado (soprano).
 6.45 (Daventry)—Welsh Interlude. The Rev. Herbert Morgan: "The Old Order Changeth."
 7.5—7.25—"Mr. Pewter Works It Out." Mr. A. P. Herbert.
 7.30—In Town To-night.
 8.0—Music-Hall.
 9.0—"The Second News."
 9.20—"Seven Days' Hard." The Rt. Hon. The Lord Ponsonby.
 9.35—The Leslie Bridgewater Quintet. Eleanor Kaufman (mezzo-soprano).
 10.30—Reading from Charles Lamb, by Ivan Samson (To-day is the anniversary of the birth of Charles Lamb).
 10.35—(12.0) Daventry—Ambrose and his Embassy Club Orchestra.

REGIONAL

For Time Signals, see Monday 10.15 a.m.—2.45 p.m. (except Midland)—Daventry.
 2.45—Gramophone Records.
 3.0—Cinema Organ (Harold Ramsay).

3.30 (except Midland)—The Serge Krish Septet.
 3.30 (Midland)—Records.
 4.15—"Songs from the Shows."
 5.15—The Children's Hour.
 6.0—The First News.
 6.30 (London and Midland)—The Eugene Pini Tango Orchestra, Gerald Kassen (bass).
 6.30 (North)—The Studio Orchestra.
 6.30 (Scottish)—An Eye-Witness Account of a Third Round Cup Tie.
 6.30 (West)—Records.
 6.40 (Scottish)—London.
 6.45 (West)—Daventry National.
 7.0 (North)—The Yorkshire Mummies.
 7.5 (West)—Canu Penillion i Alawon Traddodiadol.
 7.15 (Midland)—"Where shall we go?" 1. The Central Hall.
 7.30 (London)—The Templars.
 7.30 (Scottish)—The Choral and Orchestral Union of Glasgow. Relayed from St. Andrew's Hall.
 7.30 (West)—Louis Dare (Tenor). Helen Guest (Pianoforte). Stainless Stephen.
 7.35 (Midland) (contd. from 7.15)—2. The Central Hall, Walsall. 7.55—3. The Central Hall, Birmingham.
 8.0 (London and North)—The B.B.C. Orchestra, conducted by Robert Heger. Ruzena Herlinger (Soprano).
 8.15 (West)—The Studio Orchestra. Hilda Blake (Soprano). Waltzes.
 8.20 (Midland)—The Opera House, Coventry. (Contd. from 7.15) 8.50—5—The Central Hall, Coventry.
 9.15 (ex. Scottish)—Ketilbey Concert. Nellie Walker (Contralto). Ashmoor Burch (Baritone). The Kingsway Hall Choral Society. The Band of H. M. Royal Horse Guards.
 9.40 (Scottish)—"The Week in Scotland."
 10.0 (Scottish)—Records.
 10.15—"The Second News."
 10.30 (except Midland and West)—Ambrose and his Orchestra.
 10.30 (Midland)—"The Week's Sport."
 10.30 (West)—Y Twydd a Newyddion y Dydd.
 10.35 (West)—Yvette Darnac.
 10.40 (Midland)—London.
 10.50 (West)—London.

EMPIRE SUMMARY

For wavelengths, see S.W. List
Transmission 1 (GSF, GSD)
 8.0 a.m.—Big Ben. Empire News and Announcements.
 8.20—Talk: "Foreign Affairs."* Mr. Vernon Bartlett.
 8.35—Dance Music.†
 9.0—"Looking Backwards."* A Review of the past month.
 9.30—Variety. 10.0—Close Down.
Transmission 2 (GSG, GSE)
 12 noon—Big Ben. The Western Studio Orchestra.
 12.45 p.m.—Dance Music.†
 1.15—The Commodore Grand Orchestra. 1.45—Close Down.
Transmission 3 (2-4 p.m. GSE, GSB; 4-6 p.m. GSB, GSA)
 2.0 p.m.—Big Ben. Empire News and Announcements.
 2.20—The Western Studio Orchestra. (Variety Acts between items).
 3.15—Dance Music.†
 3.50—Ireland v England. Commentary on the Rugby Football Match.
 4.30—The Bernard Crook Quintet.
 5.0—Empire News and Announcements (second reading).
 5.20—Talk: "Foreign Affairs."*
 5.35—The B.B.C. Dance Orchestra.
 6.0—Close Down.
Transmission 4 (6.15—7.45 p.m. GSD, GSB; 7.45—10.45 p.m. GSB, GSA)
 6.15 p.m.—Big Ben. Empire News and Announcements.
 6.35—Eugene Pini Tango Orchestra. Gerald Kassen (Bass).
 7.30—"In Town To-night."* A Topical Supplement to the Week's Programmes.
 8.0—Ireland v England.*
 8.50—Dance Music.†
 9.0—Talk: "Foreign Affairs."* Mr. Vernon Bartlett.
 9.15—Ketilbey Concert.
 10.15—Empire News and Announcements.
 10.35—Ambrose and his Orchestra. 10.45—Close Down.
Transmission 5 (GSC, GSA)
 11.0 p.m.—Big Ben. "Looking Backwards."*
 11.30—Ambrose and his Orchestra.
 12 midnight—Ireland v England.*
 12.45 a.m.—Empire News and Announcements. 1.0—Close Down.

* Electrical Recording.
 † Gramophone Records.

PRINCIPAL EVENTS

CONCERTS
 2.30 p.m. Kalundborg: Popular programme.
 3.0 " " Leipzig, Deutschlandsender: Symphony Orchestra.
 5.0 " " Brussels No. 1: Light orchestral.
 5.0 " " Strasbourg: Padeloup Concert.
 6.45 " " Kalundborg: String Orchestra.
 7.0 " " Oslo: Station Orchestra, Popular programme.
 7.15 " " Frankfurt, Stuttgart: Carnival programme.
 7.45 " " Stockholm: Old-Time Dances.
 7.55 " " Hilversum: "Anno 1900"—Variety programme.
 8.0 " " Brussels No. 2: Symphony Orchestra.
 8.0 " " Radio-Paris: Light music, orchestral and vocal.
 8.25 " " Hamburg, Berlin: "The Elbe Country."
 8.40 " " Beromünster: Symphony Concert from Basle.
 9.0 " " Vienna: Light orchestral.
OPERAS, OPERETTAS
 5.55 p.m. Vienna: "Manon" (Massenet), from State Opera House.
 7.0 " " Budapest: Relay of operetta première.
 7.10 " " Munich, etc.: "Die Fledermaus" (Strauss).
 7.20 " " Bratislava, Prague: "Paganini" (Lehár).
 7.50 " " Rome, etc.: "Cavalleria Rusticana" and "The History of a Pierrot."
 7.50 " " Turin, etc., Warsaw: "La Gioconda" (Ponchielli).
CHAMBER MUSIC
 7.0 p.m. Sottens: Quartets (Mozart, Brahms).
 8.30 " " Strasbourg: Sonatas (Franck, Beethoven, Fauré).
RECITALS
 7.0 p.m. Bucharest: Pianoforte and Song, (7.50).
 7.10 " " Warsaw: Chopin, Twelve preludes, etc.
PLAYS AND TALK
 7.30 p.m. Eiffel Tower: Comedy Programme.
 8.15 " " Brussels No. 1: "Waterloo" (radio play) (Fleischman).
 9.5 " " Sottens: "The Work of the League of Nations."
DANCE MUSIC
 9.0 p.m. Stockholm; 9.5, Poste Parisien; 9.20, Beromünster; 9.25, Sottens; 9.35, Munich, etc.; 9.45, Oslo; 10.0, Deutschlandsender: Radio Ball; 10.0, Kalundborg; 10.10, Brussels No. 1; 10.30, Strasbourg; 11.0, Hamburg, Berlin; Brussels No. 1: Carnival Ball.
MISCELLANEOUS
 2.45 p.m. Athlone: Rugby Match, Ireland v. England.

SATURDAY Feb. 10

NOTE: The Hours of Transmission are Reduced to Greenwich Mean Time

5 a.m.

BERLIN, 5.15—Gym. 5.30—Motto; Weather. 5.35—Military Band. BEROMÜNSTER, 5.30—Gym. BRESLAU, 5.25—Time; Weather. 5.30—Gym. 5.45—Records. BUDAPEST (No. 1), 5.45—Gym; Records. DEUTSCHLANDSENDER, 5.0—Weather; News; Gym. 5.30—Weather; Motto. 5.35—See Heilsberg. In an interval, News. FRANKFURT, 5.0—Choral; Time. 5.5—Gym. 5.30—Gym. 5.55—Time; News. HAMBURG, 5.0—Time; Announcements. 5.15—Gym. 5.30—Time; Weather. 5.35—See Heilsberg. In the interval, Time; News. HEILSBURG, 5.15—Gym. 5.35—Police Band. LANGENBERG, 5.0—Choral; Motto. 5.5—Concert. 5.40—Gym. LEIPZIG, 5.20—Gym. 5.45—Records. MOSCOW (No. 1), 5.15—Announcements. 5.30—Music. MUNICH, 5.30—Gym. 5.45—Hymn; Motto; Records. PRAGUE (No. 1), 5.15—Chimes; Gym; Music; News. SOTTENS, 5.55—Gym. STUTTGART, 5.0—Choir; Time; Weather. 5.5—Gym. 5.30—Gym. 5.55—Time; Announcements.

6 a.m.

BERLIN, 6.0—News. 6.15—Military Band. BRESLAU, 6.15—News; Time. 6.25—Orchestra. BUDAPEST (No. 1), 6.0—Records. DEUTSCHLANDSENDER, 6.0—See 5.35 Heilsberg. FRANKFURT, 6.5—Weather. 6.10—Records. HAMBURG, 6.0—See 5.35 Heilsberg. HEILSBURG, 6.0—Band (contd. from 5.35). KALUNDBORG, 6.0—Gym. LAHTI, 6.5—Service in Swedish. 6.30—Service in Finnish. LANGENBERG, 6.0—Time; News. 6.5—Choral; Records. LEIPZIG, 6.0—Records. 6.15—News; Time. 6.25—See Breslau. MOSCOW (No. 1), 6.0—Music. MUNICH, 6.0—Records. 6.15—Time; News. PARIS (Radio-Paris), 6.45—Gym. PRAGUE (No. 1), 6.0—Music; News. ROME, 6.45—Gym. STOCKHOLM, 6.20—Gym. 6.45—Morning Prayers. STUTTGART, 6.5—Weather. 6.10—Records. TURIN, 6.45—Gym. WARSAW, 6.0—Time; Sacred Song; Gym; Records; News; For Housewives.

7 a.m.

BARCELONA, 7.15—News; Records. BERLIN, 7.0—Gym. BRESLAU, 7.0—Orchestra. DEUTSCHLANDSENDER, 7.45—Gym for Women. FRANKFURT, 7.15—Tides; Snow Report; Weather. 7.25—Gym. HAMBURG, 7.0—Weather; For Housewives. 7.15—Wireless Notes; Ice Report. HEILSBURG, 7.0—Morning Prayers. 7.30—Gym. for Women. HILVERSUM, 7.40—Records. HUIZEN, 7.40—Records. KALUNDBORG, 7.30—Divine Service from the Cathedral. LANGENBERG, 7.0—Records. 7.15—Time; Announcements. 7.20—For Women. 7.30—Gym. for Women. LEIPZIG, 7.0—See Breslau. MOSCOW (No. 1), 7.15—For Children. MUNICH, 7.0—News. 7.25—Orchestra. PARIS (Poste, Parisien), 7.10—Farefare; Records. In the Interval: News; Talk for Housewives. PARIS (Radio-Paris), 7.0—Records. 7.15—News; Weather. 7.45—Gym. RADIO - NORMANDIE, 7.15—Records. 7.30—News. ROME, 7.0—Time; Announcements. STUTTGART, 7.0—Records. 7.15—Tides; Snow Report. 7.25—Gym. 7.45—For Farmers. TURIN, 7.0—Time; News. WARSAW, 7.0—Programme Announcements.

8 a.m.

BARCELONA, 8.0—Chimes; Gym; Records. 8.20—News; Records. BRESLAU, 8.0—For Housewives. 8.20—Time; News. BUDAPEST, 8.45—News. HEILSBURG, 8.5—For Schools. HILVERSUM, 8.0—Records. HUIZEN, 8.0—Records. KALUNDBORG, 8.0—Service. LEIPZIG, 8.0—For Housewives. 8.40—Exchange. 8.45—Announcements. LYONS (La Doua), 8.0—News and Weather. MADRID (EAJ7), 8.0—News. MOSCOW (No. 1), 8.55—Time. MUNICH, 8.0—See Breslau. PARIS (Radio-Paris), 8.0—Records. PRAGUE (No. 1), 8.50—News. RADIO-NORMANDIE, 8.0—Records. 8.15—Medical Talk. 8.30—Reading. TOULOUSE, 8.0—Dance Music. 8.30—News. 8.35—Viennese Orchestra. 8.45—Chansonnettes. VIENNA, 8.20—Market Prices. 8.30—Weather.

9 a.m.

BARCELONA, 9.0—In Memoriam. BERLIN, 9.0—Weather; News. 9.10—Exchange. 9.30—Records. BRATISLAVA, 9.10—News in Hungarian. BRESLAU, 9.40—For Children. BUDAPEST, 9.0—Topical Talk; Records. DEUTSCHLANDSENDER, 9.0—News. 9.10—For Schools. 9.50—For Children. FRANKFURT, 9.0—News. 9.10—For Schools. HAMBURG, 9.0—Records. 9.50—News. HEILSBURG, 9.0—Educational Talk. 9.40—News. 9.55—Weather. HILVERSUM, 9.0—Records. 9.40—Religious Programme. 9.55—Musical Programme. HUIZEN, 9.40—Records. LANGENBERG, 9.0—Time; News. 9.10—For Children. Western German Labour Report. MOSCOW (No. 1), 9.0—News. MUNICH, 9.40—For Farmers; Exchange. PRAGUE (No. 1), 9.5—News in German. 9.10—Records. STUTTGART, 9.0—News. 9.10—Records. VIENNA, 9.50—Tides.

10 a.m.

BERLIN, 10.0—Exchange. 10.30—Orchestra. BRATISLAVA, 10.0—Tides. BRESLAU, 10.40—Time; Weather; News. BRNO, 10.0—Records. 10.5—Orchestra. BUDAPEST (No. 1), 10.0—Records. 10.10—Tides. DEUTSCHLANDSENDER, 10.0—For Children. 10.15—Weather. 10.30—Discussion on the Chemical Industry. 10.50—Topical Talk. FRANKFURT, 10.0—Concert. 10.40—Programme Notes; News; Weather. HAMBURG, 10.0—Nature Talk for Children. 10.30—Orchestra. In the Interval: For Housewives; Announcements. HEILSBURG, 10.0—Ice Report. 10.5—For Farmers. 10.30—The Station Orchestra. Conductor: Wilcken. HILVERSUM, 10.0—Musical Programme. HUIZEN, 10.0—Records. KALUNDBORG, 10.0—Weather. 10.10—Fist Market Prices. 10.45—For Schools. LAHTI, 10.0—Exchange. 10.5—Music. 10.30—Exchange. 10.45—News. 10.59—Time; Weather. LANGENBERG, 10.0—For Schools. 10.30—Records. LEIPZIG, 10.0—Post Office Propaganda; Records. 10.40—Weather. 10.50—News; Time. LYONS (La Doua), 10.30—Concert. MOSCOW (No. 1), 10.15—Literary Programme. MUNICH, 10.0—Talk by a Young Peasant: My Village, Michelsdorf. 10.15—Time; News. 10.30—Post Office Propaganda; Records. OSLO, 10.15—Service. PRAGUE (No. 1), 10.0—See Brno. 10.55—For Farmers. RADIO - NORMANDIE, 10.0—Variety. STRASBOURG, 10.30—Orchestra. STUTTGART, 10.0—Records. 10.25—Post Office Propaganda; Variety. 10.55—Weather. TURIN, 10.15—Opera. Records. VATICAN CITY, 10.0—Religious Information in Various Languages.

VIENNA, 10.30—For Women. 10.55—Weather. WARSAW, 10.40—Press Review. 10.50—Theatre Review. 10.55—Time; Fanfare from St. Mary's Church, Cracow.

11 a.m.

BARCELONA, 11.0—Chimes; Weather. BERLIN, 11.0—Orchestra. 11.15—Weather. 11.20—Orchestra. BEROMÜNSTER, 11.0—Records; Cigány Music. 11.29—Time; Weather; News. 11.40—Records; Light Music. BRATISLAVA, 11.0—For Farmers. 11.10—News in Slovak. 11.20—Records. 11.35—Station Orchestra, conducted by Dyk. BRESLAU, 11.0—Orchestra. BRNO, 11.0—For Farmers. BUCHAREST, 11.0—Exchange; Tides; Records. BUDAPEST (No. 1), 11.0—Chimes. 11.5—Orchestra. Mme. Acs (Songs). Boriska Szelenyi (Violin). DEUTSCHLANDSENDER, 11.0—Weather. 11.10—For Schools. 11.55—Time. FRANKFURT, 11.0—Records. HAMBURG, 11.0—See Heilsberg. HEILSBURG, 11.0—Orchestra. HILVERSUM, 11.0—Musical Programme. 11.40—Orchestra, conducted by H. de Groot. Schlittenfahrt (Klose). Schweden singt und tanzt vor uns (Galits). The Skaters' Waltz (Waldeufel). Troika-Fahrt (Tchäikovsky). Scandinavian Melodies (Frederiksen). Records. Spanish March (Metallo). Exotic Suite (Delmas-Popy). Mondnacht in Rio de Janeiro (Wertheimer). Moroccan Marriage (Billi). O Sole mio (di Capua-Oscheidt). Cadiz (Valverde). Records. Hollandsche visschermeisjes (Fresco). Dutch National Dance (Siep). Naar buiten (Davids). Zandvoort bij de zee (Davids). In het biesch (Davids). Rotterdamse vlag (Verhallen). HUIZEN, 11.0—Records. 11.10—Religious Address. 11.40—Police Notes. 11.55—Orchestra, conducted by van 't Woud. Radetzky March (Joh. Strauss). Dance of the Marionettes (Gillet). La Feria (Lacombe). Roses from the South (Joh. Strauss). La boutique fantasque (Rossini - Respighi). Records. MONTE CENERI, 11.0—News; Orchestra. 11.29—Time Signal; Weather. 11.31—Records. 11.55—News. MUNICH, 11.0—See Leipzig. OSLO, 11.10—Exchange. 11.55—Time Signal. PRAGUE, 11.0—For Farmers. 11.10—Records. 11.25—News. 11.35—See Bratislava. RADIO - NORMANDIE, 11.0—Records. REYKJAVIK, 11.0—Weather. ROME, 11.30—Records. SOTTENS, 11.28—Time. 11.30—News; Weather. 11.40—Records. STOCKHOLM, 11.30—Weather; Ice Report. 11.45—Exchange. 11.55—Time. STUTTGART, 11.0—Records. TURIN, 11.0—Opera Records. 11.30—Records. 11.45—News. VIENNA, 11.0—The Volksoper Orchestra. Conductor: Dr. Philipp de la Cerda. WARSAW, 11.5—Dance Music. 11.30—Weather. 11.36—Dance Music. 11.55—News.

12 noon

ALGIERS, 12.30—Orchestra. BARCELONA, 12.0—For Women. 12.30—Letter-Box. 12.45—Records. BERLIN, 12—Records. 12.20—Light Music. BEROMÜNSTER, 12.0—Records. 12.15—Song Recital. 12.25—Time; Weather; Exchange. 12.30—Talk: The Week in the Federal Assembly. 12.45—Request Records. BRATISLAVA, 12.0—Orchestra (contd. from 11.35). 12.45—News in German and Hungarian.

BRESLAU, 12.0—Orchestra. 12.15—News. 12.25—Records. BRUSSELS (No. 1), 12.0—The Station Symphony Orchestra, conducted by Meulemans, E. Borgers (Tenor). Three Pieces (Coates): (a) Overture, "The Merry-makers." (b) Summer Days Suite, (c) Four Ways. Songs. Selection, "Maion" (Massenet). BRUSSELS (No. 2), 12.0—Orchestra. BUCHAREST, 12.0—News. 12.15—Records. BUDAPEST (No. 1), 12.30—Stephan Bertha's Orchestra. DEUTSCHLANDSENDER, 12.45—News. FRANKFURT, 12.0—Records. 12.15—Time; News. 12.25—News; Weather. 12.35—See Stuttgart. HAMBURG, 12.0—Exchange. 12.10—Weather. 12.30—Popular Music. HEILSBURG, 12.1—Time; Weather. 12.5—Records. HILVERSUM, 12.0—Orchestra (contd. from 11.40). HUIZEN, 12.0—Orchestra (contd. from 11.55 a.m.). JUAN-LES-PINS (Radio Côte D'Azur), 12.30—Amusement Guide; Variety. LANGENBERG, 12.0—Military Band. 12.45—Announcements. LEIPZIG, 12.0—Concert (contd. from 11.0). 12.15—News; Time. 12.25—Records; Light Music. LYONS (La Doua), 12.30—Concert. In the Interval: News. MADRID (EAJ7), 12.0—Chimes; News; Exchange; Announcements. 12.5—Time. MONTE CENERI, 12.0—News. 12.5—Dance Music. 12.20—Reading. 12.30—Snow Report; Road Report. 12.40—Records. MUNICH, 12.0—See 11.0 Leipzig. 12.15—Time; News. 12.25—Soprano and Tenor Recital of Viennese Songs. OSLO, 12.0—Records. In the Interval: Weather; For Farmers; Exchange. PARIS (Eiffel Tower), 12.30—Concert. PARIS (Poste Parisien), 12.0—Exchange. 12.5—Sound-Film Music. 12.20—News. 12.35—New Records. PARIS (Radio-Paris), 12.0—Orchestra. Alice in Wonderland (Towers). A Song without Words (Vening). Foxtrot (Petkere). Hungarian Fantasy. Waltz (Turner). We'll all go riding on a Rainbow (Woods). You ought to see Sally on Sunday (Woods). Foxtrot (Bates). My Hat's on the Side of my Head (Hulbert). Foxtrot (Johnston). Waltz (Gregory). Waila (Lange). Foxtrot (Davies). Foxtrot (Confrey). Foxtrot (Sarony). Mary-Rose (Davies). Foxtrot (Gay). At the End of the Day (Carr). Foxtrot (Hill). In the Interval: Exchange; News; Weather. PRAGUE (No. 1), 12.0—See Bratislava 12.35—Labour Market. 12.45—Records. 12.55—Exchange; Weather. RADIO - NORMANDIE, 12.0—Records. 12.30—News. 12.45—Concert. ROME, 12.0—Orchestra. In the Interval: News; Time; Announcements. SOTTENS, 12.0—Exchange. 12.5—Records. STRASBOURG, 12.0—Records. 12.45—News. STUTTGART, 12.0—Records. 12.15—Time; News; Weather. 12.35—Station Orchestra, conducted by Seyfert. March (Grütznert). Waltz (Ziehrer). Overture, "Carnival in Rome" (Joh. Strauss). Selection, "The Count of Luxembourg" (Lehár). Selection (Stolz). Potpourri (Dostal). TOULOUSE, 12.0—Argentine Orchestra. 12.15—Sound Film Songs. 12.30—News; Exchange. 12.45—Request Music. TURIN, 12.0—Time Announcements. 12.5—Trio. In the Interval: Records; Exchange. VIENNA, 12.0—Time; Weather; Announcements. 12.10—Concert

1 p.m.

ALGIERS, 1.0—Amusement Guide; News. 1.5—Station Orchestra. Cantabile (Spork). Selection, "Les bavards" (Offenbach). Alsatian Dances (Levadé). ATHLONE, 1.30—Time; Weather; Stock Report; Records. BARCELONA, 1.0—Records. 1.30—Theatre Notes; Records. BERLIN, 1.0—Light Music. 1.15—News. 1.35—Records. BEROMÜNSTER, 1.0—Book Review. 1.25—Records. 1.40—Educational Talk. BRESLAU, 1.0—News. 1.10—Time; Weather. 1.15—Post Office Propaganda; Records. 1.50—Exchange.

BRNO, 1.5—Market Prices. BRUSSELS (No. 1), 1.0—News. 1.10—The Station Orchestra, conducted by Leemans. BRUSSELS (No. 2), 1.0—News. 1.10—Symphony Orchestra. BUDAPEST (No. 1), 1.0—Orchestra. DEUTSCHLANDSENDER, 1.0—Records. FRANKFURT, 1.0—See 12.35 Stuttgart. 1.30—For Children. HAMBURG, 1.0—Popular Music. 1.15—News. 1.35—Records. HEILSBURG, 1.0—News. 1.10—Records. 1.30—Post Office Propaganda; Records. HILVERSUM, 1.0—Orchestra (contd. from 11.40). 1.40—Records. 1.25—Film Review. HUIZEN, 1.0—1.25—Orchestra (contd. from 11.55). 1.40—For Young People. JUAN-LES-PINS (Radio Côte D'Azur), 1.0—News. 1.15—Variety. KALUNDBORG, 1.0—String Ensemble (contd. from 11.2). 1.30—Records. LANGENBERG, 1.0—Records. LEIPZIG, 1.0—News; Announcements. 1.15—Book Review. 1.35—For Children. MUNICH, 1.0—Time; News. 1.25—Talk: The Mask throughout the Centuries. 1.45—"Carnival in Old Munich"—Radio Sequence. PARIS (Eiffel Tower), 1.0—Exchange. 1.15—Talk: Museums. 1.30—For Farmers. 1.45—Labour Market. PARIS (Poste Parisien), 1.0—Records. 1.5—Exchange. 1.15—Station Quintet. Overture, "Rip van Winkle" (Planquette). Serenade (Drigo). Canzonetta (Doneddu). Waltz (Dulaurens). Selection, "La Coarde de Mimi Pinson" (Goublier). Melody (Ewing). Un soir de fête à la Havane (Filippucci). Selection (O. Strauss). Künstlerleben (Joh. Strauss). PARIS (Radio-Paris), 1.0—Orchestra (contd. from 12.0). 1.20—Exchange; News. 1.45—Orchestra (contd.). PRAGUE (No. 1), 1.0—Exchange in German. PRAGUE (No. 2), 1.30—Sound Film Songs. 1.55—Educational Talk. REYKJAVIK, 1.15—Variety. ROME, 1.0—Orchestra. STRASBOURG, 1.0—Time. 1.2—Records. STUTTGART, 1.0—Concert (contd. from 12.35). 1.30—For Young People. TOULOUSE, 1.0—Amusement Guide; Market Prices. 1.15—Opera Music. 1.45—Orchestra. TURIN, 1.0—Trio (contd. from 12.5). 1.15-1.25—Exchange.

2 p.m.

ATHLONE, 2.45 (approx.)—International Rugby Match, Ireland v. England, from Dublin. BARCELONA, 2.0—Announcements. 2.5 (approx.)—Sextet Concert. Art Review in the Interval. BERLIN, 2.0—Exchange. 2.20—"Der schöne Nachmittag"—Radio Sequence (von Guionneau). BEROMÜNSTER, 2.0—Time. 2.30—Film Review. 2.40—Talk: Winter Relief Work. 2.45—Programme Announcements. BRNO, 2.45—Reading. BRUSSELS (No. 2), 2.0—Records: Extracts from Acts II and III. "Lucia di Lammermoor" (Donizetti). DEUTSCHLANDSENDER, 2.0—Weather; Exchange. 2.15—For Young People. 2.45—Economic Review. FRANKFURT, 2.10—Morse Lesson. 2.30—Weather. 2.40—Time; News. HAMBURG, 2.0—Exchange. 2.40—Announcements. 2.50—Ice Report. HEILSBURG, 2.0—Exchange. 2.20—Book Review. 2.30—For Girls. HILVERSUM, 2.40—Music Talk with Records. HUIZEN, 2.0—For Young People (contd. from 1.40). 2.10—For Children. KALUNDBORG, 2.0—For Children 2.30—Orchestra. Characteristic March (Schubert). Overture, "Ilka" (Doppler). Feuillettes de voyage (Schmidt). Overture, "La jolie parfumeuse" (Offenbach). March, "Sigurd Jorsalfar" (Grieg). Reading. Overture, "Mignon" (Thomas). Song (Hansen). Cantabile for Strings (Fris-Holm). Norwegian Rhapsody No. 1 (Svendсен). Two Pieces (Peterson-Berger). Marche lorraine (Ganne). LANGENBERG, 2.0—For Young People. 2.30—Exchange. 2.45—Reading. LEIPZIG, 2.0—Children's Programme (contd. from 1.35). 2.15—The Week's Review. 2.30—For Farmers. 2.45—Exchange.

SATURDAY Feb. 10

2 p.m. (contd.)

MADRID (EAJ7), 2.0—Chimes; Time; Weather; Theatre Notes. 2.15 (approx.)—Concert. In the Interval: Exchange.
MOSCOW (No. 1), 2.15—For Children. 2.55—Time.
MUNICH, 2.35—Weather; For Farmers. 2.50—Labour Market Report.
PARIS (Eiffel Tower), 2.0—Exchange. 2.15—Economic Notes. 2.30—Exchange; Announcements. 2.45—Theatre Notes; For Women.
PARIS (Poste Parisien), 2.0—Exchange.
PRAGUE (No. 2), 2.0—Educational Talk. 2.10—German Transmission: Foerster and Liszt Songs; Educational Talk. 2.50—News in German.
SOTTENS, 2.58—Time.
STRASBOURG, 2.0—Legal Talk in German. 2.15—Records.
STUTTGART, 2.0—For Young People (contd. from 1.30 p.m.). 2.10—Morse Lesson. 2.30—Mandoline Concert. March (Alfieri). Serenade (Mantini). Waltz (Pöhland). Gavotte (Mehlbeer). Spanish Dance (Ritter). Paraphrase (Graziani-Walter).
TOULOUSE, 2.0—News; Exchange.
VIENNA, 2.30—Time; Weather; Exchange. 2.40—Italian Lesson.
WARSAW, 2.25—News. 2.30—Exchange. 2.40—Marie Lestuzzi (Soprano). 2.56—Aviation Report and Anti-Gas Drill.

3 p.m.

BARCELONA, 3.0—For Invalids.
BARI, 3.30—For Children.
BERLIN, 3.0—Radio Sequence (contd. from 2.20 p.m.).
BEROMÜNSTER, 3.0—Concert.
BRATISLAVA, 3.50—"The Devil's Castle."
BRESLAU, 3.0—Orchestra.
BRUSSELS (No. 2), 3.0—Running Commentary on the Six Days' Racing, from Antwerp.
BUDAPEST (No. 1), 3.0—For Children.
DEUTSCHLANDSENDER, 3.0—See Leipzig.
FRANKFURT, 3.0—Concert.
HAMBURG, 3.0—See Berlin.
HEILSBURG, 3.0—See Berlin.
HILVERSUM, 3.0—Talk (contd. from 2.40 p.m.). 3.40—Mandoline Band. Overture, "Im Reiche des Indra" (Lincke). Serenade (Monti). In der Heinezmännchen-Bar (Rosen). Records. Black Eyes (Negri). Rendezvous (Aletter). Paris (Mezzacapo).
HUIZEN, 3.0—For Children (contd. from 2.10 p.m.). 3.40—The K.R.O. Boys. Conductor: Lustenhouwer.
KALUNDBORG, 3.0—Orchestra (contd. from 2.30 p.m.).
LAHTI, 3.0—Records.
LANGENBERG, 3.0—Dance Music. 3.50—Reading (Düppengieser).
LEIPZIG, 3.0—The Leipzig Symphony Orchestra, conducted by Weber. Lotte Theile (Soprano); Richard Klewitz (Baritone). Selection, "The Mastersingers" (Wagner). Four Baritone Solos: (a) Ich trag' in meinem Ranzen (b) Lied des Steinklopfers, (c) Zimmererspruch, (d) Schmiedelied. Die Jagd (Haydn). Four Soprano Solos: (a) Klöppellied, (b) Winzerinnenlied, (c) Spinnstubenlied, (d) Waschenfrauenlied. Overture, "Der Waffenschmied" (Lortzing). Four Baritone Solos: (a) Bergmannslied, (b) Der Bergmann im schwarzen Gewand, (c) Hobbellied, (d) Lied eines Schiffers. German Dances (Schubert). Four Songs: (a) Weblid, (b) Backlid, (c) Waschen und Plattlid, (d) Spinnlid. Selection, "The Barber of Bagdad" (Cornelius).
LYONS (La Doua), 3.0—Concert.
MADRID (EAJ7), 3.0—Concert. 3.40—News; Film Review. 3.50—News.
MONTE CENERI, 3.0—Violin Recital from the Kursaal, Lugano.
MORAVSKÁ - OSTRAVA, 3.0—Station Orchestra, conducted by Plichta. Selection, "Il Trovatore" (Verdi). Reminiscences (Dvořák). Humoresque (Levine). Slovak Song Poppourri (Hrbacek). Gavotte (Bortkiewicz). Polka (Moor).
MOSCOW, 3.0—News; Announcements.
MUNICH, 3.0—See Leipzig.
OSLO, 3.30—Records.
PARIS (Eiffel Tower), 3.0—News; Aviation Notes. 3.15—Exchange. 3.45—Tourist Talk in Esperanto.
PARIS (Poste Parisien), 3.15—Exchange. 3.45—Exchange.
PARIS (Radio-Paris), 3.0—For Children. 3.45—Exchange.

PRAGUE (No. 1), 3.0—See Moravská-Ostrava. 3.50—Talk: Russian Literature.
RADIO - NORMANDIE, 3.30—Variety.
ROME, 3.30—Children's Radio Review. 3.55—News.
SOTTENS, 3.0—Concert.
STOCKHOLM, 3.0—Light Music.
STRASBOURG, 3.0—Talk on Music.
STUTTGART, 3.0—See Berlin.
TRIESTE, 3.45—Bailla Programme.
TURIN, 3.35—News. 3.45—For Children.
VIENNA, 3.5—Talk: Felix Dahn, for the Centenary of his Birth. 3.30—Choral Concert. 3.55—Orchestra.
WARSAW, 3.0—For Invalids, from Lwów. 3.40—French Lesson. 3.55—Orchestra. Zabczynski (Songs). Melody (Blon). March (Lincke). Overture, "Im Reiche des Indra" (Lincke). Songs Selection, "Schön ist die Welt" (Lehar). Songs. Waltz, "The Dollar Princess" (Fall). Foxtrot (Stark-Gynaj). Tango (Albeniz). Le faucon (Namyslowski).

PARIS (Eiffel Tower), 4.0—Tourist Report; News. 4.15—Exchange.
PRAGUE (No. 1), 4.15—Literary Report. 4.25—Records. 4.35—Czech Lesson for Germans. 4.50—For Farmers.
REYKJAVIK, 4.0—Weather.
ROME, 4.0—News (contd. from 3.55 p.m.). 4.10—Instrumental Concert. Marcia notturna (Amadei). Per le vie di Siviglia (Lattuada). La Gran Via (Valverde). Foxtrot (Escobar). Selection, "Suor Angelica" (Puccini). Foxtrot (Ansaldo). Serenade (Barbi). One-step (Travaglia). 4.55—Weather.
SOTTENS, 4.0—Concert.
STOCKHOLM, 4.0—Weather. 4.5—Humorous Items. 4.30—Ballad Recital. 4.45—Reading (Mark Twain).
STRASBOURG, 4.0—Records.
STUTTGART, 4.0—See Berlin.
TOULOUSE, 4.15—News; Exchange.
TURIN, 4.0—For Women. 4.10—Dance Music. 4.55—Weather.
VIENNA, 4.0—Orchestra.
WARSAW, 4.0—Orchestra (contd. from 3.55 p.m.). 4.50—For Farmers.

by Georg Kniestadt (Violin), Wilhelm Berger (Horn) and Richard Klemm (Piano). 5.50—Weather.
HILVERSUM, 5.0—Records. 5.10—Concert. Si les femmes voulaient (Hubené). Sans amour (Borel-Clerq). Melody (Nissim). Sing a little low down Tune (Tobias). There's a Home in Wyomin' (Hill). Telephone (de Vita). Would you like to take a Walk (Dixon). Melody (Finck). Little Bluebird of my Heart (Grey). Piece (Schulenburg). Blue Moments (Fields). Melody (Gordon).
HUIZEN, 5.0—K.R.O. Boys (contd. from 4.40). 5.10—Esperanto Review. 5.25—K.R.O. Boys.
KALUNDBORG, 5.15—French Lesson. 5.45—Weather; Announcements.
KAUNAS, 5.0—Rifle Range Report. 5.30—Records. 5.40—News.
LAHTI, 5.0—Weather. 5.10—News in Swedish. 5.15—Station Orchestra, conducted by Linko. March (Teike). Overture, "Alessandro Stradella" (Plotow). Old Dances (Gröndahl). Serenade (Lange-Müller). Dance (Hoschna). Persian March (Strauss). 5.55—Talk.

bord de la grande Mer (Kazuro). Three Songs: (a) En pleine mer (Opieski), (b) Sur l'eau (Noskowski), (c) Les grandes eaux (Paderewski).

6 p.m.

ALGIERS, 6.0—Songs by a Cossack Choir. 6.30—Sports Talk. 6.45—Records.
ATHLONE, 6.0—Records. 6.45—News.
BARCELONA, 6.0—For Children (contd. from 5.30 p.m.). 6.30—News.
BERLIN, 6.0—See Deutschlandsender.
BEROMÜNSTER, 6.0—Chimes from Zurich Churches. 6.15—Time; Weather; Market Prices. 6.20—Ballad Recital.
BRATISLAVA, 6.5—For Housewives.
BRESLAU, 6.0—See Deutschlandsender.
BRUSSELS (No. 1), 6.0—Talk: The Egg Trade. 6.15—Song Recital by Raymond Maricq (Tenor). 6.30—Records.
BRUSSELS (No. 2), 6.0—Running Commentary on the Six Days' Racing from Antwerp. 6.15—Talk. 6.30—Orchestra.
BUCHAREST, 6.0—Educational Talk. 6.20—Records. 6.45—Talk.
BUDAPEST (No. 1), 6.0—Military Band. 6.15—News.
DEUTSCHLANDSENDER, 6.0—Transmission for all German Stations: "The Life and Deeds of Casper Larifari"—Radio Sequence (Alfred Prugel) after Count Poggi, with Incidental Music by Karl Knauer.
FRANKFURT, 6.0—See Deutschlandsender.
HEILSBURG, 6.0—See Deutschlandsender.
HILVERSUM, 6.0—The "De Wielewaal" Choir. In the Interval: Talk. 6.25—Talk. 6.40—Records. 6.55—Groningen Programme—Talk: Carillon Recital; Address.
HUIZEN, 6.0—Press Review. 6.25—Records. 6.40—Police Notes. 6.55—Legal Talk.
KALUNDBORG, 6.0—News. 6.30—Records of Famous Pianists. Alexander Brailowsky: Gnomenspejlen in F sharp minor (Liszt). Vladimir Horowitz: (a) Mazurka in C sharp minor (Chopin), (b) Gavotte (Prokofiev). Arthur de Greef: Danse villageoise (Grétry). William Murdoch: Tango (Albeniz-Godowsky). 6.45—String Orchestra. Intermezzi Goldoniani (Boschi). Sketches from Valencia (Chavarril).
KAUNAS, 6.0—Announcements. 6.30—Relay from the State Opera House. In the Intervals: Sports Notes.
LAHTI, 6.0—Talk. 6.10—Vocal Quartet. 6.30—Talk.
LANGENBERG, 6.0—See Deutschlandsender.
LEIPZIG, 6.0—See Deutschlandsender.
LYONS (La Doua), 6.0—Paseleoup Concert.
MADRID (EAQ), 6.0—Spanish Music.
MONTE CENERI, 6.15—News; Talk. 6.30—Records. 6.45—News.
MOSCOW (No. 1), 6.0—For Collective Farm Workers.
MUNICH, 6.0—See Deutschlandsender.
OSLO, 6.0—Announcements. 6.15—News. 6.30—Talk.
PARIS (Eiffel Tower), 6.0—Topical Review. 6.30—Lecture Recital: Pianoforte Music of Philippe Gaubert. 6.45—Topical Programme.
PARIS (Poste Parisien), 6.45—Exchange. 6.52—Theatre.
PARIS (Radio-Paris), 6.20—Weather; For Farmers; Exchange; Racing Results. 6.45—Records. Melody (Erwin). Song from "Le Million" (Parés-Van Parys). Song from "Un Homme en Habit" (Borel-Clerq-St. Granier). Un chien qui rapporte (Borchard).
PRAGUE (No. 1), 6.0—Time, News in German. 6.5—Records. 6.20—Talk. 6.35—Military Band, conducted by Stolz.
PRAGUE (No. 2), 6.0—Time; For Housewives. 6.5—Records. 6.35—Close Down.
RADIO-NORMANDIE, 6.45—Local News.
ROME, 6.0—News in Foreign Languages. 6.30—Records. 6.50—News.
SOTTENS, 6.0—Chimes. 6.5—Music Talk. 6.30—Wireless Notes. 6.59—Weather.
STOCKHOLM, 6.0—Records. 6.15—Weather; News. 6.30—Talk: Strange Peoples.



A German Carnival, such as Frankfurt and Stuttgart present in their programme this evening. [E.N.A.]

4 p.m.

BARCELONA, 4.0—News.
BERLIN, 4.0—"Hobbies for All"—Variety with Music.
BEROMÜNSTER, 4.0—Concert.
BRATISLAVA, 4.0—Puppet Play for Housewives. 4.55—Records.
BRESLAU, 4.0—Weather. 4.10—Orchestra. 4.30—See Leipzig.
BRNO, 4.25—Records.
BRUSSELS (No. 1), 4.45—Talk: Portland Cement.
BUCHAREST, 4.0—The Gică Ionesco Orchestra.
BUDAPEST, 4.0—Choral Concert. 4.45—Talk.
DEUTSCHLANDSENDER, 4.0—Sports Review. 4.20—Variety.
FRANKFURT, 4.0—Concert.
HAMBURG, 4.0—See Berlin.
HEILSBURG, 4.0—See 3.0 p.m. Berlin.
HILVERSUM, 4.0—Mandoline Band (contd. from 3.40 p.m.). 4.10—Organ. 4.40—Literary Talk.
HUIZEN, 4.0—K.R.O. Boys (contd. from 3.40 p.m.). 4.10—Writing Lesson. 4.40—The K.R.O. Boys.
KALUNDBORG, 4.0—Orchestra (contd. from 2.30 p.m.). 4.30—Exchange. 4.45—Talk: Cocain.
KAUNAS, 4.10—Women's Choir. 4.20—Talk. 4.40—Duets.
LAHTI, 4.0—Records. 4.10—Talks. 4.50—News in Finnish. 4.59—Time; Weather.
LANGENBERG, 4.0—Dance Music, conducted by Eysoldt.
LEIPZIG, 4.0—Concert (contd. from 3.0 p.m.). 4.30—Reading. 4.50—Pianoforte Recital by Blumer. Waltz (Schattmann). Extracts, "Humoresken" (Reger). Extracts, Bergamasques (Debussy). Waltz (Lange).
MONTE CENERI, 4.0—Violin Recital (contd. from 3.45 p.m.). 4.10—"Bells"—Concert. 4.30—Dramatic Programme.
MORAVSKÁ - OSTRAVA, 4.50—Talk.
MOSCOW (No. 1), 4.30—Communist Party Programme.
MUNICH, 4.0—See 3.0 p.m. Leipzig.
OSLO, 4.0—Records. 4.15—For Children.

5 p.m.

BARCELONA, 5.30—For Children.
BERLIN, 5.30—Talk: Berlin Variety.
BEROMÜNSTER, 5.0—Records. 5.30—Talk.
BRATISLAVA, 5.5—Topical Talk. 5.15—Hungarian Transmission.
BRESLAU, 5.0—See Leipzig. 5.10—Silesian Chimes. 5.20—Saturday Night in a Provincial Town. 5.50—Announcements.
BRNO, Literary Talk. 5.15—Theatre Notes; Records. 5.25—German Transmission: Song and Piano-forte Recital. Extract from Czech Dances (Smetana). Waltz (Brahms). Humoresque in C (Suk). Minuet (Suk). Aria, "Il Trovatore" (Verdi). Aria "Cavalleria Rusticana" (Mascagni).
BRUSSELS (No. 1), 5.0—The Radio Orchestra conducted by André Foxtrot (Chwat). Foxtrot (Blown). Sarabande for Violin and Orchestra (Lederer). Ballet, "The Bartered Bride" (Smetana). Melody (Basilevsky). Rondo for Violin and Orchestra (Wieniawsky). Ballet "Agnes dame galante" (Février). Suite orientale (Popy). Ballet, "Hérodiade" (Massenet).
BRUSSELS (No. 2), 5.0—Dance Music.
BUCHAREST, 5.0—News. 5.15—Orchestra.
BUDAPEST (No. 1), 5.0—Talk. 5.10—Military Band conducted by Fricsey.
DEUTSCHLANDSENDER, 5.0—A Poem. 5.5—Request Concert. 5.50—Chimes from St. Geron's Church, Cologne.
FRANKFURT, 5.0—Talk: Frontier Problems. 5.20—Week's Review. 5.35—To be announced. 5.45—Weather; News; Programme Notes; Time.
HAMBURG, 5.0—Reading (Georg Droste). 5.25—Military Programme. 5.40—Religious Address. 5.50—Weather.
HEILSBURG, 5.0—Roads Report. 5.5—Programme Notes. 5.15—Exchange; Ice Report. 5.25—Trio in D flat (Brahms) for Violin,

LANGENBERG, 5.0—Discussion by Two Smelting Works Employees. 5.30—Fiddle Solos. 5.45—Exchange.
LEIPZIG, 5.10—Talk by Dr. Heinrich Schwarz. 5.30—A Modern Dictionary.
LYONS (La Doua), 5.0—Paseleoup Concert relayed from Paris. After the Concert News from Paris.
MORAVSKÁ-OSTRAVA, 5.0—Records. 5.15—Topical Talk. 5.25—Russian Songs by the Cossack Balalaika Orchestra.
MOSCOW (No. 1), 5.0—Communist Party Programme. 5.30—For Collective Farm Workers.
MUNICH, 5.0—See 4.50 Leipzig. 5.10—For Young People. 5.50—Carnival News.
OSLO, 5.0—Parliamentary Notes. 5.15—Norwegian Music. 5.45—Talk on Economics.
PALERMO, 5.0—For Children.
PARIS (Eiffel Tower), 5.45—News.
PRAGUE (No. 1), 5.0—Talk. 5.10—German Transmission. Talk. 5.25—"The Wandering Scholar in Paradise"—Play (Sachs).
PRAGUE (No. 2), 5.50—Economics Talk.
RADIO-NORMANDIE, 5.30—Light Music.
ROME, 5.0—Wheat Market Report; Announcements. 5.40—Shipping; Sports Notes. 5.45—Morse. 5.50—Dopolavoro Announcements.
SOTTENS, 5.0—For Children. 5.20—For Young People. 5.40—Talk.
STOCKHOLM, 5.0—Reading. 5.15—Records.
STRASBOURG, 5.0—Paseleoup Concert from Paris.
STUTTGART, 5.0—See Berlin. 5.30—Talk. 5.50—Time; Weather.
TURIN, 5.0—For Farmers; Market Prices. 5.10—Snow Report. 5.15—Tourist Talk; Lottery Results. 5.50—Dopolavoro Announcements.
VIENNA, 5.0—Talk: A Doctor's Impressions of China. 5.25—Topical Talk. 5.45—Time; Weather. 5.55—"Manon"—Opera in Four Acts (Massenet), from the State Opera House.
WARSAW, 5.0—Talk. 5.20—The Warsaw Choir. Dobosz (Songs). Choir; Songs from the Cycle, Au

SATURDAY Feb 10

6 p.m. (contd.)

STRASBOURG, 6.0—Pasdeloup Concert from Paris.
STUTTGART, 6.0—See Deutschlandsender.
TOULOUSE, 6.0—News. 6.15—Instrumental Music. Overture, "Poet and Peasant" (Suppe). Andante (Debussy). Scherzo and Andante, Trio in D minor (Mendelssohn). 6.30—Opera Music. 6.45—Suite, "La Patrie" (Bizet).
TURIN, 6.0—Time; News in Foreign Languages. 6.30—Records. 6.50—Announcements; News; Weather.
VIENNA, 6.0—"Manon" (contd. from 5.55 p.m.).
WARSAW, 6.0—Announcements. 6.5—Variety. 6.25—Reading. 6.40—Sports Notes; News.

7 p.m.

ALGIERS, 7.0—Financial News. 7.10—Shipping Notes. 7.15—Weather. 7.20—Songs from Sound Films. 7.55—News.
ATHLONE, 7.0—Poetry.
BARCELONA, 7.0—Request Records; Exchange.
BARI, 7.0—News in Albanian.
BERLIN, 7.0—News. 7.10—See Hamburg.
BEROMÜNSTER, 7.0—Talk by Joachim Ringelnatz. 7.30—Records. 7.40—Dialect Play.
BRATISLAVA, 7.20—"Paganini"—Operetta in Three Acts (Lehár).
BRESLAU, 7.0—News. 7.10—See Munich.
BRUSSELS (No. 1), 7.0—Violin Recital by Mordant. Fantaisie rhapsodique (Dupuis). Poème héroïque (Jongen). 7.30—Science Review.
BRUSSELS (No. 2), 7.0—Orchestra (contd. from 6.30 p.m.). 7.15—Talk: Falling Stars. 7.30—For Farmers.
BUCHAREST, 7.0—Pianoforte Recital by Irma Schoenberg. Fantasia in C minor (Mozart). Prelude and Rigaudon (Ravel). Andante and Tango (Wolpe). Aragonese and Andalus (Falla). Song and Dance (Mihalovici). 7.30—Letter-Box. 7.50—Song Recital by Yvonne Demetriad.

8 p.m.

ALGIERS, 8.0—Time. 8.2—Lottery Results. 8.10—Talk: Safety First. 8.25—News. 8.30—Dance Music. 8.45—The Station Orchestra.
ATHLONE, 8.0—Concert. The Station Orchestra. 8.30—Play.
BARCELONA, 8.0—Records. 8.15—Talk; Records. 8.45—News.
BERLIN, 8.0—See 7.10 p.m. Hamburg.
BEROMÜNSTER, 8.0—Dialect Play. 8.25—Weather; News. 8.40 (approx.)—Part Relay of a Symphony Concert.
BRATISLAVA, 8.0—"Paganini" (Lehár) (contd. from 7.20 p.m.).
BRESLAU, 8.0—See 7.10 p.m. Munich.
BRUSSELS (No. 1), 8.0—1812 Overture (Tchaikovsky) on Records. 8.15—"Waterloo"—Radio Play (Fleischman).
BRUSSELS (No. 2), 8.0—Symphony Orchestra. Poth (Violin). Overture, Prometheus (Beethoven). Violin Concerto (Beethoven). Valses romantiques (Chabrier).
BUCHAREST, 8.0—Song Recital (contd. from 7.50 p.m.). 8.15—Viennese Music by the Schrammel Quartet. 8.45—News.
BUDAPEST (No. 1), 8.0—Operetta Relay.
DEUTSCHLANDSENDER, 8.0—Variety.
ERANKFURT, 8.0—"Carnival" (contd. from 7.15 p.m.).
HAMBURG, 8.0—"Deep Sea Fishing" (contd. from 7.10 p.m.). 8.25—"The Elbe Country"—Quartet, Orchestra and Soloists. Conductor: Gerhard Maass. Hamburg bleibt Hamburg (Vollstedt). Matrosen tanz (Ebonet). Rec. rec. (Martens-Hansen). Waltz, In Hamburg an der Elbe (Krome). Quartet: (a) Auf der Reeperbahn (Roberts), (b) Ich bin Kock, seggt he. Im Hotel zum lustigen Matrosen (Berger-Maass). Lower German Dances (Erdlen). Extracts, "1000 Jahre Hamburg" (Erdlen). Veerlannerleed. An de Alster, an de Elbe, an de Bill. Hamburg Gavotte (Czibulka). Aus Hamburgs Vergangenheit und Gegenwart (Vollstedt). In the interval: News.
HEILSBURG, 8.0—Military Programme (contd. from 7.10 p.m.). 8.10—Dance Music. The Station Orchestra and the Erich Börschel Dance Band.
HILVERSUM, 8.0—"Anno 1900"—Variety (contd. from 7.55 p.m.).

HUIZEN, 8.0—Records. 8.10—News. 8.15—Light Music. 8.25—Records. 8.40—Revue from a Theatre in Amsterdam.
JUAN-LES-PINS (Radio Côte d'Azur), 8.0—Amusement Guide; Exchange; News. 8.15—Film Review. 8.30—Concert.
KALUNDBORG, 8.0—A Students' Debate (contd. from 7.15 p.m.).
KAUNAS, 8.0—Opera (contd. from 6.30 p.m.).
LAHTI, 8.0—News in Swedish. 8.15—Dance Music.
LANGENBERG, 8.0—See 7.10 Munich.
LEIPZIG, 8.0—See Munich.
LYONS (La Doua), 8.0—Announcements. 8.10—Espéranto.
MADRID (EAJ7), 8.0—Dance Music. 8.15—News.
MONTE CENERI, 8.0—Programme by Gayroche. 8.15—Popular Concert.
MOSCOW (No. 1), 8.55—Chimes.
MUNICH, 8.0—"Die Fledermaus" (Strauss) (contd. from 7.10 p.m.).
OSLO, 8.40—Weather. 8.45—News.
PALERMO, 8.0—Operetta (contd. from 7.45 p.m.).
PARIS (Eiffel Tower), 8.0—Humorous Play (contd. from 7.30 p.m.).
PARIS (Poste Parisien), 8.0—News. 8.20—Concert. 8.40—Exchange.
PARIS (Radio-Paris), 8.0—Light Music, conducted by Maurice André. 8.30—News; Weather; Sports Notes; Review by Bonnaud. 8.45—Light Music (contd.).
PRAGUE (No. 1), 8.0—See 7.20 Bratislava.
RADIO-NORMANDIE, 8.0—Concert. 8.30—Orchestra.
REYKJAVIK, 8.10—Weather. 8.20—Announcements. 8.25—The Radio Trio. 8.50—Announcements.
ROME, 8.0—Opera (contd. from 7.50 p.m.).
SOTTENS, 8.0—Talk (contd. from 7.50 p.m.). 8.10—Variety.
STOCKHOLM, 8.0—Old-Time Dance Music. 8.30—Dialogue. 8.45—Weather; News.
STRASBOURG, 8.0—News in German, Lottery Results and Announcements. 8.30—Sonata Recital by Mme. Nathalie Radisse (Pianoforte) and Théophile Soudant (Violin). Sonata (Franck). Pianoforte Sonata in D minor (Beethoven). Sonata for Violin and Pianoforte (Faure).

STUTTGART, 8.0—See 7.15 Frankfurt.
TOULOUSE, 8.0—Chansonnettes; Operetta Music. 8.30—Orchestra. Trois petites pièces montées (Satie). Scènes alsaciennes (Massenet). Entry of the Gladiators (Fucik). Waltz (Fucik). 8.45—Sound Film Songs.
TURIN, 8.0—"La Gioconda" (contd. from 7.50 p.m.).
VIENNA, 8.0—"Manon" (contd. from 5.55 p.m.). 8.15—News; Announcements.
WARSAW, 8.0—"La Gioconda"—Opera (Ponchielli), relayed from the Scala, Milan. In the Interval: The Letter Box; Talk; News; Weather.

9 p.m.

ALGIERS, 9.0—News; Records. 9.55—News.
ATHLONE, 9.0—Violet Pearson (Soprano). 9.15—Uilleann Pipe Solos. 9.30—Variety.
BARCELONA, 9.0—Chimes; Weather. 9.5—Announcements; Exchange. 9.10—Educational Programme. 9.40—Orchestra.
BERLIN, 9.0—News. 9.20—See Hamburg.
BEROMÜNSTER, 9.0—Part Relay of a Symphony Concert. 9.20 (approx.)—Dance Records.
BRATISLAVA, 9.0—"Paganini" (Lehár) (contd. from 7.20). 9.35—News in Hungarian.
BRESLAU, 9.0—News. 9.20—Time; News. 9.35—See Munich.
BRUSSELS (No. 1), 9.0—Violin Interlude, Armand Mordant. 9.15—"Waterloo" (contd. from 8.15).
BRUSSELS (No. 2), 9.0—Commentary on the Six Days' Race from Antwerp. 9.15—Orchestra. Overture, "Rienzi" (Wagner). Suite, Aus Holbergs Zeit (Grieg). Symphonic Suite (Lelen). Hungarian Rhapsody No. 2 (Liszt).
BUCHAREST, 9.0—Light Music.
BUDAPEST (No. 1), 9.0—Operetta Relay. 9.30 (approx.)—Cigany Music.
DEUTSCHLANDSENDER, 9.0—News. 9.45—Weather.
FRANKFURT, 9.0—Time; News. 9.15—Weather; Sports Notes. 9.30—Carnival (contd. from 7.15).

HAMBURG, 9.0—Concert (contd. from 8.25). 9.50—Quartet. Orchestra and Soloists, conducted by Gerhard Maass.
HEILSBURG, 9.0—News. 9.10—Dance Music.
HILVERSUM, 9.0—"Anno 1900"—Variety (contd. from 7.55). 9.10—Recitations. 9.20—News. 9.25—Variety.
HUIZEN, 9.0—Revue (contd. from 8.40). 9.45—Concert. 9.55—Recitation.
JUAN-LES-PINS (Radio Côte d'Azur), 9.0—Weather. 9.15—Concert.
KALUNDBORG, 9.0—A Students' Debate (contd. from 7.15).
KAUNAS, 9.0—Opera (contd. from 6.30).
LAHTI, 9.0—Dance Music.
LANGENBERG, 9.0—Time; News. 9.25—See Munich.
LEIPZIG, 9.0—News; Time. 9.15—News. 9.25—See Munich.
MADRID (EAJ7), 9.30—Chimes; Time; News. 9.45 (approx.)—Dramatic Programme followed by Flamenco Songs.
MONTE CENERI, 9.0—Popular Concert (contd. from 8.15). 9.15—Station Dance Band and Manfrin (Tenor).
MORAVSKÁ-OSTRAVA, 9.50—Station Orchestra conducted by Musil. Overture, "Die Landstreicher" (Zichrer). Waltz, "Die keusche Barbara" (Nedbal). Romantic Suite (Armandola). Potpourri of Modern Dances (Dostal). Tango (Palka). Polka (Sykorau-Aust). March (Lampel).
MOSCOW (No. 1), 9.0—Chimes. 9.5—International Broadcast.
MUNICH, 9.0—Time; News. 9.35—Station Orchestra conducted by Kloss, and Station Dance Band conducted by Aulich.
OSLO, 9.0—Topical Talk. 9.15—Variety. 9.45—Dance Records.
PALERMO, 9.0—Operetta (contd. from 7.45 p.m.).
PARIS (Poste Parisien), 9.5—Dance Music; Songs.
PARIS (Radio-Paris), 9.0—Light Music.
PRAGUE (No. 1), 9.0—See 7.20 Bratislava. 9.20—News. 9.35—Records. 9.50—See Moravská-Ostrava.
RADIO-NORMANDIE, 9.0—Concert.
REYKJAVIK, 9.0—Chimes; News. 9.30—Reading.
ROME, 9.0—Opera (contd. from 7.50).
SOTTENS, 9.0—News; Weather. 9.5—League of Nations Report. 9.25 (approx.)—Dance Music.
STOCKHOLM, 9.0—Dance Music by the Sjöborg Orchestra.
STRASBOURG, 9.0—Sonata Recital (contd. from 8.30 p.m.). 9.30—News. 9.45 (approx.)—Sonata Recital (contd. from 8.30).
STUTTGART, 9.0—News; Weather; Sports Notes. 9.30—See 7.15 Frankfurt.
TOULOUSE, 9.0—Variety. 9.30—Opera Arias, "Louise" (Charpentier), "Sappho" (Massenet), "Manon" (Massenet), "Don Quixote" (Massenet). 9.45—Orchestra.
TURIN, 9.0—Book Review. 9.10—Dance Music. 10.0—News.
VIENNA, 9.0—The "Wiener Symphoniker." Conductor: Josef Holzer. March, Uns geht's gut (Stilp). Overture, "Der Schatzmeister" (Zichrer). Viennese Song (Komzak). Selection, "White Horse Inn" (Benatzky). Röslein im Hag (André). Leis und sheu (André). Ballet Overture (Lincke). March Intermezzo, Die Bremer Stadtmusikanten (Krome). Waltz, Die letzten Tropfen (Kratzl). Potpourri, Heut' ist heut' (Recktenwald). Announcements.
WARSAW, 9.0—"La Gioconda"—(Ponchielli) from Milan (contd. from 8.0).

HAMBURG, 10.0—Quartet, Orchestra and Soloists (contd. from 9.50).
HEILSBURG, 10.0—Dance Music.
HILVERSUM, 10.0—Variety (contd. from 9.25). 10.55—Records.
HUIZEN, 10.0—Recitation. 10.10—News. 10.15—Concert. 10.25—Records.
KALUNDBORG, 10.0—Dance Music from the Ritz Restaurant.
LANGENBERG, 10.0—See 9.25 Munich.
LEIPZIG, 10.0—See Munich.
MADRID (EAJ7), 10.0—Dramatic Programme.
MADRID (EAQ), 10.30—Spanish Music. 10.45—News.
MUNICH, 10.0—Orchestra and Dance Band (contd. from 9.25).
OSLO, 10.0—Dance Records.
PALERMO, 10.0—News.
PARIS (Poste Parisien), 10.0—News; Exchange.
PARIS (Radio-Paris), 10.0—Light Music.
PITTSBURGH, 10.0—Uncle Tom and Betty. 10.15—Bobby and Sue—Helen Irwin. 10.30—A Recreo—Bill and Alex. 10.45—Orphan Annie, from New York.
RADIO-NORMANDIE, 10.0—Concert.
REYKJAVIK, 10.0—Choral Records. Dance Music.
ROME, 10.0—Opera (contd. from 7.50).
SOTTENS, 10.0—Dance Music.
STRASBOURG, 10.0—Sonata (contd. from 8.30). 10.30—Dance Music.
STUTTGART, 10.0—See 7.15 Frankfurt.
TOULOUSE, 10.0—Argentine Orchestra. 10.15—North African News. 10.30—Viennese Music. 10.45—Arias, "Don Giovanni" (Mozart), "Hamlet" (Thomas), "Les Huguenots" (Meyerbeer), "Messaline" (de Lara).
WARSAW, 10.0—"La Gioconda" (Ponchielli) (contd. from 8.0).

11 p.m.

BARCELONA, 11.0—Dramatic Programme (contd. from 10.15).
BERLIN, 11.0—See Hamburg.
BRUSSELS (No. 1), 11.0—Carnival Ball from the Théâtre Royal de la Monnaie. In the Interval: Records.
BRUSSELS (No. 2), 11.0—Programme from the Palais des Sports, Antwerp.
DEUTSCHLANDSENDER, 11.0—Radio Ball (contd. from 10.0).
FRANKFURT, 11.0—Concert.
HAMBURG, 11.0—Dance Music by the Francesco Scarpa Band.
HILVERSUM, 11.0—Records.
HUIZEN, 11.0—Concert (contd. from 10.15).
KALUNDBORG, 11.0—Time; Chimes from the Town Hall. 11.2—Dance Music.
LANGENBERG, 11.0—See 9.25 Munich.
LEIPZIG, 11.0—See 9.25 Munich.
MADRID (EAJ7), 11.0—Flamenco Songs. 11.45—News.
MADRID (EAQ), 11.0—Popular Music. 11.45—Light Music.
MUNICH, 11.0—Orchestra and Dance Band (contd. from 9.25).
PITTSBURGH, 11.0—News; Pat Haley. 11.15—Sports; Programme Preview. 11.30—Mary Small, from New York. 11.45—Captain Al Williams, from New York.
RADIO-NORMANDIE, 11.0—Variety.
REYKJAVIK, 11.0—Dance Music.
STRASBOURG, 11.0—Dance Music.
STUTTGART, 11.0—Concert.
TOULOUSE, 11.0—Request Music. 11.15—Dance Music.

12 midnight

BARCELONA, 12.0—News.
BRUSSELS (No. 1), 12.0—Carnival Ball (contd. from 11.0).
BRUSSELS (No. 2), 12.0—Running Commentary on the Six Days' Racing from the Palais des Sports, Antwerp.
FRANKFURT, 12.0—Concert.
LANGENBERG, 12.0—Records.
MADRID (EAJ7), 12.0—Chimes.
MADRID (EAQ), 12.0—Variety.
PITTSBURGH, 12.0—Charley Gaylord's Orchestra. 12.30 (Sunday)—F.O.B. Detroit, from New York.
RADIO-NORMANDIE, 12.0—News in English. 12.15 (Sunday)—Light Music.
REYKJAVIK, 12.0—Dance Music.
SCHENECTADY, 12.45 (Sunday)—Stock Reports.
STUTTGART, 12.0—Concert.
TOULOUSE, 12.0—News. 12.45 (Sunday)—Variety. 12.45—Cinema Organ.
BARCELONA, 1.0 (Sunday)—Variety.
RADIO-NORMANDIE 1.0 (Sunday)—News. 1.15—Dance Music.
RADIO-NORMANDIE, 2.0 (Sunday)—Dance Music.

10 p.m.

ATHLONE, 10.0—Variety. 10.30—Time; News; Weather. 10.40—Vocal and Instrumental Music.
BARCELONA, 10.0—Orchestra. 10.15—Dramatic Programme: (a) "Els Tres Toms"—Comedy in One Act (Narciso Campmany), (b) "L'Agencia d'Informes Comercials"—Musical Farce in One Act (Pompeyo Gener).
BERLIN, 10.0—See 9.50 Hamburg.
BRUSSELS (No. 1), 10.0—News. 10.10—Dance Music.
BRUSSELS (No. 2), 10.0—News. 10.10—Programme from the Palais des Sports, Antwerp.
DEUTSCHLANDSENDER, 10.0—Radio Ball from the Krollfestsaalen. The Otto Kernbach Orchestra, the Theo Held Orchestra and Soloists.
FRANKFURT, 10.0—Carnival (contd. from 7.15).

7.20—Records. In the Interval: Sports; Time; Announcements. 7.45—An Operetta. In the Interval: Talk; Book Review.
PARIS (Eiffel Tower), 7.0—Topical Programme. 7.15—Weather; News. 7.30—"Un grand mariage sous le Second Empire"—Humorous Play (George Delamare).
PARIS (Poste-Parisien), Talk. 7.0—Records. 7.15—News. 7.30—The "Folies-Bergère."
PARIS (Radio-Paris), 7.0—Topical Talk. 7.30—Talk: Manon Lescaut in Fact and Fiction. 7.50—Latin Press Review; News.
PRAGUE (No. 1), 7.20—See Bratislava.
RADIO-NORMANDIE, 7.0—Request Programme.
REYKJAVIK, 7.45—For Children.
ROME, 7.0—Announcements; Records. 7.50—"Cavalleria Rusticana" (Mascagni), "The Story of a Pierrot" (Costa), from the Teatro Reale. News and Talk in the interval.
SOTTENS, 7.0—The Appia Quartet. Quartet in B flat (Mozart). Quartet in A minor (Brahms). 7.50—Talk: Parmelin's Ascent of Mont Blanc in 1914.
STOCKHOLM, 7.0—Time. 7.1—Variety. 7.45—Old-Time Dance Music.
STRASBOURG, 7.0—French Lesson. 7.15—For Farmers. 7.30—Time and News. 7.45—Records.
STUTTGART, 7.0—News. 7.15—See Frankfurt.
TOULOUSE, 7.0—Songs. 7.15—News; Exchange. 7.30—Military Music. 7.45—Russian Songs and Balalaika Music.
TURIN, 7.0—Records. 7.30—Government Notices. 7.50—"La Gioconda" (Ponchielli) from La Scala, Milan. News in the interval.
VATICAN CITY, 7.0—Religious Information in Italian.
VIENNA, 7.0—"Manon" (contd. from 5.55 p.m.).
WARSAW, 7.0—Motto; Records. 7.10—Chopin. Pianoforte Music. Polonaise in A. Ballad in G. Twelve Preludes. Two Waltzes.

ALGIERS, 8.0—Time. 8.2—Lottery Results. 8.10—Talk: Safety First. 8.25—News. 8.30—Dance Music. 8.45—The Station Orchestra.
ATHLONE, 8.0—Concert. The Station Orchestra. 8.30—Play.
BARCELONA, 8.0—Records. 8.15—Talk; Records. 8.45—News.
BERLIN, 8.0—See 7.10 p.m. Hamburg.
BEROMÜNSTER, 8.0—Dialect Play. 8.25—Weather; News. 8.40 (approx.)—Part Relay of a Symphony Concert.
BRATISLAVA, 8.0—"Paganini" (Lehár) (contd. from 7.20 p.m.).
BRESLAU, 8.0—See 7.10 p.m. Munich.
BRUSSELS (No. 1), 8.0—1812 Overture (Tchaikovsky) on Records. 8.15—"Waterloo"—Radio Play (Fleischman).
BRUSSELS (No. 2), 8.0—Symphony Orchestra. Poth (Violin). Overture, Prometheus (Beethoven). Violin Concerto (Beethoven). Valses romantiques (Chabrier).
BUCHAREST, 8.0—Song Recital (contd. from 7.50 p.m.). 8.15—Viennese Music by the Schrammel Quartet. 8.45—News.
BUDAPEST (No. 1), 8.0—Operetta Relay.
DEUTSCHLANDSENDER, 8.0—Variety.
ERANKFURT, 8.0—"Carnival" (contd. from 7.15 p.m.).
HAMBURG, 8.0—"Deep Sea Fishing" (contd. from 7.10 p.m.). 8.25—"The Elbe Country"—Quartet, Orchestra and Soloists. Conductor: Gerhard Maass. Hamburg bleibt Hamburg (Vollstedt). Matrosen tanz (Ebonet). Rec. rec. (Martens-Hansen). Waltz, In Hamburg an der Elbe (Krome). Quartet: (a) Auf der Reeperbahn (Roberts), (b) Ich bin Kock, seggt he. Im Hotel zum lustigen Matrosen (Berger-Maass). Lower German Dances (Erdlen). Extracts, "1000 Jahre Hamburg" (Erdlen). Veerlannerleed. An de Alster, an de Elbe, an de Bill. Hamburg Gavotte (Czibulka). Aus Hamburgs Vergangenheit und Gegenwart (Vollstedt). In the interval: News.
HEILSBURG, 8.0—Military Programme (contd. from 7.10 p.m.). 8.10—Dance Music. The Station Orchestra and the Erich Börschel Dance Band.
HILVERSUM, 8.0—"Anno 1900"—Variety (contd. from 7.55 p.m.).

ROBOT RADIO BEACONS

SOME of the replies to queries in the "Which Station Was That?" column indicate that a good many listeners are mystified as to the origin and purport of the curious morse signals to be heard on wavelengths in the vicinity of 1,000 metres. This portion of the long waveband is used by radio beacons, and the signals in question emanate from the numerous beacon transmitters that have been established, during the past few years, at various points around the coastline of the British Isles and other sea-bordered countries.

Radio beacon signals are of the greatest practical utility as an aid to navigation, especially in foggy weather or periods of bad visibility, since they form reliable transmissions on which wireless bearings may be taken by an observer on board a ship or aircraft in order to ascertain his exact whereabouts.

The transmitting equipment at a radio beacon station is of a "robot" description, so to speak, being controlled automatically by ingenious timing devices. These switch the transmitter on and off in accordance with a precise schedule, and cause repetitions of the characteristic morse signals to be emitted at intervals throughout the day and night.

The British radio beacons are of two kinds—fixed and rotating. The former type radiates its signals broadcast in all directions, and the strength of reception at any given place within normal range of the beacon remains constant (unless affected by natural fading). In the case of the rotating type, however, the signal-strength at any given receiving place rises and falls, reaching states of maximum and of minimum intensity twice during each minute of transmission. This is due to the use of a special type of rotating loop aerial, the purpose of which will be clear later.

Bearings on the radio beacons of the fixed type can be taken only with direction-finding apparatus. The rotating-aerial type of beacon, on the other hand, possesses the decided advantage of enabling reasonably accurate bearings to be taken with the aid of an ordinary receiving set used in conjunction with a reliable stop-watch or chronograph.

The characteristic signals transmitted from all the British radio beacons listed below include a number of repetitions of their call-signs, so that anyone who knows a "smattering" of morse can easily identify beacons heard, by referring to the following lists:—

(A) Lighthouse Radio Beacons

| | | |
|-----|-------------------------------|----------|
| GCM | Les Casquets, Channel Islands | 960 m. |
| GDM | Dungeness | 979 m. |
| GGB | South Bishop | 942 m. |
| GGC | Mull of Cantyre | 1,008 m. |
| GGG | Round Island, Scilly Isles | 1,019 m. |
| GGJ | Lundy Island | 942 m. |
| GJK | Skerries, Holyhead Bay | 979 m. |
| GSM | Start Point, Devon | 960 m. |
| MBG | Butt of Lewis | 988 m. |
| MMC | Cromer | 1,029 m. |
| MMF | North Foreland, Kent | 1,008 m. |
| MMK | Kinnaird Head | 1,019 m. |
| MMM | May Island | 1,019 m. |
| MNG | North Ronaldshay | 1,019 m. |
| MSG | Sule Skerry, Orkney Islands | 988 m. |

(B) Lightship Radio Beacons

| | | |
|-----|-------------------------------|----------|
| GGM | Bar Lightship, Liverpool | 979 m. |
| MEG | East Goodwin Lightship | 1,008 m. |
| MMH | Spurn Lightship, River Humber | 988 m. |

(C) Rotating-loop Radio Beacons

| | | |
|-----|------------|----------|
| GFP | Orfordness | 1,040 m. |
| GFT | Tangmere | 1,040 m. |

(The wavelengths given are those which will be in force from January 1st, 1934, onwards.)

In the transmissions from British radio beacons of the "fixed" type, the call-signs are sent out a number of times, with prolonged dashes interpolated, as in the following typical example of the signals from the Dungeness beacon:—

GDM GDM GDM, etc. (repeated about nineteen times).

A prolonged dash (—).

GDM GDM GDM, etc.

Another prolonged dash (—).
GDM (sent once only).

In foggy weather the signals are transmitted much more frequently than in clear weather. The Lundy Island station (GGJ), for example, sends out its radio fog signal every six minutes, commencing at two minutes past the hour, during thick weather; but in clear weather there are only two emissions of the complete signal-group per hour, these being timed to commence at two and thirty-two minutes past each hour. The time schedules are arranged with due regard to the respective wavelengths of the beacons so as to minimise mutual interference and overlapping.

A rotating radio beacon, such as that at Orfordness, has, so to speak, a well-defined beam of minimum signal-intensity extending on either



East Goodwin Light Vessel

side of the transmitting aerial. As the aerial-loop makes one complete revolution (360 degrees) per minute, the "minimum beam" swings round with it. Thus the beam rotates at the rate of six degrees per second.

Method of Determining Position

Numerous repetitions of the call-sign during the first minute of the transmission enable the station to be identified easily; these signals are followed by a long dash. Then, as the rotating beam of minimum intensity approaches the North-South position, a special signal known as the "North starting signal" is sent; this is followed by two dots and another prolonged dash, beginning at the exact instant when the minimum beam passes the North-South position.

By noting the exact number of seconds elapsing between the commencement of the dash and the time at which the minimum beam passes the position of the receiving station, the operator at the latter can easily ascertain his bearing relative to the rotating beacon. All that is necessary in order to express the bearing in degrees, reckoned clockwise from true North, is to multiply the number of seconds by six (this being the number of degrees through which the aerial-loop rotates in one second).

One point has, however, to be borne in mind; as the minimum beam extends on either side of the transmitting loop, the signals as heard at any given receiving station fall to minimum strength twice in the course of each minute. Therefore, the operator has to decide which represents the true bearing and which is the reciprocal.

In addition to the North signal, an East starting signal is also transmitted. This is intended for alternative use when the position of the receiving station is such that the North signal occurs at the period of minimum strength and, therefore, cannot be heard properly. The letter G in morse forms the North starting signal in the Tangmere transmission, and its "opposite" in morse, the letter W, is sent as the East starting signal. The corresponding signals in the Orfordness transmission are V and B respectively.

W. O.



Radio Beacon Stations of the British Isles

RADIO ISLAND

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VI—Nearer the Valve

By RALPH STRANGER

Author of *Outline of Wireless, The Elements of Wireless, etc.*



NOTE. "Radio Island" is a competition serial, and a prize is offered to readers each week. Details will be found on the next page.

SYNOPSIS OF PREVIOUS CHAPTERS

On her way to Wellington, New Zealand, with a party of distinguished scientists on board, the *Empress of Rome* is involved in the great disaster which occurs when an enormous meteor strikes the earth. Fifteen survivors and two refugees from the island are cast ashore on Carter Island, in mid-Pacific, and Captain Selsby, the captain of the *Empress of Rome*, suggests that they should try to make wireless apparatus from the raw materials to be found on the island, in order to see if they can get in touch with any other survivors of the disaster. Their first discovery is copper glance, which enables them to obtain a supply of copper and begin the process of wire-making; and they are also able to devise a means of producing aluminium. With a coil of home-made copper wire and two stout poles they are able to fix an aerial, but they are still a long way from the actual production of a wireless set. The next problem is the production of rubber for insulation purposes, and they are able to solve this also. "We have advanced a great deal towards the fulfilment of our dream," says Professor Arnot, "but we have not made our valve yet, and this seems to me the toughest problem of all."

While Miss Murray was discussing with Professor Arnot and Professor Grierson the question of producing rubber for insulation purposes, another group of scientists, which included Professors Traumer and Smith, the famous physicist, was trying to solve a conundrum put forward by Jack Barnby.

"If we are to make glass bulbs for valves and seal electrodes," said Jack, "we must have some sort of a blow lamp or the job is hopeless." "You are right, Barnby," said Professor Smith, "we must have a blow lamp. This means a continuous jet of air upon some sort of a flame. Well, we have plenty of coal, and perhaps we can manufacture gas. I remember reading somewhere that in the early days of gas lighting Dr. Clayton, a rector of a little village in Yorkshire, prepared gas by distilling coal, filled bladders with it, and burned the gas from a jet. I think it is quite possible. What say you, Professor Traumer?"

Professor Traumer laughed. "Quite simple, my friend, quite simple. We shall distil the coal at red heat. When coal is heated at a temperature of about 400 degrees Fahrenheit, it starts emitting its volatile constituents, of which one is naphtha. When you raise the temperature to cherry or red heat, there is an abundant production of gas. We shall have to be careful to keep the temperature just right, as if the temperature is low, there is too much tar and naphtha; and, on the other hand, if it

is too high, the coal gas will decompose into light carburated hydrogen and carbon. Oh, we shall manage that all right, and we shall be able to store the gas in suitable receptacles, even if they are only Dr. Clayton's bladders of animals. When we have the gas we can easily fashion a metal lamp of Bunsen type and thus have a flame suitable for melting glass and sealing glass bulbs."

"What about the blow, sir," chipped in Barnby.

"A blow, eh? Bellows, I suppose. Bellows?" reflected Professor Traumer. "Well, how are bellows made, Professor Smith?"

Professor Smith smiled to himself, as he saw the metallurgist's dilemma. Such is science, he thought; we all know little bits and pieces and are mostly at a loss if we leave our habitual subjects.

Making a Blow Lamp

"Oh, bellows are simple enough," he said, "all we want is a few planks of wood and some animal skins. The simplest form of bellows is made out of two boards at the ends of an air-tight skin concertina. One of the boards has a hole in the centre with a flap inside, which is a valve that allows air to go inside the bellows, as it opens inwards, but does not allow the air to escape, once it is inside. When the two boards are pressed together the air inside the bellows is expelled through nozzle.

"Such an arrangement is not good enough for our blow lamp. The air comes in gusts. What we want is a continuous flow of air. To do this we must have a double bellows consisting of three boards. Here is a sketch for you. The middle board is fixed rigidly on supports. The two lower boards have a valve each. If, with this arrangement, you move the lower board up and down, it will be pumping air into the upper chamber and will blow it up like a balloon. Place a weight on the upper board, and you will force a jet of air through the nozzle. In this manner a continuous blast of air is obtained. The nozzle must have a fine orifice. This can be obtained by heating a length of copper piping in the middle, and drawing the two halves apart till a thread is formed. On cooling, the superfluous portion is cut off and a fine aperture is thus obtained. All joints can be made airtight with rubber."

Jack Barnby was delighted, as he felt that contact with the outside world was now a step nearer. He then offered another problem.

"Many thanks for the blow lamp," he said, "but what about a quarter of a pound of solder? I shall have to run over my aerial wire carefully, as its jointing is only very rough."

"Oh, I thought of that already," said Professor Traumer, "as soon as I saw how you had spliced up the aerial wire. Well, as far as I can see, we shall need a hard spelter solder, which can be made from equal parts of copper and zinc. For this purpose we shall have to melt about four pounds of each metal, cast the alloy roughly, heat it again on a charcoal fire, and while it is hot smash it into the smallest bits possible on an anvil. Perhaps we shall be able to devise a pestle and mortar for this purpose. The granulated spelter will have to be passed through a fine sieve. For brazing and soldering purposes we shall have to mix the powdered

spelter with powdered borax, which will serve as flux."

"Borax?" enquired Professor Smith. "Is there any here?"

"There is," answered Professor Traumer. "During my earlier researches I found in the mud of the saline lakes in the caves a fine crystal about seven feet long. I left it there on a flat rock. For ordinary soldering we shall require a soft solder consisting roughly of equal parts of tin and lead. Both these metals I have found in profusion in the village in lead lining of water butts and gutters, and in among the kitchen utensils, as well as a fine zinc roof over the Government House annexe. This will save a lot of bother in looking for the metals and refining them."

Everybody laughed. Somehow it seemed amusing that the world-renowned metallurgist should have to fall back upon a zinc roof for his metallurgy.

Thanks to the Goats

"And can I have sal-ammoniac, sir, while you are about it?" begged Jack with mock humility. Professor Traumer peered at Jack through his thick-lensed spectacles, and said: "Go and ask the goats for your sal-ammoniac."

"Ask the goats, sir? What do you mean?"

"Just what I say, young man," exclaimed the professor. "All you want to produce sal-ammoniac is heaps of goats' dung. Dry it, burn it, collect the soot, heat the soot, collect the vapours from it, condense them and you will have fine solid ammonium chloride, which you call sal-ammoniac."

Everybody laughed again, and when the excitement subsided, the conversation turned to the subject of making glass. It appeared that the process consisted in collecting fine white sand, and washing it repeatedly in clean fresh water, in order to eliminate chalk and other impurities. After washing, the sand is heated to redness, in order to burn off vegetable matter. On cooling it is sifted through fine sieves, in order to eliminate the larger particles. To this is added 13 per cent. of carbonate of lime, in the form of fine powdered limestone, and 14 per cent. of soda, which is sodium carbonate, and is obtainable from burning washed seaweed. It was also decided to add 1 per cent. of alumina which was available.

For the purpose of fusing this mixture of materials Professor Traumer recommended the use of open clay vessels with hoods over them heated by wood fires.

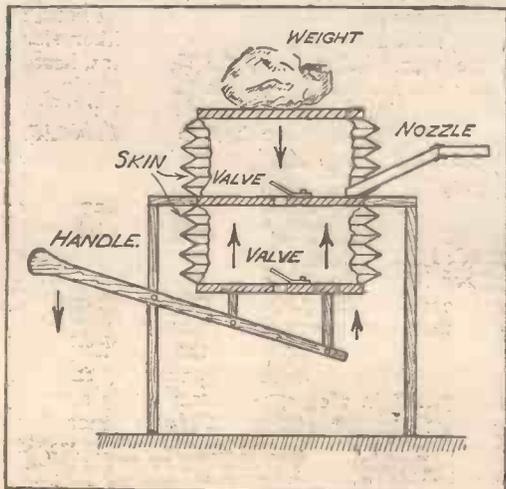
Glass Blowing

The actual process of blowing glass, described by Professor Smith, proved to be very interesting. The glass-blower uses an iron tube, about five feet long, provided at one end with an enlarged butt, and at the other end with a wooden handle and mouthpiece.

The pipe, which is previously heated, is dipped into the molten glass, and then withdrawn with a globule of glass at the end. This is rapidly rotated to make the globule of glass keep its spherical form, allowed to cool slightly, and then blown to the required size.

When the scientists had decided upon the exact method of producing glass, the conversation degenerated into small talk, and suddenly

(Continued at foot of col. 1, opposite)



Arrangement of double bellows

"Radio Island" Competition Prizes for Solving Problems

The scientists who have been stranded on Carter Island are getting nearer to achieving their object of building a wireless set out of raw materials. But there are still several problems to be solved, and our readers are invited to help the scientists to overcome the obstacles which confront them. A prize of two guineas is offered each week for the best solution received and the prize-winning solutions will be embodied in subsequent instalments of "Radio Island."

The best solution of the fourth problem, which appeared in the issue of WORLD-RADIO dated January 12, was submitted by A. F. Coppack, St. Kilda, 5, Albert Road, Leicester, to whom the prize of two guineas is awarded. Competitors who entered for this problem should note that, although the processes of producing lead and tin are not mentioned in this instalment of "Radio Island," they were taken into consideration in judging the answers submitted.

The Seventh Problem

Here is the seventh problem:

How would you make valve electrodes with the materials at hand on Carter Island? Given mercury, how would you exhaust the valve glass bulb? Any alternative process of exhaustion, without the use of mercury, will receive equally favourable consideration.

There is no entrance fee. Solutions must be written on one side of the paper only, and must be accompanied by the sender's name and address. They should be simply and concisely expressed, and must not exceed 500 words in length. They must reach the Editor, WORLD-RADIO, Broadcasting House, London, W.1, not later than Friday, February 9.

In the case of a tie the prize will be shared equally by the successful entrants. The payment of the prize will cover all publishing rights for the prize-winning solutions, but in the event of the serial being published in book form on its completion, the names of all the prize-winners will be published in the book as those of contributors of the various solutions involved.

The Editor's decision is final, and no correspondence can be entered into concerning the competition.

RADIO ISLAND

(Continued from opposite page)

a loud shout was heard. The startled scientists saw Professor Grierson waving his arms in the distance and pointing towards the sea. "Something has happened," exclaimed Professor Traumer. "Let us go and see what has caused our colleague to lose his usual dignity and wave his arms as if he were a semaphore."

The whole party ran quickly to the other side of the plateau, where Miss Murray, Professor Arnot and Grierson were standing. The remainder of the colony, with the Captain in front, were racing to the same point.

The subject of interest was soon evident. A large sail was rapidly nearing the island, and it was clear that some large boat was going to pay them a visit. But it was difficult to make out the actual size of the boat, as the sail was hiding most of it.

The Captain looked at it through his cupped hands and shook his head. "A native boat of some description. I cannot see any of the crew. . . . I think they are near enough to hear us, but the wind is blowing in the opposite direction. Let's get down. The ladies had better stay where they are. . . . Please take some of these pickaxes with you, gentlemen. They may be useful."

(To be continued)

Correspondence

More About Sub-Harmonics

To the Editor of WORLD-RADIO

SIR,—The correspondence in WORLD-RADIO of January 5, concerning sub-harmonics of radio stations, prompts me to relate my experiences. I use two receivers; my broadcast receiver (o-v-2), employing semi-aperiodic plug-in coils, with differential reaction, and my short-wave receiver (o-v-2) is of conventional design.

I have, on both these sets, received sub-harmonics; but, peculiarly, only when the sets are in a state of oscillation, no trace being audible otherwise. On the broadcast set, I have received, among others, the third and fourth sub-harmonics of London National television note (382 kc/s and 287 kc/s); the second and third sub-harmonics of London Regional (421.5 kc/s and 281 kc/s) and Berlin-Tegel (416 kc/s and 277 kc/s); and the second sub-harmonics of Midland Regional (376 kc/s), Beromünster (218 kc/s) and Stuttgart (282 kc/s). I can receive these at any time when the stations are working, but they are very much weaker than the fundamentals and partly distorted. Stations whose sub-harmonics I attempted to receive, but failed, were Hilversum, Fécamp, Poste Parisien, and others, all of which are, rather strangely, well-known generators of harmonics.

I discussed the matter with technical friends, who thought the receivers were at fault, since the idea of sub-harmonics was rather incon-

ceivable. So I have since tried different types of coils, with different aerial tappings and couplings, detector valves, reaction systems. I took my apparatus to a friend's house, some half a mile away, and used there an entirely different aerial and I have altered values of components, but in spite of all, they persisted.

On the short-wave set, I have also received sub-harmonics, but with rather unusual results, which seem to indicate that the sub-harmonics really were being propagated from the transmitters. In one instance (Sunday afternoon, January 7, at 15.00), I could receive OEK (app. 40 m.) and RKI (app. 39 m.) both on the fundamental frequencies and on the second sub-harmonics. Between these two, at the same time, were operating XGO, Shanghai (7,580 kc/s); KTP, Manila and KTN. These were coming over as loud as OEK and RKI, but the second sub-harmonics were inaudible, due, I concluded, to the unfavourable conditions for propagation of the second sub-harmonic frequencies from those places at that time.

I have also heard the second sub-harmonics of HAS2 (on 3,420 kc/s), DFT (3,906 kc/s), FXC Beyrouth (3,993 kc/s) and Rabat (4,018 kc/s), but I have never heard any from really distant stations, Rocky Point, JNJ, W3XAL, etc., or of stations around 20 metres, where the difference in frequency of fundamental and second sub-harmonic is very great.

From the above results I have come to the conclusion that sub-harmonics are a reality. I would be grateful if someone would try to clear the matter up.

Yours faithfully,
Peterborough.

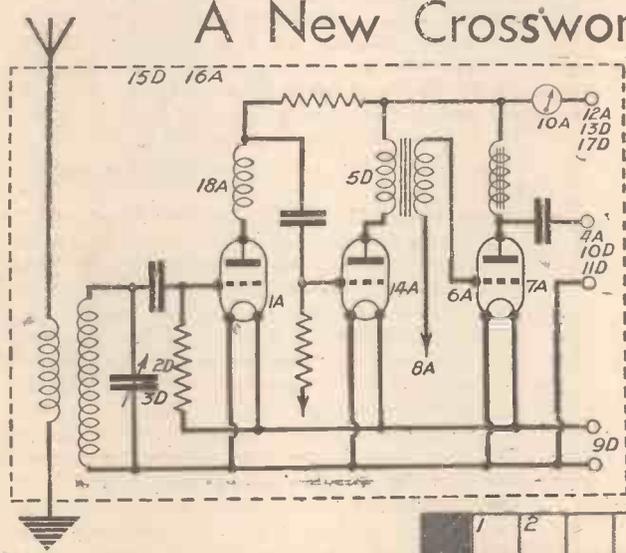
J. H. F.

A New Crossword Puzzle

By "DECIBEL"

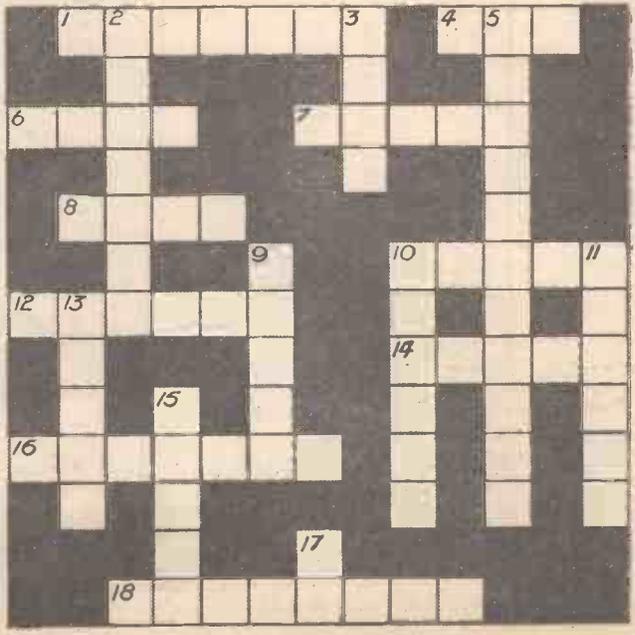
EVER since my school-days, when we used to amuse each other by proving (fallaciously, of course) that 1=2 or that a right-angle was equal to an angle greater than a right-angle, I have been interested in problems and puzzles of all kinds, not so much because the solution might be of practical value, but largely just for the fun of getting the right answer.

Now and again I amuse myself by constructing problems on which my friends can try their skill, and as some of these problems have a wireless interest I thought they might appeal to readers of this



journal. One of them, in the form of a somewhat unusual type of cross-word puzzle, is given here, and if readers would like me to give further puzzles of this and other types I will see what I can do. I have not made this particular puzzle very difficult, but if readers would prefer something more difficult, or even easier, I hope they will drop me a line to say so.

The clues marked against various parts of the circuit diagram refer to something associated with the component, etc., indicated, such as its name or some property or part of it, or the name or trade-name of a manufacturer. The letter "A" indicates across, and "D" indicates down. The dotted line round the receiver refers to the complete receiver, the chassis, or the cabinet. The solution will be published next week.



WIRELESS TOPICS by "ION"

THOSE who have been keeping in touch with the development of the radio industry during the last few years know how rapidly things are progressing and how difficult it is to keep pace with this progress. While the would-be listener is usually at a loss to know which is the best receiver to buy for his particular purpose, and what is a reasonable price that one should pay for such a receiver, the home constructor is in a still greater quandary, as he is being influenced simultaneously by hints from numerous quarters, each quarter giving different advice.

It is not my intention to influence you one way or another. I have no axe to grind. I intend to give you news and to tell you in plain language the purpose claimed for every set and component I am describing. I shall not assume that every reader of WORLD-RADIO is an accomplished radio engineer and that it is sufficient to throw at him a mass of technical data in order to enlighten him about any new development. Now and again I shall endeavour to explain the terms used. In the case of topics dealing with home construction I shall expect the reader to be in possession of the elementary facts underlying wireless reception. Such readers may come across a formula or two. Beginners who are unable to follow some of the terms used are invited to write to "Decibel," who is conducting each week the Beginners' "Radio Circle," and who will be delighted to deal with all inquiries of such nature. But, in any case, I should like to hear from my readers from time to time in connexion with "Wireless Topics," and every reader may rest assured that his or her criticisms and suggestions will be taken seriously and acted upon whenever possible. And now let us turn to the news of the week.

AN ALL-ELECTRIC SUPERHET

I have just heard that the H.M.V. people are releasing *this week* a new superheterodyne receiver "Four Forty." The chassis is contained in a walnut marquetry cabinet 1ft. 5 1/2 in. high, 1ft. 2 1/2 in. wide and 10 3/4 in. deep. The technical details of the circuit are as follows: Five valves (including rectifier in the A.C. model); cathode-coupled screened-grid frequency changer (non-radiating); intermediate-frequency transformer, coupled to variable-mu intermediate-frequency amplifier; second intermediate-frequency transformer coupled to power-grid second detector, which is coupled by a new-type intervalve transformer to a power-pentode output valve, the whole giving an output of about 2 watts. Band-pass constant-peak aerial tuning. Intermediate frequency 125 kc/s.

There are four controls: (1) Main switch with "medium wave," "long wave," "gramophone" (for use in connexion with gramophone pick-up), and "off" positions. Tuning scale marked in wavelengths. The set is automatically illuminated on switching on. (2) Tuning is carried out with the help of a single knob which also moves a pointer across the wavelength scale. (3) Volume control and (4) duplex tone control.

The wavelength range is approximately from 200 to 550 metres and from 1,000 to 2,000 metres. The loudspeaker, which is housed inside the set, is a new-type H.M.V. energised moving-coil loudspeaker which, it is claimed, has a balanced sensitivity at all registers, and covers a wide frequency range. In the case of the A.C. model a plug is fitted which enables the owner to use the mains as an aerial. It is also claimed that a number of principal British and Continental stations can be received satisfactorily without an external aerial by using the mains. The set is



The H.M.V. superheterodyne receiver "Four Forty"

thus made transportable. For greater sensitivity an outdoor aerial and earth can be used.

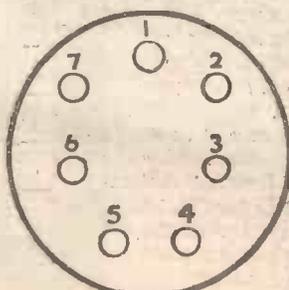
The D.C. model has four valves, as the rectifier valve is not required in this case. The voltage range on A.C. mains is 200-250 at 50-100 cycles per second. In the case of the D.C. model it is 200-250 volts. The makers are prepared to supply models for special voltage to order. The power consumed is stated to be 60 watts—the equivalent of burning a single domestic lamp. An additional loudspeaker can be connected to terminals specially provided for this purpose. The price of the A.C. model is 12 guineas and the D.C. model 13 guineas.

A SUPERHET. RADIOGRAMPHONE

Another new H.M.V. set is the "Five Forty" Radiogram. The circuit and other technical details are identical with those of the superhet. "Four Forty," but in the case of the radiogram there is an outside gramophone control in addition to the other controls. The gramophone contains a silent-running electric motor with an automatic stop. The height of the cabinet is 2ft. 10 in., width 1ft. 10 3/4 in., and depth 1ft. 3 13/16 in. The power consumed is stated to be 60 watts on radio and 90 watts on the gramophone. The makers claim that the "Five Forty" gives true-to-life reproduction of radio and records, is highly sensitive and selective, and that it is a handsome piece of furniture into the bargain. The price for A.C. models is 20 guineas and that for D.C. models 21 guineas.

CLASS "B" AMPLIFICATION

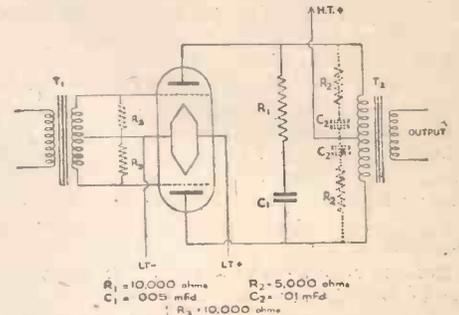
I believe many listeners are still having trouble with their Class "B" amplifiers. The Mullard technical service department states that few people make sure that they get suitable first-class components for the circuit. They give as an instance one of the firm's valves, the PM 2B, which is specially designed for Class "B" amplification. Some people pay fourteen shillings for the valve and then try to get off with a few shillings on the rest of the circuit. That this cannot be done is obvious from



The Mullard PM 2B base
Fig. 2

Let me explain to you what this circuit means. The "Class B" valve is really two three-electrode valves housed in a single glass bulb. There are two separate anodes, two separate grids, and one common filament. The circuit is simple enough. The secondary winding of the step-down transformer T_1 is connected across the grids of the PM 2B valve. The primary winding of this transformer is connected to the preceding valve, which is the driver valve (not shown in the diagram and which, in the case of Mullard valves, is the PM 2DX). In this manner you get the output voltage of the driver valve stepped down by the transformer T_1 and applied across the grids of the PM 2B.

You will notice that the secondary of the transformer T_1 is tapped. The ratio of the transformation of T_1 to each half of the secondary is 3:1, or 1 1/2:1 over all. There are two resistances in series, R_1 and R_2 , of 10,000 ohms each, connected across the secondary, as shown. These are fitted in order to prevent undesirable high-frequency oscillations in this circuit. As you see, up to this point, we have already three pitfalls: the driver valve must be of the right type, the transformer T_1 must be of the right type (the total resistance of its secondary winding



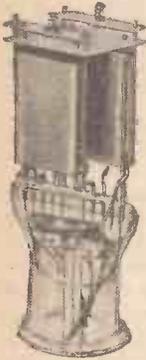
The Mullard PM 2B Class "B" output valve:
Fig. 1. (The internal construction of the valve is shown in the next column.)

must not exceed 400 ohms), and the resistances R_3 must be of the right value.

The two anodes of the PM 2B valve are connected across the tapped primary of the step-down transformer T_2 (output transformer). The ratio of transformation of this transformer depends upon the impedance of the loudspeaker and the optimum load (anode-to-anode) of the valve at a given anode voltage. (This optimum load is usually stated by the makers.) In the case of the Mullard PM 2B valve the optimum load is given as 14,000 ohms at 120 volts. Let us assume that the moving-coil loudspeaker you are going to use has an impedance of 2,000 ohms (you can ascertain this impedance from the loudspeaker manufacturer). Then, to arrive at the desired ratio of transformation of the output transformer, all you have to do is to divide the optimum load by the loudspeaker impedance $\left(\frac{14,000}{2,000}\right)$, take the square root of the result, which is $\sqrt{7}$ and is equal to approx. 2.64. The ratio of transformation is then 2.64:1, overall, or the nearest commercial size. The resistance of the primary winding of T_2 should not exceed 1,000 ohms. Transformers of this type are manufactured by R.I., Varley, Multitone, Wearite, Sound Sales and others.

Across the primary winding of the transformer T_2 is placed a limiting circuit C_1R_1 , where the capacity of the fixed condenser C_1 is 0.005 μ F, and the value of the resistance R_1 is 10,000 ohms. This limiting circuit prevents excessive amplification of the higher audio-frequencies. An alternative arrangement is shown in dotted lines. If this arrangement is used, the resistances R_2 should have a value of 5,000 ohms each, and

This is the first instalment of a new feature which will deal from week to week with topical news from the laboratories of our leading manufacturing firms



the capacity of the condensers C_2 should be $0.01 \mu F$ each. Such condensers and resistances can be obtained from Dubilier and other firms of good repute.

Trouble may arise owing to wrong connexions of the seven-pin valves. Let us make sure of this point. Fig. 2 illustrates the appearance of the base of the valve (not the valveholder). The connexions are as follows: anode 1 to pin 3, anode 2 to pin 7, grid 1 to pin 2, grid 2 to pin 1, and filament to pins 4 and 5; you will notice that the pins

at the base of the valve, in Fig. 2, are numbered from 1 to 7 in a clockwise direction. To translate this on to the valveholder, number the circles in an anti-clockwise direction so that circle 7 becomes 2, circle 6 becomes 3, and so on.

With class "B" amplification do not run your set at too loud a volume of sound. If you try to do this you will overload the valve and increase current consumption from your H.T. to a very great extent, apart from introducing distortion. The whole idea of class "B" amplification is to economise in the consumption of your H.T. so that the set can be run from a small-capacity dry battery.

The operating data of the PM 2B are as follows:—

Filament voltage 2V, filament current 0.2A, maximum anode voltage 150V, normal anode voltage 120V, minimum input impedance 3,000-5,000 ohms, and, as already mentioned, optimum load (anode-to-anode) 14,000 ohms at anode volts of 120.

I hope to be able to deal with other makes and types of valves in the near future.

BUILDING A SHORT-WAVE RECEIVER

The firm of Stratton and Co., of Birmingham, are pioneers in the short-wave field. For some time now they have been supplying short-wave receivers to listeners throughout the Empire, and I understand that their products are well known all over the world. I am glad to see a British firm making headway in the Dominions, as most of the letters coming from overseas stress the point of British make.

The Kilodyne 4, which Strattons are manufacturing now, is a kit of parts designed to meet the requirements of the man who is not a skilled home constructor, but wishes to build the set himself. It is claimed that the Kilodyne 4 kit is easily assembled with the help of only a screwdriver and a pair of pliers. There are no soldered joints, the panel and the chassis are supplied already drilled, and everything necessary is included in the kit down to the smallest nut. Clear wiring diagrams and complete constructional data, together with the final information for connecting up and testing, are sent out with the kit.

The circuit comprises four valves, of which the first is a screened-grid valve for high-frequency amplification, transformer coupled to the detector valve. This, in turn, is followed by resistance-capacity coupling to the first L.F. stage.

This stage is transformer-coupled to a small power pentode (output) valve. Reaction is obtained by coupling a reaction coil in the anode circuit of the detector valve to the grid coil of the H.F. transformer. There are two types of kits. one

for battery and the other for A.C. mains supply. The power consumption in the case of the A.C. receiver is 40 watts at 230 volts. In the case of the battery receiver the current consumption is 14 milliamps at 135 volts or 18 milliamps at 150 volts. Filament current is 0.65 amps. at 2 volts.

The tuning is controlled by a single knob. A new type of open vision drive with slow-motion (ratio 22 : 1) specially designed for short-wave tuning is used for this purpose. The reaction control also has a slow-motion drive. Terminals are provided for a gramophone pick-up. The makers state that, although the set deals with a range of wavelengths extending from 2,000 metres down to $12\frac{1}{2}$ metres, it has been specially designed for short-wave work. Provided that the kit is properly assembled, connected and operated, it is claimed to be free from hand-capacity effects, economical to run, and easy to maintain.

All parts, included in the kit, are said to be suitable for use under tropical conditions. Full details and prices can be obtained from the makers—Messrs. Stratton and Co., Ltd., Eddystone Works, Bromsgrove Street, Birmingham, England.

SHORT-WAVE TUNERS AND CHOKES

The mention of a short-wave kit reminds me that A. F. Bulgin and Co., Ltd., of Abbey Road, Barking, have just placed on the market a new line of short-wave tuners and chokes. The short-wave tuners they are offering the public are of the plug-in type. The coils are wound on ribbed ebonite formers, each coil having its own reaction winding. The aerial wire is connected to the tuner by means of a crocodile clip, whenever practicable. The following ranges of wavelengths are available: 10-25, 20-50, 30-80, 70-130, and 120-180 metres. The price of each tuner is 4s. 6d. A holder for the above coils consists of an ebonite base, with pillars carrying sockets fitted with 6 B.A. ter-

minals. All connexions are clearly marked. The price is 1s. 6d. per holder.

The firm also markets short-wave chokes. The H.F.3 type, which costs 2s. 6d., is designed to work on a range of wavelengths between 8 and 80 metres. The self-inductance is approximately 185 millihenries. The windings are sectionalised on a polished ebonite former, and it is said that the choke covers the above range without peaking. The D.C. resistance is approximately 17 ohms.

There is also a skeleton short-wave H.F. choke (H.F.14) which covers a range of 5 to 75 metres. It is designed on the low-loss principle. The former is of paxolin and carries an enamelled-wire winding connected to strip terminals which can be soldered if necessary. It may be held in position by the connecting wires of the set. The self-inductance is approximately 170 millihenries and D.C. resistance 4.5 ohms. Price 1s. 6d. each.



Messrs. A. F. Bulgin's H.F.3 short-wave Choke

WIRELESS ON MOUNT EVEREST

I have just received an interesting account from the General Electric Company (G.E.C.) of the performance of their standard "Overseas" receiver, model B.C. 3360. As we all know, a British expedition endeavoured to reach the summit of Mount Everest, and although it failed in its purpose, the story of the heroic attempt has added an illuminating page to the history of British pluck and endurance.

The Expedition was well equipped, and included among what was deemed to be essential for the object in view was a short and medium waveband receiver. G.E.C. model B.C. 3360 was selected, amongst other sets, for this purpose. The makers have received a report from Mr. David S. Richards, a member of the Communications Staff of the Expedition at Katapahar:

"I have great pleasure in writing you a report on the performance of the GECophone B.C. 3360 short and medium-wave receiver. We found this receiver extremely useful and reliable. It was installed at our wireless station at Katapahar, and we were fortunate in having fifty-cycle mains supply in operating this instrument. The receiver brought in telephony from Base Camp on the loudspeaker at great strength and without any difficulty. It was free from mains "hum" and background noises. Empire Broadcasting was received with excellent quality, though conditions of reception varied enormously from day to day.

"Our short-wave transmitter was situated some three miles away from the main station and was remote controlled. The GECophone was also used for checking on the output of this transmitter. . ."

A LOUDSPEAKER IN EVERY LIVING ROOM

It is remarkable how few houses are wired for loudspeaker extensions in every living room and every bedroom, not forgetting the kitchen. You can have a loudspeaker fixed permanently in every room, or you may have merely plug-in points so that a loudspeaker can be taken from room to room. Such extension should be made by an expert, otherwise quality of reception may suffer.

The British Blue Spot Company, Ltd., of Blue Spot House, 94/96, Rosoman Street, Rosebery Avenue, London, E.C.1, provide equipment for this. The actual work can be done by your local dealer with the help of Blue Spot equipment, and if you write to the firm and give them full particulars of the extensions required, they will tell you what to do and about how much it will cost.



The Stratton Kilodyne 4



TRACING FAULTS in Wireless Receivers

Part VII: Circuit Reading (continued)

By J. H. A. WHITEHOUSE

If the anode volts of the detector valve, for instance, are missing, and if a straight-through line continuity test fails (in the case of the set we are considering, from anode socket to earth without taking the chassis out of the cabinet), the only thing to do is to work up the line from the plug inwards, because the fault may be in the plug or cord exterior to the chassis. It is a waste of time to pull out the chassis only to find that the fault is outside it! In any case plugs and cords may always be viewed with suspicion, especially the former.

Nothing very much has been said about the resistance R₁. Resistances of this kind can tell us a lot, and they are going to get a special section to themselves later. At the moment we may notice two things: firstly that this resistance is a good case of a component which is actually common to two sections of the circuit; it is a "signal" coupler from the detector to the low-frequency audible section, and it is also in the direct anode "supply" line, behaving as a voltage dropper.

Secondly, its resistance must be taken into account when the correct line test resistance value is checked,

i.e. (Fig. 17)—

D.C. Resistance of choke (CK1) = 100 ohms.
D.C. Resistance of R₁ = 50,000 ohms.

Total 50,100 ohms.

In practice, of course, on the average resistance-measuring meter the 50,000 ohms will mask the 100-ohm value; on the other hand the choke is more likely to give a definite open-circuit fault or short to earth than a variation of resistance, whereas anode resistances may do anything. Most commonly, if they are going

wrong they go "high," although certain types of composition resistances sometimes develop a fault under or just behind the metal end-caps. The rule with a resistance of this class whose

are not now in the direct line test, but are "danger points" to earth if the reaction condenser VC₄ is "playing up," offering 5 or 15 ohms on a dead short on VC₄, depending on whether the wave-change switch is in the medium or long-wave position. When testing the resistance of the signal section always remember to move the wave-change switch.

A breakdown on C₅ will offer the resistance of the transformer primary to earth, about 750 ohms. C₄ will go straight to earth, assuming a dead internal short. It must not be forgotten, however, that condensers do not always go the "whole hog"; still, any condenser which will give a reading in ohms is sufficient to arouse suspicion, unless it is of the electrolytic type, about which we shall hear later.

There is a general point in circuit reading which is worth while noting carefully. Some theoretical diagrams are not as plainly drawn as they might be. It is sometimes necessary to squeeze a given drawing into a given size or proportion for printing or blue-print purposes. In Fig. 18 there are two cases of a not very clearly drawn arrangement from the point of view of finding out how the circuit works, or what components are doing.

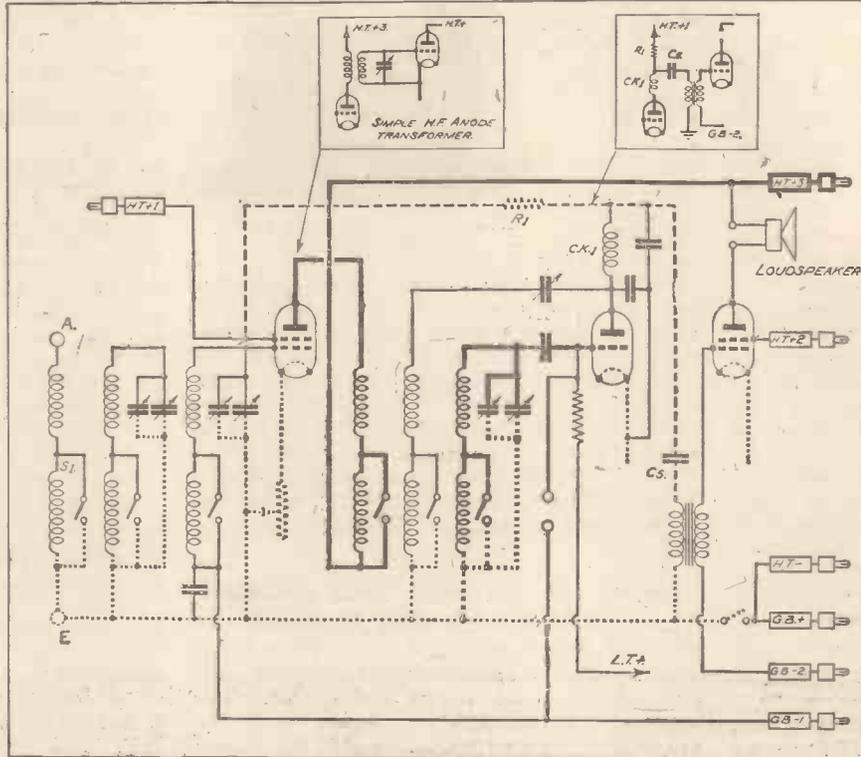


Fig. 18—Illustrating cases of ambiguity in circuit diagram

reputation is not above suspicion is to scrap it and smash it, so that it cannot get into a set again as a replacement, by mistake.

In the absence of a megger for testing high resistances of this nature, a milliammeter and battery will give a good test of value. R₁ is supposed to be 50,000 ohms, plus or minus a few per cent., so that using the 150-volt set battery (having checked the voltage to see that it is 150 volts!), we should get: $I = \frac{E}{R}$, $I = \frac{150}{50,000} = \frac{30}{10,000} = \frac{3}{1,000} = 3 \text{ mA}$ through a 0-5mA meter.

A "megger" is handy, but not necessary for this sort of component, and it should never be used on condensers. A 1,000-volt megger on a 300-volt condenser is heading for disaster!

Although we have diagnosed according to our policy of mentioning things as they crop up, we have arrived at Fig. 17, which is the anode test line for the set we are considering (having capacity reaction).

The first case is the anode circuit of the H.F. valve and its relation to the grid circuit of the detector valve—both drawn in heavy line.

When this is looked at carefully and possibly re-drawn on a scrap of paper, it resolves itself into our old friend the "anode transformer" (shown in the small square).

The other case of an obscure piece of drawing

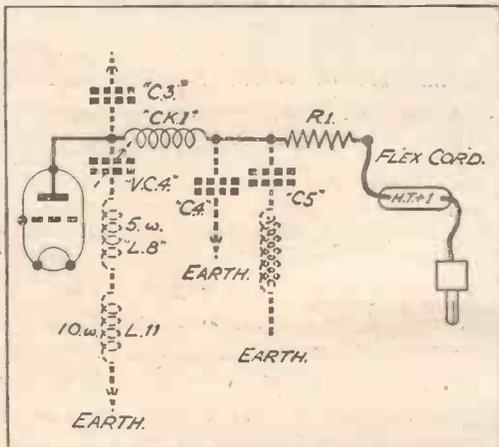


Fig. 17—Detector valve anode test line with capacity reaction

Resistance to earth=15 ohms with short-circuit on VC₄, depending upon position of wave-change switch

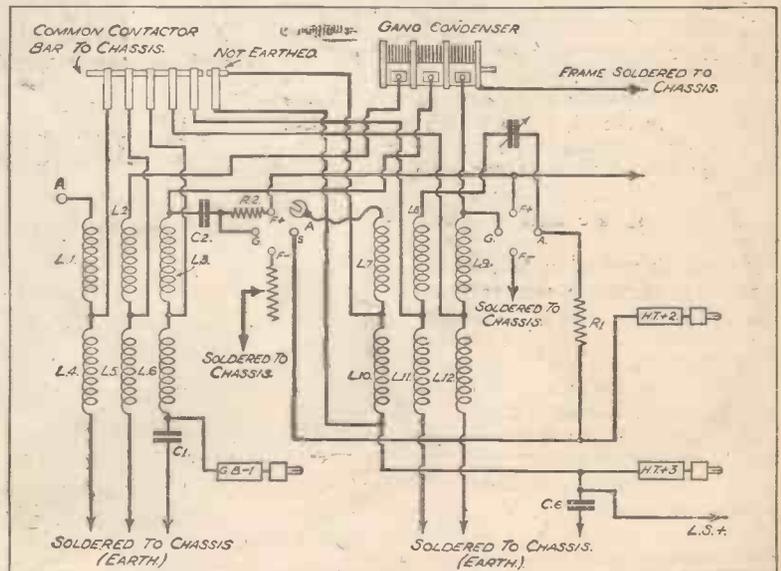


Fig. 19—A "manufacturing" diagram in which two errors are introduced. Compare with Fig. 14 of previous article

is the anode circuit of the output pentode—the internal screen of which has been omitted for clearness. This resolves itself into a resistance-capacity fed transformer shown in the second small square in what might be termed its academic form, which shows at once why and how it works.

It is not the function of this series of notes to explain the theory of radio, but if there is any doubt whatever as to what a circuit is doing re-draw it; it will very often save a lot of time. This is especially the case where a circuit has to be drawn up from the set itself, when, for instance, no theoretical diagram is provided and the investigator has to make his own.

Workshop Practice

The factory men of a radio concern may take considerable liberties with the theoretical drawing when it comes to saving time and material, and, although the circuit is electrically the same, short cuts in wiring are taken to a sometimes bewildering extent. Certain groups of components are mounted together. Examples of this are fixed condensers mounted together in cans, a number of coils mounted on the same former, and wave-change switches assembled on the same contactor strip.

However confusing the physical arrangement is, it will be found that the electrical conditions are the same, and it is in these cases that the value of thoughtful continuity testing is stressed once again. Fig. 19 shows some of the points in the inaudible signal section where the wiring has been shifted round for speed and economy of manufacture. There are two mistakes in this diagram which have been inserted deliberately to illustrate the sort of traps the tester may fall into. Compare it with Fig. 14 in last week's article.

Fig. 19 is, too, the sort of sketch the tester makes from a chassis, and Fig. 14 is as he re-draws if he is confused as to the exact method of work-

ing. They are exactly the same electrically except for the two errors introduced in Fig. 19. Notice how all earthing leads are taken to the nearest earthed point—the chassis frame—and how a common earthed contactor is employed on the switch for some of the contacts.

Components Grouped for Wiring

Certain components such as R₂, the gridleak, and C₂, the grid-condenser, are grouped and soldered together in their logical positions near the grid terminal of the detector valve. C₆ is fitted close to the point where the "HT+3" cord joins up, the wire being looped on to the condenser on its way to the anode coils of the H.F. valve.

The audible section of the circuit comprises those components which are dealing with speech or music which can be heard in test phones. The entrance of the inaudible R.F. signal into the audible section is the grid circuit of the detector valve; once again, therefore, the importance of getting that valve right is stressed.

(To be continued)

(Continued from column 3)

voltage in addition to supplying all the current taken by the circuit connected to the two batteries. The effect of connecting the old battery in parallel with the new one will therefore be to run down the new one very quickly. If the batteries are connected in series instead of in parallel the total voltage will be increased and the current supplied to the valves will therefore tend to increase. The old battery, however, may have developed a high internal resistance which will have to be overcome, with the result that nothing is gained by connecting it in series with the new one. An old battery, in addition, may be responsible for causing crackles in the loudspeaker owing to changes in the internal resistance of the battery.

Readers' Queries Answered

Under this heading we publish questions and answers of general interest arising out of our technical correspondence. We are always willing to assist readers who require information on technical points, but all such requests requiring a postal reply must be accompanied by a stamped addressed envelope.

W.R. 1,024. I have fitted a potentiometer as the gridleak of the first L.F. valve in my receiver to act as a volume control but there is very little effect over a large part of the movement.

Most potentiometers designed for volume control are wound in a special manner so that there are not equal changes in resistance for equal movements of the sliding contact. The changes in resistance are graduated so that they follow a so-called logarithmic law in order that the corresponding changes in volume will appear more nearly equal to the ear. If a potentiometer of this type is connected the wrong way round this uniform control will not be obtained, so the connexions to the two ends should be reversed. A potentiometer which is not wound logarithmically will not produce uniform control and will have little effect over a large part of the movement, and most of the control will occur over a small portion near one end of the movement.

* * *

W.R. 1,025. Is it possible to connect an old H.T. battery in parallel with a new one to obtain more current?

Unless two batteries have exactly the same voltage, current will flow from one to the other if they are connected in parallel. Hence the new one with the higher voltage will have to supply current to the old one with the lower

(Continued in previous column)



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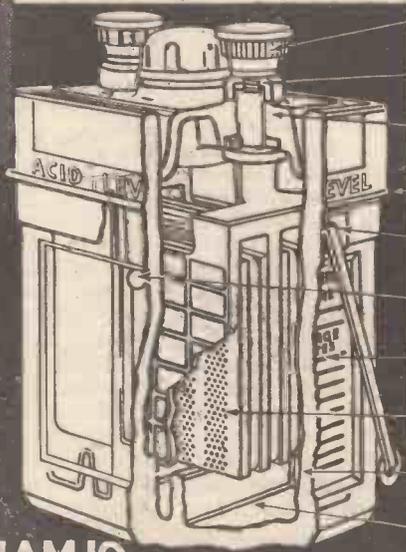
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Vide "Wireless World," Jan. 5th, 1934

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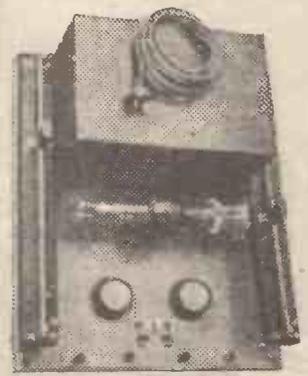
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THE RADIO CIRCLE

FOR BEGINNERS ONLY

Conducted by "Decibel"



We have seen that electricity is a form of energy which can be converted into heat, light, or chemical energy. Conversely, it can be obtained from these other forms of energy. The use of primary cells for supplying energy by chemical means has been discussed, but it is also possible to obtain a difference of potential by joining together two wires composed of different metals and heating the junction. A simple way of demonstrating this is to take the ends of the leads of a pair of headphones and connect one of them to a different metal, such as the blade of a penknife, and place the other lead and the end of the penknife in contact with the tongue. It will be found that a click can be heard in the 'phones at the instant of doing this, showing that a current flows through the 'phones. This is a useful tip for testing the sensitivity of 'phones.

This method of obtaining electrical energy has not been used very much, but it has been employed to some extent for charging batteries for wireless receivers where an electricity supply is not available. Units composed of pieces of different metals—e.g., steel and constantan—joined together in series-parallel arrangements to give the required current and voltage, have been made for use with gas or oil heating. They were on the market in this country some years ago, but they never became popular; attempts have been made recently to introduce them in some of the country districts on the Continent, where heating is obtained from oil lamps and the principal difficulty in the use of wireless receivers is the power supply.

The usual method of obtaining electrical energy depends on the relation between electricity and magnetism, which I mentioned in our first discussion, and it is to this relation that we owe most of the applications of electricity.

Electromagnetism

If a magnetic compass is placed near a conductor through which a current of electricity is flowing the compass needle is deflected. If the current is reversed the deflection of the needle will be in the opposite direction. It is evident, therefore, that there is some relation between electricity and magnetism, and that a current of electricity acts like a magnet. The greater the current the greater is the magnetic effect, and we can also increase this magnetic effect by coiling up the conductor so that we get the effect of a long conductor in a small space. If we place a magnetic needle inside a coil of wire carrying a current the needle will point along the axis of the coil, and if we reverse the direction of the current the needle will also reverse.

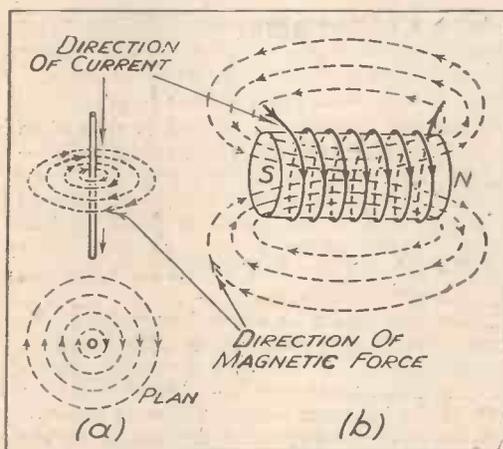
If the needle is placed outside the coil it will still point along the axis of the coil, but in the opposite direction to what it points inside the coil, for the current in the same direction. As the needle is moved near the ends of the coil it will turn round towards the ends of the coil, and will take up directions as shown by the dotted lines in the diagram. As the needle is taken farther away from the coil the tendency for it to take up these positions gets less and less—in other words the magnetic force produced by the coil is greatest near the coil and gets less as the distance is increased.

Inside the coil the force is more uniform, as it is due to the concentration of all the forces produced by each turn of the coil, and it is, therefore, greater than that acting on a needle outside the coil. One end of the coil acts like the north pole of a magnet and the other end acts like a south pole. The north pole of a magnet is, of course, the end which would point towards the magnetic pole of the earth if the magnet were suspended so that it was free to take up any position outside the influence of any other magnetic force.

Magnetic Flux

The directions which the magnet needle would take up at various points inside and outside the coil, as shown by the dotted lines, are often referred to as *lines of magnetic force* or *flux*. The direction of the force at any point near a conductor, whether it is straight or coiled up, is always at right angles to the conductor as shown in the diagram.

We can actually increase the magnetic force produced by a given current flowing in a coil of wire by filling the inside of the coil by a magnetic material such as iron. The magnetic force produced by the current magnetises the iron, which then produces its own force; the total force acting is, therefore, much greater than it was previously. The ratio of the force inside the coil with the iron core to the force without the iron is called the *permeability* of the iron. This ratio may be as much as several thousand for some kinds of magnetic alloys of iron and nickel.



Illustrating magnetic effects produced by electric currents

This property of a coil with an iron core is used in the electric bell which I have introduced several times into our discussions. When a current flows through the bell windings the iron core inside them becomes magnetised and attracts a small iron armature to which the striker of the bell is attached. The striker hits the bell, but at the same time the circuit is broken, because a small contact attached to the armature and striker is pulled away from a fixed contact to which the battery is connected. When the circuit is broken and current ceases to flow, the bell windings no longer act as a magnet, and the armature flies back because of a spring attached to it; and once more the

circuit is completed, current flows, the bell windings are energised, and the striker hits the bell. This process goes on as long as the bell-push is pressed and connects the battery to the bell contacts. The same property of a coil with an iron core is used in meters to measure the value of a current by causing the rotation of a pointer against a spring.

We have seen that the chemical and heating effects of electricity are reversible—i.e., we can also obtain electrical currents by chemical and heating methods—so we should expect to be able to obtain current by making use of the magnetic properties of a current. This is found to be the case, and this method is the one used to-day for obtaining electrical energy on a large scale.

Electromagnetic Induction

If we place a magnet near a conductor there is no difference of potential produced in the conductor as long as both the magnet and the conductor remain stationary. If, however, we move either of them when the magnetic force of the magnet is at right angles to the conductor a difference of potential or electromotive force (E.M.F.) is set up in the conductor. This E.M.F. will be maintained as long as the movement takes place with the magnetic force acting at right angles to the conductor. If either the movement or the direction of the magnetic force is reversed the induced E.M.F. will be reversed; but if the direction of both movement and the magnetic force is reversed the induced E.M.F. will remain in the same direction. The amount of the E.M.F. will be increased by increasing the strength of the magnetic force or by increasing the speed at which the magnet or conductor is moved.

This principle is used in machines for generating electricity, and the reverse principle is used in machines driven by electricity. In electrical generators either the conductors or the magnets are rotated at high speed by mechanical means, such as a steam or petrol engine, and part of the electrical energy obtained is used to energise magnets composed of iron-cored coils. These magnets have sufficient permanent magnetism to start the generation of an E.M.F., which can then be used gradually to increase the magnetism and so generate a still larger E.M.F.

Alternating Current

Special arrangements have to be made if an E.M.F. is required to be always in the same direction, because in rotating machines of this nature each conductor moves first in one direction relative to the magnetic force and then in the other, according to whether it is moving above or below its centre of rotation; so it is necessary to reverse the connexions of each conductor to the external circuit correspondingly. If this is not done we get what is known as an *alternating current* instead of a *direct current*. I shall have more to say about alternating currents later. These are the kind of currents used for wireless signals. Before we consider them, however, I propose to clear up a few points which have arisen so far in connexion with my explanations, so if any readers have any such points to raise I hope they will write to me as soon as possible.

VOLUME DISTORTION

By F. M. COLEBROOK, B.Sc., D.I.C., A.C.G.I.
(Radio Division, National Physical Laboratory)

The second of a series of four articles on the meaning of distortion, dealing particularly with the subjective aspect

LET it be supposed that the modulating, transmitting, and reproducing systems are so perfect that the sound wave as received (*i.e.*, $R(t)$) is identical in every respect with the source-wave $S(t)$. It is found, however, that the resulting volume of sound is excessive in the social or domestic circumstances of the listener, and is therefore reduced by an adjustment of a volume control which, being quite uniform in effect with respect to frequency, reduces the received sound-wave to a faithful model of the source-wave on a somewhat smaller scale.

Here the distortion, considered objectively, is of the simplest possible kind, and, by analogy with the enlargement or reduction of pictures or photographs, one would be led to expect that there would be no significant subjective distortion corresponding to it. It is now well known, however, that there will in fact be a very considerable degree of subjective distortion. The reason for this is not easy to make clear, and is, indeed, usually stated in an incomplete and somewhat misleading way.

Loudness and Intensity

The idea of *loudness* is involved. Loudness is the subjective aspect of *intensity*, which is the objective measure of sound energy (the square of sound pressure). There is no difficulty about drawing up a scale of sound intensity. One could take the square of the actual sound pressure P in dynes per square centimetre as an objective measure of intensity, but as there was some reason to think that the relation between loudness and intensity was at least of a logarithmic or exponential character, rather than one of simple proportionality, the logarithm of the sound pressure was taken as the basis of a numerical scale of intensity, and the now familiar decibel notation was introduced. Of two sound waves characterised by pressures P_1 and P_2 , the first (if P_1 is greater than P_2) is said to be $20 \log (P_1/P_2)$ decibels above the second in intensity; or, if P_1 is less than P_2 , $20 \log (P_2/P_1)$ decibels below it. The decibel is thus essentially a measure of relative intensity and when it is applied, as often happens, to an individual intensity, some origin or *datum* level is implied—*e.g.*, the threshold intensity at the frequency of maximum sensitivity.

Measurements of Loudness

This scale of intensity, however, is a totally different thing from a scale of loudness, though the two ideas are sometimes, and unfortunately, confused. Can there be such a thing as a scale of loudness? The physicist would be disposed to reject the idea on the ground that a purely subjective phenomenon is incapable of numerical gradation, and it must be admitted that there is at present no accepted numerical scale of loudness. On the other hand, the physicist would probably agree that even with notes of different pitch there would be, as between different observers, substantial agreement as to equality of loudness, and that in itself implies the qualitative recognition of more and less in loudness. Again, he would agree that loudness increases with intensity, at least between certain lower and upper limits. Thus, there is in the variation of loudness everything required for a numerical scale except the actual numbers, and recent experiments have shown that even these may be forthcoming. Dr. Beatty, for example, has referred in a recent article in *WORLD-RADIO* (September 15, 1933) to the surprising measure of agreement obtained in the

estimate "twice as loud," this estimate corresponding, on an average, to an eightfold increase in intensity (9 decibels). He suggests, moreover, that the doubling of the rate of nervous impulses may lie at the bottom of this numerical mode of perception.

In a letter to *Nature* (May 27, 1933), Messrs. Churcher and King describe experiments which show agreement not only in 2 : 1 estimates of loudness, but also in 4 : 1 estimates, and even, more surprising still, good agreement as between the 4 : 1 estimates and 2 : 1 estimates. On the basis of such estimates, Churcher and King have drawn up the following loudness scale for a note of 800 cycles/second, in relation to the corresponding decibel or objective intensity scale (*i.e.*, $20 \log (P/P_0)$), P and P_0 being the sound pressures corresponding to the given intensity and to the threshold of audibility—*i.e.*, the lowest audible intensity.

| Intensity (decibels above threshold) | Loudness |
|---|----------|
| 0 | 0 |
| 49 | 5 |
| 58.5 | 10 |
| 68.5 | 20 |
| 80 | 40 |
| 87.5 | 60 |
| 94.5 | 80 |
| 100 | 100 |
| 104.5 | 120 |
| 108 | 140 |
| 110 | 160 |

A comparison of these two scales shows at once that loudness is not proportional to intensity in decibels—*i.e.*, putting L for loudness, the numerical scale of loudness is not given by the simple formula

$$L = A \times 20 \log (P/P_0)$$

A being a numerical constant. On the other hand, it will be found that to a fair approximation, the above numbers fit a law of the form

$$L = A \{ (P/P_0)^b - 1 \}$$

This satisfies the condition that L is zero when $P = P_0$,—*i.e.*, at the threshold of audibility—and is also in agreement in form with the general result quoted by Dr. Beatty and referred to above, though the numbers given by him imply a value 0.66 for b , whereas the Churcher and King scale gives $b = 0.5$ in the suggested approximate formula.

Though it would be somewhat optimistic to expect quantitative precision in a law based on the averaging of subjective impressions, something of importance can be deduced from the form of the apparent relation between loudness and intensity—namely, that the nature of the

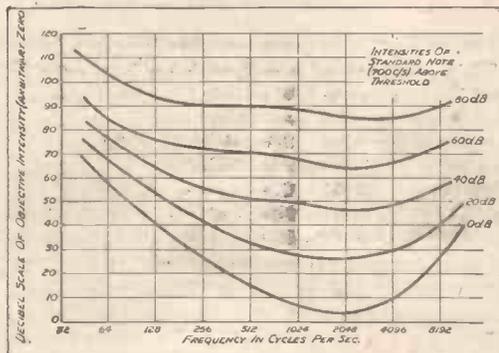


Fig. 3—Curves showing relative objective intensities for equal loudness compared with a note of 700 c/s as standard of reference

relation may in itself be a source of distortion in tonal balance in a complex wave, quite apart from the more generally appreciated possibility of distortion of this kind arising from the variation of ear-sensitiveness with frequency.

Suppose, for example, that the wave contains components of any two different frequencies, the louder having an intensity of 50 dB (about the level of ordinary conversation), and the other about 24 dB below this. On the above loudness scale, the one component would be about 4.8 times as loud as the other (assuming equal sensitiveness to the two frequencies). Now suppose the intensity of each to be reduced to a sixteenth of its original value (about 12 dB down in each case). Then, according to the above formula, the louder of the two, instead of being about 4.9 times as loud as the weaker, will now be about 6.5 times as loud. In general, the original disparity between the tones will increase as the intensity is reduced, the weaker vanishing toward inaudibility appreciably faster than the stronger. Also, the greater the original disparity, the more rapidly will it increase as the intensity is reduced. The only loudness relation that will not depend on absolute intensity is the relation of equality.

Response of the Ear

In all the above, it has been assumed for simplicity (and quite incorrectly) that the ear is equally sensitive and has the same loudness law for all frequencies. This was assumed in order to emphasise the fact that, even if it had, the form of the loudness law might be expected to make the frequency balance dependent on loudness in some cases, and thus demand reproduction at the original studio level as a condition for distortionless reception. It is well known, however, that, in fact, the ear is not equally sensitive to all audible frequencies. Fig. 3 shows, qualitatively, the nature of the variation of behaviour with frequency and intensity. The bottom curve, marked 0dB, is that for the threshold of audibility and shows the relation between the just audible intensities for the various frequencies. The other curves are curves of *equal loudness*, relative to a note of 700 cycles/sec., the intensity of which was adjusted to the stated number of decibels above its own threshold value. (Any reader who wishes to know more of these curves can find a very lucid and informative account of them in an article by Dr. N. W. McLachlan, published in the *Wireless World* for July 29, 1932.)

It is important to realise that these are curves of *equal loudness*, relative to a standard tone, and give no information as to the law relating actual loudness with intensity, though certain definite inferences can be drawn from them. For example, supposing the standard note to be one of 700 cycles per second, then, from the loudness-intensity relation for this note, assuming this to be determinable as by Churcher and King, the corresponding relationship for any other frequency can be derived at once. Again, it is apparent that for intensities above about 50 decibels (that of ordinary speech) the ear is fairly uniform in sensitivity over the greater part of the range of audible frequencies, but that notes of frequencies in the neighbourhood of 100 c/s will fade away to inaudibility, for a given proportional reduction of intensity, much more rapidly than notes corresponding to frequencies in the region of maximum threshold sensitivity (1,000—4,000 c/s). Thus, apart from the unbalancing effect of intensity change as between notes of different original intensities which appears to be inherent in the law of loudness, as explained above, the sensitivity-frequency variation of the ear will produce an unbalancing of relative loudnesses with a change of intensity level even with originally equal intensities.

The full significance of the various unbalancing effects that will arise as a consequence, first,

Space and Matter

By "NEUTRON"

New Micro-Ray Service

THE new micro-ray service between the aerodromes at Lympne and St. Inglevert, to which I have referred previously, was officially inaugurated on January 26 by the Rt. Hon. Sir Philip Sassoon, Under-Secretary of State for Air. The equipment, which was designed and manufactured by Standard Telephones and Cables, Ltd., provides duplex working (simultaneous transmission and reception) when required, but it will normally employ simplex teleprinter working. The two stations operate on wavelengths which are both in the neighbourhood of 17.5 cm., but are sufficiently different to permit simultaneous working without causing local interference and cross-talk troubles. Oscillations are generated by a specially-designed "micro-radion valve." The aerial and reflector assemblies for the transmitter and receiver are similar in construction. The main reflector is paraboloidal—10ft. 6in. diameter—and a spherical reflector, 3 wavelengths in diameter, faces it. The half-wave aerial is placed at the focus of the main reflector which coincides with the centre of the spherical reflector. Modulation may be either speech or the 3,500-cycle signals from the teleprinter unit.

Air-Cell Batteries

In connexion with my paragraph of January 12 regarding the use of air-cell batteries in America for heating the filaments of wireless valves, I have to thank a correspondent for informing me that cells of this type are made in Great Britain and are used extensively by the railway companies and the Post Office. I have obtained further particulars from the manufacturers, Messrs. Le Carbone, Ltd., Spencer House, South Place, London, E.C.2, who inform me that they will be pleased to forward a booklet describing these "AD" cells to any readers who are interested. After the initial outlay on this type of cell there is no maintenance cost for recharging as is the case with accumulators, but the zinc and the electrolyte require renewing periodically as in the ordinary Leclanché cell. One type has a capacity before the zinc requires renewing of 500 ampere-hours for a normal output of 1 ampere for 8 hours a day. As I said before, these cells should prove a boon to listeners in remote areas where there is difficulty in getting accumulators charged.

A.C. Electric Clocks on D.C. Mains

Readers who have tried to operate wireless receivers from D.C. mains fed from mercury—arc rectifiers will know the difficulties caused by the superimposed A.C. ripple. It is interesting, therefore, to learn that this ripple can be made use of for operating electric clocks usually suitable only for A.C. mains. Where the mercury—arc rectifiers are fed from a 3-phase 50-cycle system there is a pronounced third harmonic which, of course, has a frequency of 150 cycles per second. By using a reduction gear of 3 : 1 in a clock intended for operation on a supply whose frequency is 50 cycles per second, the correct rotation of the hands of the clock is obtained, and the clock keeps accurate time if the frequency of the mains is time-controlled. The voltage of the ripple has to be stepped up by means of a transformer to a suitable value, and a condenser is inserted between the mains and the clock to prevent the passage of direct current.

The Positive Electron

Since the positive electron was discovered a year or two ago from the study of cosmic radiation, other methods of producing it have been developed. When aluminium and boron are bombarded by alpha particles (particles of helium emitted by radio-active substances) positive electrons are produced, but when silver and lithium are similarly bombarded there have so far been no indications of the production of positive electrons. There is no doubt that we have a lot to learn about the construction of the atom and the universe as a whole, and it seems possible that the positive electron may prove to be quite as important a constituent as the negative electron.

Surely a Record!

A correspondent of an American radio journal claims to have logged 2,730 stations on a two-valve receiver. This huge total includes 2,165 amateurs in 24 countries, 210 commercial Morse stations, 24 police transmitters, as well as short-wave broadcasting stations.

Answer to Last Week's Problem

Ham-handed Harry had forgotten that he had connected the negative terminal of his H.T. battery to the negative terminal of his L.T. battery and was using a common H.T.—and L.T.—lead to his set. The filament current as well as the anode current therefore flowed through his meter.

of the nature of the law relating loudness to intensity relative to the threshold intensity, and, secondly, of the variation of the threshold intensity with frequency, cannot be depicted without a much more detailed study than is appropriate to the present survey, but the general character of the effect is well known as a matter of common experience. As the intensity is reduced below studio level, there is a progressive weakening of the lower tones relative to the higher and the reproduction becomes "thin" in quality.

Recognition of this fact and of its cause has led to the introduction of various systems of tone-corrected volume-control. It will probably be generally agreed that some improvement in respect of permissible range of loudness consistent with fidelity can be realised in this way, but it should be noted that only one part of the trouble can be approximately cured by such means. That part of the unbalancing which arises from the nature of the law of loudness and which results in a change in the magnitude of the original correct disparity between component intensities will not be curable in this way—it will, indeed, be accentuated for certain frequency relationships.

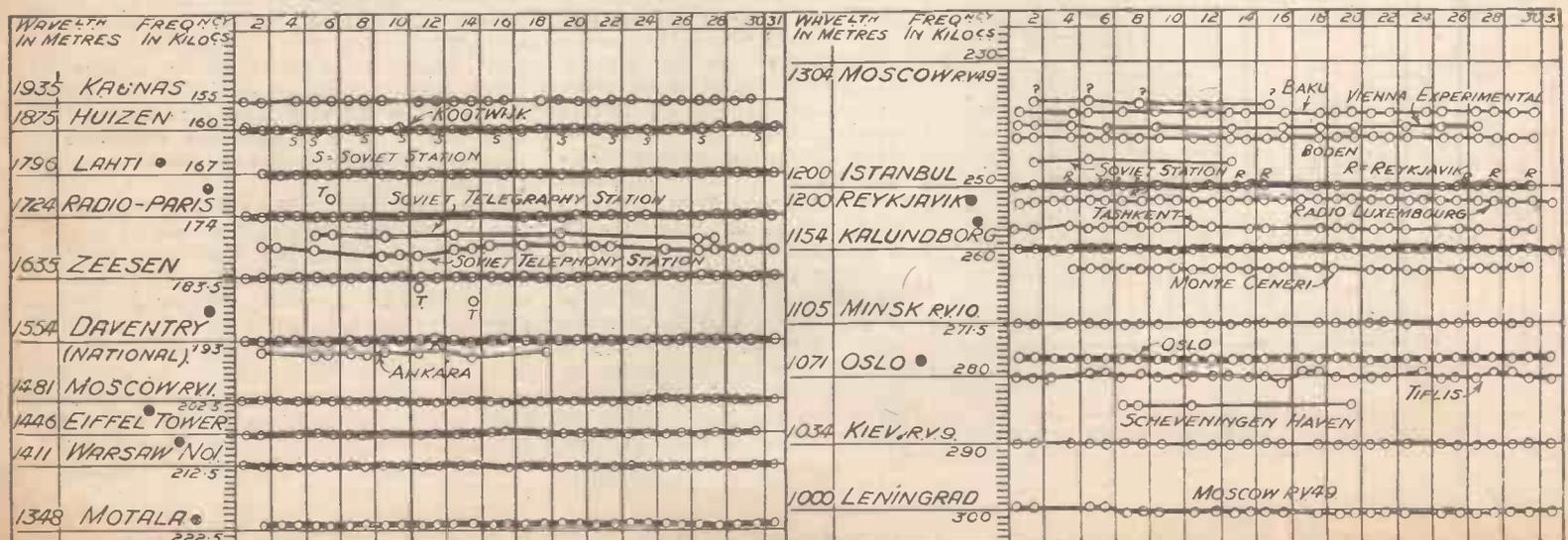
It appears, therefore, that reproduction at the original level is a necessary condition for fidelity. This fact is doubly unfortunate in view of its technical and social implications. Apart from the relatively high cost of equipment of sufficient power, the prospect of the setting up of what is virtually a full-sized orchestra in the small sitting-room of each of a long row of houses, with the added probability that they will not all be playing the same music, is one of those disturbing thoughts which give cogency to recent suggestions that science might now be asked to go away for a long holiday, with the innuendo that if it ever comes back it will be too soon. The rebuilding of all the houses in soundproof form is not, however, the only solution. At the risk of being accused of a King Charles's Headphone obsession, the writer feels constrained to call attention to an obvious, though generally forgotten, remedy. It is also suggested that the real reason why headphone reproduction gives a degree of realism which appears to be quite incompatible with the deplorable frequency-characteristics of all the normal types of headphone lies in the ease with which the equivalent of the full original intensity can be attained with simple equipment of small power.

(To be continued)

Frequencies of Long-Wave European Broadcasting Stations

December Measurements by the Brussels Laboratory of the Technical Committee of the U.I.R.

The Letter T indicates telegraphy transmissions. Stations marked ● are provided with U.I.R. wavemeter



THE SHORT WAVES

SUPER-REGENERATIVE RECEIVERS FOR ULTRA-SHORT WAVES

THE writer, who has been lucky enough to help to create a record for ultra-short wave reception, feels that the following notes, anent the design, construction, and operation of 5-metre sets, may be found useful to fellow amateurs who are interested in this particular branch of wireless.

When dealing with ultra-short waves, frequencies of the order of 60 megacycles per second are encountered, so the type of detector must essentially be highly sensitive at those frequencies. Out of several circuits tested for high sensitivity in this type of work only one or two are worth mentioning.

The Armstrong Circuit

One of these is the Armstrong circuit. This embodies a principle known as super-regeneration, in which the oscillations of a valve are interrupted or quenched at a frequency above the range of audibility, thus permitting the circuit to be worked with negative resistance, thereby giving great sensitivity. The quenching may be done either by the detector itself or by a separate valve. The circuit of Fig. 1, which is at present in use by the writer, is of the former class, followed by a single stage of amplification.

For the satisfactory operation of this, as of any short-wave set, the minimum of dielectric is used, and as will be seen from the diagram, every precaution is taken to isolate H.F. currents from the amplifier. R3 is a grid stopper, which effectually prevents any stray H.F. from reaching the grid of the output valve. The interstage transformer has its core earthed, and is shunt fed via a resistance and a condenser. This arrangement reduces threshold howl, but does not in the least reduce amplification. The variable resistance, R1, provides careful adjustment of detector anode potential, at the same time controlling the amplitude of the quenching frequency. The detector voltage is fairly critical, being of the order of 60/70 volts, depending upon the type of valve in use. It is essential that the valve should slide into oscillation smoothly, without "plops" of the threshold howl. With most modern valves a slight positive bias is necessary to avoid this howl, for which reason the potentiometer P1 of 5,000 ohms is included in the filament circuit.

The design of the quench-coil unit requires care, as the whole problem of successful regeneration devolves upon the determination of the correct quenching frequency. In the circuit under consideration, the coils which make up the unit are (a) L6 of 800 turns of No. 34 S.W.G. enam., and (b) L5 of 500 turns of No. 34 S.W.G. enam. Fig. 2 shows details of this unit.

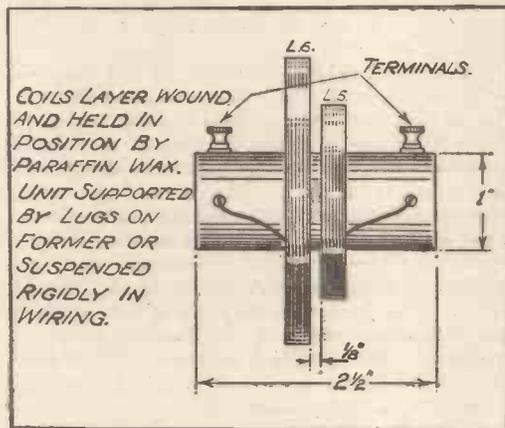


Fig. 2—Details of the quench-unit

With regard to the actual layout of the components, a double-decker wooden chassis is employed, on the top of which is assembled the H.F. circuit, and below, the amplifier. The aerial and earth terminals are mounted on porcelain, stand-off insulators. Such details as chokes, resistances, and the aerial series-condenser, are supported by the wiring. It must be well remembered that the slightest mutual deviation of any of the coils will result in a change of frequency, due either to the variation of capacity between the inductances themselves and/or variation of the coils' self-capacity.

The set has one drawback, namely, the high noise level due to the quenching action and the resultant abnormally high amplification of X's and valve noise. However, this background hiss, which is a characteristic of super-regenerative sets, disappears when a station is tuned in. An alternative method of coupling the aerial to the grid, which somewhat reduces the signal-noise ratio, due to external ignition systems, and lessens the aerial load on the tuned circuit, is shown in Fig. 3.

Operating the Set

When tuning the set, it is a good idea to go to work in this way: Starting with C4, about 70 degrees on the dial, set the resistance R1 almost to maximum and adjust C3 until a faint hiss can be heard in the headphones. After this, as the capacity of C4 is increased, decrease the resistance just to the point at which oscillation occurs, until a station is received. The reception of a carrier wave will result in the immediate cessation of all background noise, and R1 may be further decreased to give greater signal strength. The tuning is naturally very fine, and a micrometer dial with a 500/1 reduction ratio is recommended. Do not become disappointed if at first you fail to receive any stations; at present there are only a few ultra-short-wave transmitters on

the air, yet every motor-car and aeroplane going by sends out terrible crackling noises, due to ignition systems, so, if the set is near a main road, noise level is likely to be very high. Nevertheless, the ability to receive these noises is a testimony to the efficiency of the set.

Should it happen that the detector will not oscillate, try varying the capacity of C3; this alters the effect of the load, or the damping of the aerial on the tuned circuit.

Naturally, the setting of C3 is very delicate, and should be carried out with the aid of a long-handled screwdriver to minimise hand-capacity effects. Try, also, different detector voltages; some valves will require as much as 90 volts before they will generate oscillations.

The valve chosen must have a very small inter-electrode capacity, for the latter is virtually in parallel with the tuned circuit and must not be allowed to influence this in any way. It will be found that valves of the H.L. class are most suited to perform this function.

Careful placing of the quench unit will avoid the possibility of H.F. pick-up and interaction between the coil and other H.F. components.

Where this type of circuit does not function well, owing to the inability of the constructor to combine the operations of detecting and quenching successfully, a separate valve may be used to interrupt the oscillations of the detector. A circuit of this type is shown in Fig. 4. It is not suggested that this is the best circuit of its type; it merely gives an illustration of the principle: for instance, some very interesting results can be obtained by using different quenching schemes.

In dealing with the second type of circuit we have another of the many applications of the pentode, shown in Fig. 4, where the auxiliary grid is supplied with the quenching frequency from an oscillator valve which derives its energy from the common H.T. and L.T. feeds. The value of the quenching periodicity is approximately 20 kc/s, and the amplitude of these alternating potentials is controlled by the potentiometer P1.

The quenching voltages will appear at the anode of the pentode, and if not suppressed will cause distortion of the L.F. component, which is also present. Accordingly, the filter circuit, consisting of C1, C2 and L1, is included. In this case the pentode detector is fed with about 40-60 volts. The presence of a loud hiss in the 'phones indicates that the set is oscillating properly, and that a correct choice of H.T. has been made. If, however, excessive hiss and howling occur, it may be assumed that the detector voltage is too high, and this should be reduced accordingly.

If a milliammeter is available and is connected in the anode circuit, when the grid coil is short-

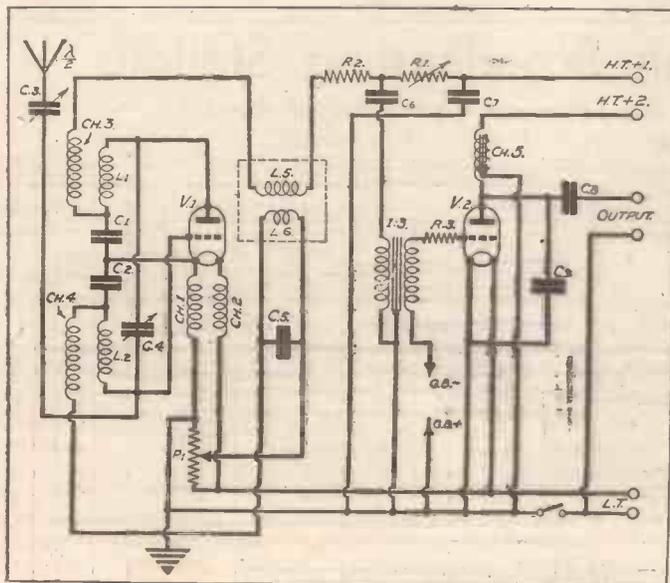


Fig. 1—Circuit of super-regenerative receiver

L1 and L2—each 5 turns 14 S.W.G. copper; L5=800 turns 34 S.W.G. enam. 1in. diam. former; L6=500 turns 34 S.W.G. enam. 1in. diam. former; C1 and C2=5 mmfd.; C3=50 mmfd.; C4=35 mmfd.; C5=1 mmfd.; C6=0.5 mfd.; C7=1 mfd.; C8=2 mfd.; C9=2 mmfd.; CH1 and CH2=35 turns 20 S.W.G. D.S.C. 1/2in. diam. spaced; CH3 and CH4=50 turns 35 S.W.G. D.S.C. 1/2in. diam. spaced; CH5=20 henries; R1=50,000 ohms.; R2=15,000 ohms.; R3=1,000 ohms.; P1=5,000 ohms.

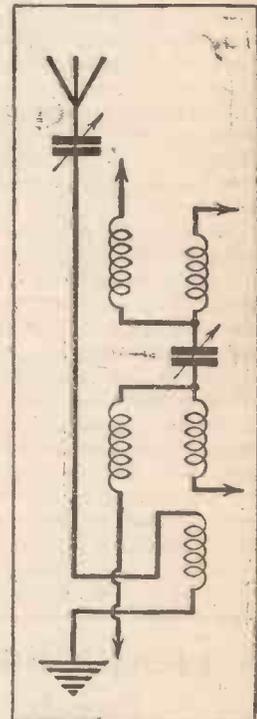


Fig. 3—Alternative aerial coupling

circuited a definite change in anode current will indicate that the set is functioning correctly. When searching for stations, the arm of the potentiometer should be in such a position as to bring the set to the threshold of oscillation, and, as in the self-quenching detector circuit, the reception of a carrier wave will result in the cessation of background hiss.

The use of an individual valve to supply the quenching voltages often overcomes some of the difficulties attendant upon the operation of the self-interrupting type, although the former is perhaps not so easy to construct and operate. It is worth while, if the reader is of an experimental turn of mind, to try out various forms of quenching.

T. E. M.

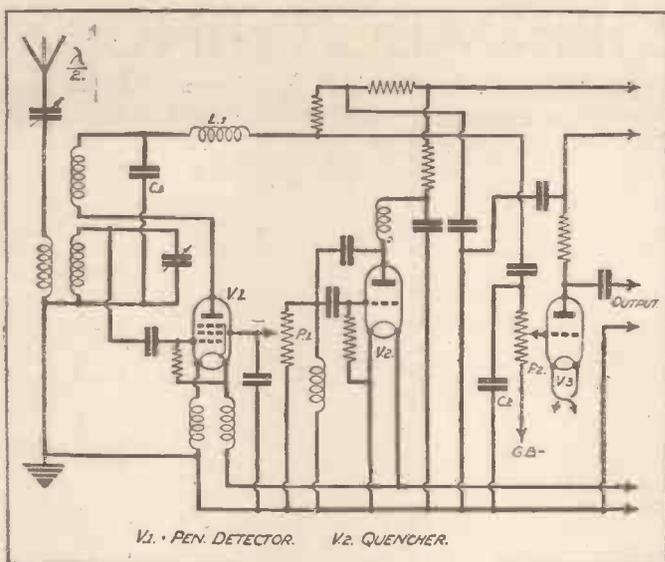


Fig. 4—Circuit arrangement with separate quenching valve

Short Waves on the Continent

By "CENTRAL EUROPEAN"

(January 22—27)

SINCE matters on the medium-wave band have become somewhat turbulent and exciting owing to the wavelength changes in connexion with the Lucerne Plan, one takes refuge in the region of the short waves, a region in which, however, there is unfortunately very little excitement. There are very few transmitters which can be heard at any time of the day. Moreover, they are mostly European stations, for reception of trans-Atlantic stations has almost become a thing of the past in Central Europe.

I was able to obtain confirmation of this last week when I journeyed right across Italy by car. In Turin, Florence, and Rome the same bad reception conditions prevailed as in Central Europe. Well-known Italian short-wave listeners also told me that, ever since about September last, trans-Atlantic reception has been practically impossible. This would appear to coincide with my own experience. I do not feel competent to attempt to explain the fact that reception of American stations should be so excellent in England. The prediction that the year 1933 would be especially good for short-wave reception was not fulfilled; the only good months were February, March, May, and June—which were only "moderate"—and since September conditions have been definitely bad.

During the week under review I have noted a distinct increase in strength of the British Empire transmitters, GSB being the best. This transmitter could be heard at maximum strength during the afternoon, moreover it was perfectly free from fading. Reception of GSA has not been so good, and GSE, though a weak signal in the afternoon, was free from fading and quite intelligible. During the night, however, it improved greatly.

Zeesen DJC (49.83 m.), a station which right through the month of December was very poorly heard, is now giving a good signal, but unfortunately this station has a very strong echo which mars the transmissions somewhat. Radio Colonial (25.25 m.) was only feebly heard. Its strength was never more than R6, although normally this station is a stronger signal than the Empire transmitters. Reception of Vatican City has also been very good on the evening wavelength. Trans-Atlantic reception was very poor, as stated before. W8XK (48.86 m.) alone proved reliable (except when the Russian telegraphy transmitter interfered). Not one U.S.A. station on the 19 m., 25 m., and 31 m. bands could be identified.

Short-Wave Reports

To the Editor of WORLD-RADIO

SIR,—I have not seen any reports from this district for a long period, so I hope the following extracts from my log will be of interest to readers in the North.

- G.M.T.
- Jan. 18—00.20 EAQ (30 m.) R6/FFS/X. Dance Music.
 - " 18—00.40 YVIBC (49.08 m.) R4/FS/X. Music.
 - " 19—16.10 LCL (42.92 m.) R3/FS/N. Orchestra.
 - " 19—22.55 RW59 (50 m.) R7/FS/N. Music.
 - " 19—23.5 W3XL (46.69 m.) R5/FS/N. Play.
 - " 19—23.10 DJC (49.83 m.) R8/FS/N. Gallia America.
 - " 20—16.25 ZRO (25.4 m.) R5/FFS/N. Orchestra.
 - " 20—23.25 W3XAL (49.18 m.) R8/FS/N. Call and Talk.
 - " 20—23.30 W8XK (48.86 m.) R6/FFS/N. Call and Music.
 - " 21—10.5 HVT (50.26 m.) R6/FS/X. Speech.
 - " 21—22.25 CNR (23.39 m.) R6/FS/N. Talk and Music.
 - " 21—22.25 W8XK (48.86 m.) R7/FS/X. Church Service.
 - " 21—23.5 DJC (49.83 m.) R9/N/X. Call and Annet.

My receiver is a home-constructed o-v-1, with 75 ft. outdoor aerial. All reception on 'phones.

Yours faithfully,

Cleveys, Lancs. H. B.

To the Editor of WORLD-RADIO

SIR,—Conditions seem to be improving on the 49-metre band, as the following report shows.

- G.M.T.
- Jan. 23—00.00 W8XK (48.86 m.) R7. Amos and Andy.
 - " 23—00.01 VE9GW (49.22 m.) R4. Amos and Andy.
 - " 23—00.02 W8XAL (49.5 m.) R4. Amos and Andy.
 - " 23—00.03 W4XB (49.67 m.) R5. Amos and Andy.
 - " 23—00.15 YVIBC (49.08 m.) R8. News and call.

I heard W4XB on January 22 for the first time since last winter. YVIBC was an enormous signal, 100 per cent. intelligible. Set, all-wave o-v-2.

Yours faithfully,

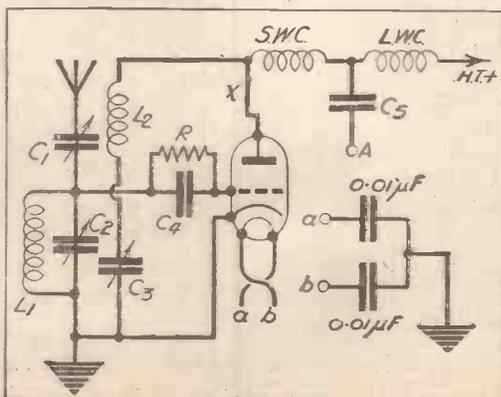
Pitdown, Sussex. R. H.

SCREENED-GRID VALVES AS DETECTORS

The value of the condenser C₁ (Fig. 2, page 133 of last week's issue) should be 0.00004 mfd. and not 0.0004 mfd. as stated.

A READER'S A.C. SHORT-WAVE ADAPTOR

The anode connexion was omitted from the diagram (Fig. 1, page 134) and the completed diagram is reproduced below.



Below 100 Metres

By "MIDLANDER"

(January 22—27)

SHORT-WAVE reception conditions during the afternoon and early evening of the past week have been very poor indeed. These conditions will, of course, be changing very shortly, and as a matter of fact the change is already taking place, beginning with the 49-metre band.

On Monday, January 22, at 9.40 p.m., FYA (25.25 m.) was an excellent signal, marred only by the usual fluttering fade. A quarter of an hour later W8XK (48.86 m.) was heard at very good strength and with practically no fading. Another station just below OXY was heard giving a talk on monetary matters, and was of very good strength. The call, however, was not distinguishable through the interference, but dial adjustments indicated the Canadian station VE9GW (49.22 m.). If this was the station, then the strength was amazing considering the power used—i.e. 0.5 kW.

At 8 p.m. on Tuesday Jelöy (42.92 m.) was an excellent signal of very good quality, suffering only from slight fading. An hour and a half later Jelöy was still of 100 per cent. programme value. OXY (49.4 m.) was quite a loud signal at 9.40 p.m., and a moment or so later W8XK (48.86 m.) was again audible. Rome (25.4 m.) at about this time was being well modulated and was quite a good signal, although quality was none too good.

Wednesday, January 24, was a poor day. During the evening session, at 9.40 p.m., OXY was weak, but Moscow (50 m.) was a very loud signal. On the 25-m. band FYA only was audible, but DJA was an excellent signal on the 31-m. band.

Thursday did not prove to be much of an improvement on the previous day. Nothing was heard during the afternoon or early evening with the exception of Jelöy. At 9.45 p.m. OXY was heard at excellent strength with no fading. Two other stations—believed to be W8XK and VE9GW—were just audible. The German station on 31.38 m. was again an excellent signal just before 10 p.m., while Radio-Colonial on 25.25 m. was also a good signal, but fading rather badly.

Friday showed a marked improvement on the two previous days, for at 4.30 p.m. W8XK (19.72 m.) was audible, although not of high intelligibility. Jelöy at this time was a wonderful signal and of very good quality. At 8 p.m. DJC (49.83 m.) was heard at good strength and was easily 100 per cent. intelligible. OXY was also well received. It is curious that while the German and Danish stations were of very good strength, Moscow—usually a very loud signal—was at this time very weak.

W8XK (48.86 m.) at 9.45 p.m. was again a good signal, but interference and static reduced the programme value. The Canadian station VE9GW was also of good strength, but here again intelligibility was reduced by interference. FYA (25.25 m.) was heard at good strength and—for the first time this week—without appreciable fading. Rome was also a very good signal, although quality is still poor.

At 4.35 p.m. on Saturday the carrier of W8XK (19.72 m.) was plainly audible. Two hours later FYA (25.25 m.) was a variable signal—at times extraordinarily loud and then fading to a mere whisper. Rome also was a good signal as far as volume was concerned. At 6.45 p.m. W8XK was heard at very good strength with about 75 per cent. intelligibility. VE9GW was a surprising signal at this time, being of good strength, but suffering from a good deal of interference. At 9.45 p.m. Jelöy was heard quite well with slight fading, which, however, did not mar intelligibility.

SHORT-WAVE BROADCASTING STATIONS

This list includes stations which broadcast regularly on wavelengths below 100 metres. Where ascertainable the times of operation are given in G.M.T.

| m. | kc/s | kW | Station | Dial Readings | m. | kc/s | kW | Station | Dial Readings |
|-------|------|------|---|---------------|-------|--------|------|---|---------------|
| 80 | 3750 | 0.5 | Lisbon (Portugal) CT1CT. SUN., 2-4 p.m. | ..... | 43 | 6976 | .. | Madrid EAR110. TUES., SAT. 10.30 p.m. | ..... |
| 73 | 4110 | 0.15 | Quito (Ecuador) HCJB. Daily exc. TUES., 12.30-3 a.m. | ..... | 42.92 | 6990 | 1 | Jeløy (Norway) LCL (Relays Oslo). | ..... |
| 70.2 | 4273 | 20 | Kharbarovsk RV15. | ..... | 42 | 7142 | .. | Maracaibo (Venezuela) YV2AM. | ..... |
| 62.56 | 4795 | .. | London (Ontario) VE9BY. Sun., 6 a.m. | ..... | 41.6 | 7211 | 0.05 | Tenerife Radio Club EAR58. | ..... |
| 58.31 | 5145 | .. | Prague OK1MPT. Experimental. | ..... | 40.3 | 7444 | .. | Radio Nations (Switzerland) HBQ. | ..... |
| 58.03 | 5170 | .. | Bandoeng (Java) PMY. | ..... | 38.48 | 7797 | 20 | Radio Nations (Switzerland) HPB. SAT., 10.30 p.m.—12.15 a.m. | ..... |
| 52.7 | 5692 | 0.5 | Tananarive (Madagascar) FIQA. Dly. (ex. SUN.), 8-8.45 a.m., 3-4 p.m. SAT., 5.30-7 p.m., SUN., 7.30-9 a.m. | ..... | 37.33 | 8035 | 10 | Rabat (Radio Maroc) CNR. SUN. 8-9 p.m. | ..... |
| 50.26 | 5969 | 10 | Vatican City (Italy) HVJ. Daily, 7.0-7.15 p.m., SUN., 10-10.30 a.m. also. Barcelona Radio Club (Spain) EAJ25. SAT., 8.30-9.30 p.m. | ..... | 36.65 | 8186 | .. | Rio de Janeiro (Brazil) PSK. | ..... |
| 50 | 6000 | 0.3 | Bucharest (Romania) | ..... | 34.68 | 8650 | .. | London (Ontario) VE9BY. MON., 9-10.0 p.m. and irreg. | ..... |
| 49.96 | 6005 | 0.05 | Moscow RW59. 7-11 p.m. | ..... | 32 | 9374 | 0.2 | Heredia (Costa Rica) TI4NRH. Daily, 11.30 p.m.—1 a.m. | ..... |
| 49.83 | 6020 | 8 | Montreal VE9DR. D'ly ex. SUN., 1 p.m.—5 a.m. SUN., 5 p.m.—5 a.m. | ..... | 31.6 | 9490 | 1 | Poznań (Poland) SR1. (Temporarily Suspended.) | ..... |
| 49.83 | 6020 | 8 | Zeesen DJC (Germany). 6-9.30 p.m.; 11 p.m.—2.30 a.m. | ..... | 31.55 | 9510 | 3 | Caracas (Venezuela) YV3BC. | ..... |
| 49.67 | 6040 | 3 | Boston (Mass.) W1XAL. THURS., 10 p.m.—12.30 a.m. SUN. 12.30-2.30 a.m. | ..... | 31.51 | 9520 | 0.5 | *Davenport GSB. | ..... |
| 49.59 | 6050 | 20 | Miami Beach (Florida) W4XB. | ..... | 31.48 | 9530 | 40 | Melbourne (Australia) VK3ME. WED., 10 a.m.—11.30 a.m., SAT., 10 a.m.—12 noon. | ..... |
| 49.5 | 6060 | 0.5 | *Davenport GSA. | ..... | 31.38 | 9560 | 8 | Skamlebaek (Denmark) OXY. | ..... |
| 49.43 | 6069 | .. | Cincinnati W8XAL. 11 p.m.—6.30 a.m. 11 a.m.—3.30 p.m. and 6.30-8.30 p.m. | ..... | 31.35 | 9570 | 5 | Schenectady (N.Y.) W2XAF. Daily, 12.45 a.m.—4 a.m. | ..... |
| 49.4 | 6075 | 0.02 | Nairobi (Kenya) VQ7LO. Daily 1-7 p.m. (SAT. to 8 p.m.). | ..... | 31.27 | 9595 | 18 | Zeesen (Germany) DJA, 1-4 p.m.; 10 p.m.—1 a.m. | ..... |
| 49.34 | 6080 | 0.5 | Philadelphia (Pa.) W3XAU. Daily, 1-6 a.m. | ..... | 31.25 | 9600 | 2 | Springfield (Mass.) W1XAZ. Daily, from 1 p.m. | ..... |
| 49.3 | 6085 | .. | Vancouver (B.C.) VE9CS. SAT., 5.30-6.45 a.m. SUN., 5 p.m.—5 a.m. (MON). | ..... | 31.28 | 9590 | 1 | *Davenport GSC. | ..... |
| 49.26 | 6090 | 0.1 | Vienna Experimental OER2. TUES. and THURS. (at intervals) from 1.30-9 p.m. | ..... | 31.27 | 9595 | 20 | Philadelphia (Pa.) W3XAU. 5-11 p.m. | ..... |
| 49.22 | 6095 | 0.5 | Skamlebaek (Denmark) OXY. Relays Copenhagen. Daily 6 p.m.—11 p.m. | ..... | 31.27 | 9595 | 18 | Sydney (Australia) VK2ME. SUN., 6-8 a.m.; 10 a.m.—4 p.m. | ..... |
| 49.18 | 6100 | 5 | Chicago (Ill.) W9XAA. Relays WCFL. SUN., 3 p.m.—1 a.m. (MON.). | ..... | 30 | 10,000 | 20 | Radio Nations (Switzerland) HBL. SAT., 10-10.45 p.m. | ..... |
| 49.1 | 6109 | 0.5 | La Paz (Bolivia) CP5. 11.30 p.m.—1 a.m., 2 a.m.—4.30 a.m. | ..... | 29.04 | 10,330 | .. | Lisbon (Portugal) CT1AA. TUES. and FRI., 9.30-12 m'nt. | ..... |
| 49.09 | 6110 | 0.2 | St. John (New Brunswick) VE9BJ. Daily, 12 m'nt.—1.30 a.m. | ..... | 28.36 | 10,578 | .. | Madrid (Spain) EAQ. Daily, 11 p.m.—1 a.m. | ..... |
| 49.08 | 6112 | 0.2 | Bowmanville (Canada) VE9GW. Daily, 8 p.m.—5 a.m. (FRI., SAT., from 1 p.m.); SUN., 5 p.m., 4.30 a.m. | ..... | 26.83 | 11,181 | 0.05 | Ruyselede (Belgium). Relays Brussels 6 p.m. | ..... |
| 49.02 | 6120 | 10 | Bound Brook (N.J.) W3XAL. SAT., 10.30 p.m.—6 a.m. (SUN.). | ..... | 25.63 | 11,705 | 15 | Paris (France) FYB. Time Sig., 10.26 a.m. and 11.26 p.m. | ..... |
| 49 | 6122 | 5 | Chicago (Ill.) W9XF. SUN., 2-7 a.m., 9.30 p.m.—12 m'nt. Weekdays, 2.30-7 a.m., 9.30 p.m.—1 a.m. (Ex. SAT.). | ..... | 25.63 | 11,705 | 15 | Funchal (Madeira). CT3AQ. TUES., and THURS., 10 p.m.—11.30 p.m., SUN., 3.30-5 p.m. | ..... |
| 48.95 | 6127 | .. | Calcutta (India) VUC. D'ly (ex. Fri. & Sat.), 3.30-6 p.m.; Fri. 2.30-3 p.m. Sat. 5.45-9 p.m. | ..... | 25.57 | 11,730 | 20 | Radio Colonial (Paris) FYA. 8 p.m.—2 a.m., 3-5 a.m. | ..... |
| 48.9 | 6130 | .. | Halifax (N.S.) VE9HX. SAT. & SUN., 10 p.m.—4 a.m. Wk'day., 2.30-5.30 p.m. | ..... | 25.53 | 11,750 | 20 | Winnipeg (Canada) VE9JR Experimental. Daily (ex. SAT. and SUN.) (at intervals), from 2.30 p.m.—3 a.m. | ..... |
| 48.86 | 6140 | 40 | Caracas (Venezuela) YV1BC. Daily (ex. SUN.), 4-6.30 p.m., 10.45 p.m.—3.30 a.m. SUN., 2-4.30 p.m., 7-11.30 p.m., 12.30-3.30 a.m. | ..... | 25.51 | 11,760 | 8 | SAT., 2.30 p.m.—5 a.m. SUN., 2-3 a.m. | ..... |
| 48.6 | 6170 | .. | Wayne (N.J.) W2XE. 11 p.m.—4 a.m. | ..... | 25.45 | 11,790 | 5 | Eindhoven (Holland) PHI. (ex. TUES. and WED.) 1-4 p.m. | ..... |
| 48.34 | 6209 | .. | Johannesburg (S.A.) ZTJ. D'ly (ex. SUN.), 4.45-5.30 a.m., 9 a.m.—12 n'n, 2-8.30 p.m. (9.45 p.m. SAT.). SUN., 1-3.30 p.m., 5.30-8 p.m. | ..... | 25.45 | 11,790 | 5 | *Davenport GSD. | ..... |
| 48 | 6250 | .. | Maracaibo (Venezuela) YV2BMO. | ..... | 25.4 | 11,810 | 9 | Zeesen DJD (Germany). 6-9.30 p.m. | ..... |
| 46.69 | 6425 | 18 | Bogotá (Colombia) HJ4ABE. | ..... | 25.36 | 11,830 | 1 | Boston (Mass.) W1XAL. SAT., 10.30 p.m.—4 a.m. | ..... |
| 46.67 | 6426 | .. | Kuala Lumpur (Fed. Malay States) ZGE. TUES. and FRI., 11.30 a.m.—1.30 p.m. SUN., noon-2 p.m. | ..... | 25.28 | 11,865 | 20 | Rome (Italy) ZRO. | ..... |
| 45.75 | 6556 | 0.2 | Pittsburgh W8XK, 9.30 p.m.—5 a.m. | ..... | 25.27 | 11,870 | 40 | Wayne (N.J.) W2XE. 8-10 p.m. | ..... |
| 45.38 | 6610 | 10 | Bogotá (Columbia) HJ3ABI. | ..... | 25.25 | 11,880 | 15 | *Davenport GSE. | ..... |
| 45.31 | 6620 | .. | Caracas (Venezuela) YV3BC. | ..... | 25 | 12,000 | 20 | Pittsburgh W8XK. 9.30 p.m.—3 a.m. | ..... |
| 45 | 6667 | 0.01 | Casablanca (N. Africa) CN8MC. Relays Rabat. MON., 8-9 p.m., TUES., 12 m'nt-1, and 8-9 p.m. | ..... | 24.53 | 12,229 | 0.5 | Radio Colonial (Paris) FYA. 4.15-7.15 p.m. 8-11 p.m. | ..... |
| | | 0.2 | Bogotá (Columbia) HJ3ABF. | ..... | 19.84 | 15,120 | 10 | Moscow (Russia) RNE. | ..... |
| | | 0.2 | Bound Brook (N.J.) W3XL. Experimental) FRI., 10.30 p.m.—6 a.m. SAT. | ..... | 19.82 | 15,140 | 15 | Lisbon (Portugal) CT1CT. SUN., Noon-2 p.m. THURS. 9-11 p.m. | ..... |
| | | 0.2 | London (Ontario) VE9BY. THURS., 2.30-3.30 a.m. SAT., 1-1.55 a.m., and SUN., 2-4 a.m. | ..... | 19.73 | 15,200 | 8 | Rabat (Radio Maroc) CNR. SUN., 12.30 p.m. | ..... |
| | | 0.2 | Manizales (Colombia) HJ4ABB. SUN., 3-4 a.m. | ..... | 19.72 | 15,210 | 40 | Vatican City (Italy) HVJ. 10-10.15 a.m. | ..... |
| | | 0.2 | Moscow RW72 (Russia). | ..... | 19.68 | 15,243 | 15 | *Davenport GSF. | ..... |
| | | 0.2 | Riobamba (Ecuador) PRADO. FRI., 2-4.40 a.m. | ..... | 19.67 | 15,250 | 5 | Zeesen (Germany) DJB. 5.35-7 a.m. | ..... |
| | | 0.2 | Guatemala City (S. America) TGW. Daily, 3-5 a.m. | ..... | 19.64 | 15,270 | 15 | Pittsburgh W8XK. 3-9.15 p.m. | ..... |
| | | 0.2 | Constantine (Algeria) 8KR. | ..... | 19.61 | 15,295 | .. | Radio Colonial (Paris) FYA. 1-4 p.m. | ..... |
| | | 0.2 |  | ..... | 19.56 | 15,330 | 20 | Boston (Mass.) W1XAL. SUN. 3.50 p.m.—6.30 p.m. | ..... |
| | | 0.2 |  | ..... | 17.33 | 17,310 | .. | Wayne (N.J.) W2XE. 4-6 p.m. | ..... |
| | | 0.2 |  | ..... | 16.89 | 17,760 | 8 | La Paz (Bolivia). CP4. 4.30-5.30 p.m. | ..... |
| | | 0.2 |  | ..... | 16.88 | 17,770 | 20 | Schenectady W2XAD. MON., WED., and FRI., 7.30-8.30 p.m. SUN., 7-9 p.m. | ..... |
| | | 0.2 |  | ..... | 16.87 | 17,780 | 14 | Bound Brook (N.J.) W3XL. FRI., 4-10 p.m. | ..... |
| | | 0.2 |  | ..... | 16.86 | 17,790 | 15 | Zeesen (Germany) DJE. | ..... |
| | | 0.2 |  | ..... | 13.93 | 21,540 | .. | Eindhoven (Holland) PHI. MON., THURS. and FRI., 12.30-2.30 p.m.; SAT. and SUN., 12.30-3 p.m. | ..... |
| | | 0.2 |  | ..... |  |  |  | Bound Brook (N.J.) W3XAL. Daily (ex. FRI.), 4-10 p.m. | ..... |
| | | 0.2 |  | ..... |  |  |  | *Davenport GSC. | ..... |
| | | 0.2 |  | ..... |  |  |  | Pittsburgh W8XK. Noon-7 p.m. | ..... |

* The Empire Transmitters are occasionally interchanged.

(For Long and Medium-Wave Stations see page 174)

Last Week's Log

(January 21-27)

By "THE SEARCHER"

THE first week of the Lucerne Plan's working did not run too smoothly, but during the second, which is the subject of this report, a great improvement occurred. Between January 15 and 20, the long waves were almost hopeless, but during the week from the 21st to the 27th most of our old friends returned to form. Huizen had some background interference on the Monday, and was not transmitting when I tried for it on the Thursday. At other times good reception prevailed. Radio-Paris has been heterodyned, but was clear on the Thursday and Friday. The Deutschlandsender and Warsaw have both come in well. Kalundborg is generally free from interference, but its strength was slightly below normal on the Thursday and the Saturday. Oslo has provided excellent reception.

Budapest has an excellent record for the week. Beromünster, Athlone, and Mühlacker have all been strong and clear. Vienna was good on most evenings, but had a slight heterodyne on the Monday. Florence scored full marks on most evenings.

Brussels No. 1 was slightly heterodyned at the beginning of the week, but was clear from the Wednesday onwards. Prague, for some reason or other, does not appear in the log. Lyons PTT was good on the Monday, slightly heterodyned on the Tuesday, very good on the Thursday, and rather below its best strength on the Friday. Langenberg has always been good, and Radio-Suisse Romande can generally be relied upon for good reception. At present I cannot make much of Stockholm, but Rome is first-rate. Munich was slightly heterodyned on the Thursday, but was otherwise good. Marseilles was at its best on the Thursday.

Leipzig and Milan have both had a slight heterodyne all the week. Berlin Tegel was clear of interference except on the Tuesday. Strasbourg was heterodyned on most evenings. Radio-Toulouse was good on the Monday and Friday, but heterodyned on the Tuesday, Wednesday, and Thursday.

Hamburg is clear, though not as a rule very strong; its best night was the Wednesday. On the same night Brussels No. 2 came in particularly well. Breslau is generally good, though there was a heterodyne on the Thursday. The Poste Parisien has a good record except for the Monday evening. Hilversum had only one bad evening, the Wednesday, when a heterodyne was noticeable.

Heilsberg has had a very poor time, never having been free from heterodyne interference. Frankfurt was very good on the Wednesday, when it came through without interference from its wavelength partners. On other nights these formed a distinct background. Trieste came in well on the Wednesday and the Friday. Gleiwitz has a wavelength of its own according to the official list, but reception of the station suggested that this was being used simultaneously by someone else. Bordeaux PTT now seems to have rid itself of its troubles—it was coming in clearly and well at the end of the week.

It will be seen that stations are rapidly settling down to the new order of things. What interference there is appears to be due mainly to slight wavelength wandering on the part of stations using group or shared wavelengths. I have little doubt that in a week or two peace will reign over the medium waveband. What will happen on the long waves no one can yet say, though here again the signs are encouraging.

Trans-Atlantic Reception

(January 11-25)

IN contrast to the previous fortnight, reception of the medium-wave American stations during the past fourteen days has been poor. While the previous fortnight presented us with extremely good reception on several successive nights, the average signal strength of the majority of the United States stations during the period now under review has remained low. Nevertheless, many of the more prominent stations have been audible, and it is quite probable that conditions will improve again during the following fortnight. The rule concerning the effect of the moon on trans-Atlantic reception conditions has rather fallen out of favour this time, as the last period of good reception followed after the full moon, and now, in the period before the full moon, conditions have deteriorated again.

On the night of the 24th-25th, the best average signals were WAAB, Boston, and WABC, New York; WCAU, however, was a weak signal. WIOD was also an outstanding signal, but unfortunately this station sometimes suffers from a synchronisation "wobble" as it shares a wavelength with seven other United States stations, besides two low-power stations in Mexico and Cuba. Incidentally, it would be interesting to learn what effect, if any, some of the high-power United States stations have on the reception in South America of low-power South American stations sharing the same wavelengths. Does, for instance, a station such as CMGF in Cuba, a 50-watt station on 302.8 metres, suffer interference from WBZ or LR4, all on the same wavelength?

Reception on the night of the 25th-26th was slightly better, a general increase in signal strength being noted at about 12.40. (On the previous night also, signals were poor until about 12.30, after which a general improvement set in.) At 1.35, WCAU was very good, and a few moments later WPG was heard at excellent speaker volume. On both these nights, a station, presumably Russian, was heard just above WBZ, conducting a two-way conversation, and although, on the first occasion, that transmission was received at only medium strength and the Americans audible near its wavelength were fairly good signals, on the second occasion the Russian was considerably louder, while the Americans were weaker. One night, therefore, produced better signals from the west and the next night from the east.

Several times recently, a local oscillator has been at work on some of the United States stations after midnight in the writer's vicinity. It is unfortunate that the possibility of hearing trans-Atlantic stations should be spoiled in this manner, and it is hardly wise to attempt to receive trans-Atlantic stations on a small receiver which is in an oscillating condition. Usually, the actual programmes are not the chief interest in listening to distant stations, and, if reception conditions are good at the time, it is thus possible, when one station suffers such interference, to change quickly to another station. The very fact that it is possible to hear some of the trans-Atlantic stations on small receivers on certain occasions is an attraction, of course, but owners of such receivers would be well-advised to provide themselves with a single stage of high-frequency amplification before embarking on trans-Atlantic hunting. M.B.

U.S.A. Medium-Wave Stations

A complete list of all the medium-wave broadcasting stations in the United States will be printed in the next two issues of WORLD-RADIO. The list, which will have been revised in accordance with the latest available official information, will give the stations in order of wavelength, and will include the call-sign, situation, and power of every medium-wave station known to be in operation.

Radio Up a Tree

FOR some weeks now I have been living in a little hut built for me in a tree. Mind, I do not say that it would be a good thing for everyone to live in a tree. In fact, I doubt whether everyone would care to do so. And I grant that it also has its drawbacks—especially at this time of the year, and if it happens to be a tree near a village.

I am not prepared to say that life in a tree could not be happy without a wireless set. I daresay that it could. What I do say, however, is that the amenities of tree life are immensely enhanced if one does chance to own a receiving set.

If, as in my case, certain folk—who, after all, ought to know better—complain that they are constantly being startled by strange outlandish voices floating down through the trees at night time when they happen to be passing, I honestly can't see that I can help it.

They tell me that old Jarge Goomper scrambled into the Cow's Heel the other evening in a state of collapse, swearing that he had been chased through the lane by a "sperrit with a furrin', skeery kinda voice." Silly old man. Of course, I promptly said it had nothing to do with me.

That I manipulate my set to mystify and affright I fervently and fearlessly deny. If, now and again, the set does emit a little shriek, a little moan—and what set does not occasionally do so?—surely that cannot be distorted into a design to play on the simple fears of the villagers by purposely working it in an unorthodox manner?

As to living in a tree—why, I make no apology for that. And being, so to speak, firmly perched in my tree, I do not intend to be easily dislodged. Let them, if they must—and as I hear they propose doing—convene a meeting of protest headed by the vicar. I repeat, let them. But, really, now, protest against what? Protest because I find it satisfies something deep-rooted in my being to live in a tree? There is no law against living in a tree—or if there is I have never heard of it. People have lived in trees before, and will again. Nor is there any ukase, so far as I know, about switching on a wireless set during one's sojourn amid the foliage.

Meanwhile, I shall live in a tree. I have done. I do.

J. H. P.

MISCELLANEOUS

GRAMOPHONES, Radiograms, 64-page "How to Make'm" 3d. Motors, Pick-ups.—Regentrad, 120, Old St., London, E.C.1.

PIANO Accordians from 2/- weekly. Guitars, Concertinas, Violins, Banjos, Drums, etc. All Instruments. Write Lists. Vickers, Dept. X., Royal Hill, S.E.10.

MORE STATIONS

are every day crowding each other and making clear reception very difficult. Don't put up with that annoying background that interferes with the complete enjoyment of your set.



FIX A PIX

A Pix fixed in your aerial will reduce interference to a minimum on any set, because it sharpens tuning to a knife edge. You will be pleasantly surprised at the number of new stations you can hear clearly. Send us 2/- P.O., try it on your set for a week, if you are not completely satisfied with the result return it to us for full refund.

2/- WITH HANDY HOLDER 2/6

The British Pix Co., Ltd., Southwark Street, S.E.1.

STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS

Corrected in accordance with the latest official information available at the time of going to press

| kc/s | m. | kW | Station | Dial Readings | kc/s | m. | kW | Station | Dial Readings |
|----------------------------------|-------|-----|--|---------------|------|-------|------|--|---------------|
| <i>Band No. 1. 150—300 kc/s</i> | | | | | | | | | |
| 160 | 1875 | 20 | Brasov (Romania) | | 859 | 349.2 | 10 | Simferopol (U.S.S.R.) | |
| 167 | 1796 | 75 | Radio-Paris (France) | | 868 | 345.6 | 1.7 | Strasbourg (France) | |
| 175 | 1714 | 500 | Moscow I (U.S.S.R.) | | 877 | 342.1 | 50 | Poznań (Poland) | |
| 183 | 1639 | 7 | Ankara (Turkey) | | 886 | 338.6 | 7 | London Regional (Gt. Britain) | |
| 191 | 1571 | 60 | Deutschlandsender (Germany) | | 895 | 335.2 | 10 | Graz (Austria) | |
| 200 | 1500 | 30 | Daventry National (Gt. Britain) | | 904 | 331.9 | 100 | Radio Toulouse (France) | |
| 208 | 1442 | 100 | Minsk (U.S.S.R.) | | 913 | 328.6 | 0.5 | Helsinki (Finland) | |
| 216 | 1389 | 30 | Motala (Sweden) | | 922 | 325.4 | 10 | Hamburg (Germany) | |
| 223 | 1345 | 7 | Huizen (Holland) (Hilversum pgrm. and anncts.) | | 932 | 321.9 | 15 | Limoges (PTT) (France) | |
| 230 | 1304 | 120 | Kootwijk (Holland) (Transmits Hilversum programme after 3.40 p.m.) | | 941 | 318.8 | 12 | Dniepropetrovsk (U.S.S.R.) | |
| 238 | 1261 | 75 | Kharkov (U.S.S.R.) | | 950 | 315.8 | 60 | Brno (Czechoslovakia) | |
| 245 | 1224 | 100 | Warsaw (Poland) | | 959 | 312.8 | 1.2 | Brussels (Belgium) | |
| 253 | 1186 | 60 | Kalundborg (Denmark) | | 968 | 309.9 | 10 | Algiers (Algeria) | |
| 262 | 1145 | 40 | Leningrad (U.S.S.R.) | | 977 | 307.1 | 50 | Göteborg (Sweden) | |
| 271 | 1107 | 100 | Oslo (Norway) | | 986 | 304.3 | 2 | Breslau (Germany) | |
| | | | Lahti (Finland) | | 995 | 301.5 | 20 | Poste Parisien (France) | |
| | | | Moscow II (U.S.S.R.) | | | | | Gomel (U.S.S.R.) | |
| <i>Band No. 2. 300—500 kc/s</i> | | | | | | | | | |
| 355 | 845 | 1 | Finmark (Norway) | | 1004 | 298.8 | 13.5 | Grenoble (France) | |
| 364 | 824 | 10 | Rostov-on-Don (U.S.S.R.) | | 1013 | 296.2 | 50 | Odessa (U.S.S.R.) | |
| 392 | 765 | 0.6 | Smolensk (U.S.S.R.) | | 1022 | 293.5 | 10 | Oukhta (or Tiraspol) (U.S.S.R.) | |
| 401 | 748 | 1.3 | Östersund (Sweden) | | 1031 | 291 | 60 | W. Regional (Gt. Britain) | |
| 413.5 | 726 | 0.6 | Geneva (Switzerland) | | 1040 | 288.5 | 5 | Genoa (Italy) | |
| 431 | 696 | 2 | Moscow III (U.S.S.R.) | | 1050 | 285.7 | 10 | Cracow (Poland) | |
| | | | Boden (Sweden) | | 1059 | 283.3 | 50 | Hilversum (Holland) (Huizen pgrm. and anncts.) | |
| | | | Voroneje (U.S.S.R.) | | 1068 | 280.9 | 20 | Bratislava (Czechoslovakia) | |
| | | | Oulu (Uleaborg) (Finland) | | 1077 | 278.6 | 10 | North National (Gt. Britain) | |
| <i>Band No. 3. 500—1500 kc/s</i> | | | | | | | | | |
| 519 | 578 | 0.7 | Hamar (Norway) | | 1086 | 276.2 | 2 | Tchernigov (U.S.S.R.) | |
| 527 | 569.3 | 0.5 | Innsbruck (Austria) | | 1095 | 274 | 7 | Barcelona EAJ15 (Spain) | |
| 536 | 559.7 | 1 | Ljubljana (Yugoslavia) | | 1104 | 271.7 | 10 | Heilsberg (Germany) | |
| 546 | 549.5 | 120 | Tampere (Finland) | | 1113 | 269.5 | 5 | Paredo (Portugal) | |
| 556 | 539.6 | 60 | Finnish Common Wave (Finland) | | 1122 | 267.4 | 10 | Leningrad II (U.S.S.R.) | |
| 565 | 531 | 3 | Bolzano (Italy) | | 1131 | 265.3 | 2.5 | Rennes (PTT) (France) | |
| 574 | 522.6 | 100 | Wilno (Poland) | | 1140 | 263.2 | 10 | Krasnodar (U.S.S.R.) | |
| 583 | 514.6 | 15 | Budapest (Hungary) | | 1149 | 261.1 | 50 | Scottish National (Gt. Britain) | |
| 592 | 506.8 | 120 | Beromünster (Switzerland) | | 1158 | 259.1 | 10 | Bari (Italy) | |
| 601 | 499.2 | 6.5 | Athlone (Irish Free State) | | 1167 | 257.1 | 15 | Tiraspol (or Odessa) (U.S.S.R.) | |
| 610 | 491.8 | 10 | Palermo (Italy) | | 1176 | 255.1 | 10 | Bordeaux (PTT) (France) | |
| 620 | 483.9 | 15 | Mühlacker (Germany) | | 1185 | 253.2 | 17 | Falun (Sweden) | |
| 629 | 476.9 | 1.2 | Madona (Latvia) | | 1195 | 251 | 5 | Zagreb (Yugoslavia) | |
| 638 | 470.2 | 120 | Vienna (Austria) | | 1204 | 249.2 | 1.5 | Madrid EAJ7 (Spain) | |
| 648 | 463 | 15 | Rabat (Morocco) | | 1213 | 247.3 | 10 | Vinnitsa (U.S.S.R.) | |
| 658 | 455.9 | 60 | Sundsvall (Sweden) | | 1222 | 245.5 | 5 | Naples (Italy) | |
| 668 | 449.1 | 50 | Florence (Italy) | | 1231 | 243.7 | 0.25 | Kosice (Czechoslovakia) | |
| 677 | 443.1 | 25 | Murmansk (U.S.S.R.) | | 1240 | 241.9 | 1 | Belfast (Gt. Britain) | |
| 686 | 437.3 | 2.5 | Brussels I (Belgium) | | 1249 | 240.2 | 150 | Hörby (Sweden) | |
| 695 | 431.7 | 7 | Trondheim (Norway) | | 1258 | 238.5 | 0.5 | Turin (Italy) | |
| 704 | 426.1 | 55 | Prague I (Czechoslovakia) | | 1267 | 236.8 | 2 | London National (Gt. Britain) | |
| 713 | 420.8 | 50 | Lyons (PTT) (France) | | 1276 | 235.1 | 0.7 | West National (Gt. Britain) | |
| 722 | 415.5 | 100 | Petrozavodsk (U.S.S.R.) | | 1285 | 233.5 | 1 | Moravská - Ostrava (Czechoslovakia) | |
| 731 | 410.4 | 3 | Langenberg (Germany) | | 1294 | 231.8 | 0.5 | Monte Ceneri (Switzerland) | |
| 740 | 405.4 | 100 | North Regional (Gt. Britain) | | 1303 | 230.2 | 0.5 | Copenhagen (Denmark) | |
| 749 | 400.5 | 5 | Sottens (Switzerland) | | 1312 | 228.7 | 1.25 | Kharkov II (U.S.S.R.) | |
| 749 | 400.5 | 13 | Belgrade (Yugoslavia) | | 1321 | 227.1 | 0.8 | Frankfurt (Germany) | |
| 758 | 395.8 | 12 | Paris (PTT) (France) | | 1330 | 225.6 | 1.5 | Freiburg-im-Breisgau (Germany) | |
| 767 | 391.1 | 25 | Stockholm (Sweden) | | 1339 | 224 | 5 | Kaiserslautern (Germany) | |
| 776 | 386.6 | 2 | Rome (Italy) | | | | | Trier (Germany) | |
| 785 | 382.2 | 120 | Kiev (U.S.S.R.) | | | | | Prague II (Czechoslovakia) | |
| 795 | 377.4 | 0.5 | Seville (Spain) | | | | | Lille (PTT) (France) | |
| 804 | 373.1 | 20 | Tallinn (Estonia) | | | | | Trieste (Italy) | |
| 814 | 368.6 | 50 | Munich (Germany) | | | | | Gleiwitz (Germany) | |
| 823 | 364.5 | 12 | Marseilles (PTT) (France) | | | | | German Common Wave (Germany) | |
| 832 | 360.6 | 100 | Viihuri (Finland) | | | | | Cork (I.F.S.) | |
| 841 | 356.7 | 100 | Katowice (Poland) | | | | | Luxembourg (Luxembourg) | |
| 850 | 352.9 | 1 | Midland Regional (Gt. Britain) | | | | | Riga (Latvia) | |
| | | 9.7 | Stalino (U.S.S.R.) | | | | | Rome II (Italy) | |
| | | 1.5 | Toulouse (PTT) (France) | | | | | San Sebastian (Spain) | |
| | | | Leipzig (Germany) | | | | | Augsburg (Germany) | |
| | | | Barcelona EAJ1 (Spain) | | | | | Nürnberg (Germany) | |
| | | | Lwów (Poland) | | | | | Bodö (Norway) | |
| | | | Salonica (Greece) | | | | | Fredriksstad (Norway) | |
| | | | Scottish Regional (Gt. Britain) | | | | | Porsgrund (Norway) | |
| | | | Milan (Italy) | | | | | Stavanger (Norway) | |
| | | | Bucharest (Romania) | | | | | Aberdeen (Gt. Britain) | |
| | | | Moscow IV (U.S.S.R.) | | | | | Linz (Austria) | |
| | | | Berlin (Germany) | | | | | Dornbirn (Austria) | |
| | | | Bergen (Norway) | | | | | Salzburg (Austria) | |
| | | | Norwegian Common Wave (Norway) | | | | | Danzig (Danzig Free City) | |
| | | | Sofia (Bulgaria) | | | | | Swedish Common Wave (Sweden) | |
| | | | Valencia (Spain) | | | | | Budapest II (Hungary) | |
| | | | | | | | | Bremen (Germany) | |
| | | | | | | | | Flensburg (Germany) | |
| | | | | | | | | Hanover (Germany) | |
| | | | | | | | | Magdeburg (Germany) (relays Hamburg) | |
| | | | | | | | | Stettin (Germany) (rly's Hamburg) | |
| | | | | | | | | Montpellier (PTT) (France) | |

STATIONS IN ORDER OF FREQUENCIES AND WAVELENGTHS (Continued)

| kc/s | m. | kW | Station | Dial Readings | kc/s | m. | kW | Station | Dial Readings |
|------|-------|------|---------------------------|---------------|------|-------|------|--------------------------------------|---------------|
| 1348 | 222.6 | 1 | Dublin (Irish Free State) | } | 1420 | 211.3 | 1.5 | Finland Common Wave .. | } |
| | | 2 | Radio Vitus (France) | | | | 2 | Paris Radio LL (France) .. | |
| | | 0.5 | Königsberg (Germany) .. | | | | 2 | Beziers (France) .. | |
| | | 1.7 | Lodz (Poland) .. | | | | 0.5 | Klagenfurt (Austria) .. | |
| 1348 | 222.6 | 2 | Juan-les-Pins (France) .. | } | 1429 | 209.9 | 1 | Newcastle (Gt. Britain) .. | } |
| | | 4 | Milan II (Italy) .. | | | | 100 | Minsk RV10 (Russia) .. | |
| | | 0.08 | Notodden (Norway) .. | | | | 1.25 | Magyarovar (Hungary) .. | |
| | | 0.15 | Rjukan (Norway) .. | | | | 1.25 | Miskolc (Hungary) .. | |
| 1357 | 221.1 | 0.35 | Aalesund (Norway) .. | } | 1438 | 208.6 | 6.25 | Nyiregyháza (Hungary) .. | } |
| | | 0.5 | Christiansand (Norway) .. | | | | 1.25 | Pecs (Hungary) .. | |
| | | 0.1 | Tromsø (Norway) .. | | | | 1 | Spanish Common Wave .. | |
| | | 1 | Turin II (Italy) .. | | | | 0.2 | Radio-Normandie (France) .. | |
| 1366 | 219.6 | 1.7 | Cracow or Torun (Poland) | } | 1465 | 204.8 | 1.5 | Dresden (Germany) (rlys. Leipzig) .. | } |
| | | 0.5 | Swiss Common Wave .. | | | | 1 | Bournemouth (Gt. Britain) .. | |
| 1375 | 218.2 | 0.5 | Warsaw II (Poland) | } | 1474 | 203.5 | 0.3 | Plymouth (Gt. Britain) .. | } |
| 1384 | 216.8 | 2 | Radio-Lyons (France) .. | | | | 0.2 | Bordeaux-Sud-Ouest (France) .. | |
| 1393 | 215.4 | 5 | Swedish Common Wave .. | } | 1492 | 201.1 | 0.2 | Nîmes (France) .. | } |
| 1402 | 214 | 0.4 | Portuguese Common Wave .. | | | | 0.2 | Agen (France) .. | |
| 1411 | 212.6 | 2 | | | 1500 | 200 | | | |

DEVIATIONS

The following are the actual deviations from the official frequencies as measured at the Tatsfield Checking Station during the past week.

| | | | | | | | |
|-----|------|---|--------------------------|--------|-------|---|-----------------------------|
| 160 | 1875 | { | Huizen (Holland) | 230 | 1304 | — | Luxembourg .. |
| | | | Kootwijk (Holland) | 583.2 | 514.4 | — | Riga (Latvia) .. |
| 167 | 1796 | — | Lahti (Finland) .. | 1121.6 | 267.4 | — | Nyiregyháza (Hungary) .. |
| 212 | 1415 | — | Warsaw (Poland) .. | 1339 | 224 | — | Lodz (Poland) .. |
| 216 | 1389 | — | Eiffel Tower (France) .. | 1462 | 205.2 | — | Radio-Normandie (France) .. |

For list of Short-Wave Stations see page 172.

NEW FREQUENCIES NOT ANNOUNCED

At the time of going to press, the new (Lucerne Plan) frequencies of the following stations have not been definitely announced. In many cases they are working on a "common wave," either National or International.

| | | | |
|---------------------------|----------------------|-------------------------------|-----------------------|
| Almeria (Spain) | Gävle (Sweden) | Kristinehamn (Sweden) | Pori (Finland) |
| Basle (Switzerland) | Halmstad (Sweden) | Liège Experimental (Belgium) | Säffe (Sweden) |
| Berne (Switzerland) | Hälsingborg (Sweden) | Lisbon (Portugal) | Salamanca (Spain) |
| Bilbao (Spain) | Hudiksväl (Sweden) | Madrid (Radio España) (Spain) | St. Quentin (France) |
| Borås (Sweden) | Istanbul (Turkey) | Malmberget (Sweden) | Tartu (Estonia) |
| Cadiz (Spain) | Jönköping (Sweden) | Malmö (Sweden) | Trolhättan (Sweden) |
| Cartagena (Spain) | Kalmar (Sweden) | Norrköping (Sweden) | Turku (Finland) |
| Chatelineau (Belgium) | Karlskrona (Sweden) | Örebro (Sweden) | Uddevalla (Sweden) |
| Coruña (Santiago) (Spain) | Karlstad (Sweden) | Ornskoldsvik (Sweden) | Umea (Sweden) |
| Eskilstuna (Sweden) | Kasbah (Tunis) | Oviedo (Spain) | Uppsala (Sweden) |
| Galicja (Spain) | Kiruna (Sweden) | Pietarsaari (Finland) | Vienna (Experimental) |

Which Station Was That?

Replies to Queries

FILCOURTIS (N.W.11): (1) WNAC, Boston; (2) WBZ, Springfield; (3) LRS, Radio-Excelsior (Buenos Aires); (4) WJZ, Bound Brook; (5) WBT, Charlotte (N.C.). PENTODE (Sunderland): WOF, Lawrenceville (N.J.), on 30.77 m., working with GCW, Rugby. NIGHT BE (W. 14): WTAM, Cleveland (Ohio), on 280.2 m. HELIX (Thornton Heath): Moscow RCZ (U.S.S.R.), working on approximately the same wavelength as Huizen. TINK (Solihull): YVIB, Caracas (Venezuela) on 49.08 m.; U.S.A. station heard above possibly W3XAL, short-wave relay of WJZ, Bound Brook, on 49.18 m. OUTCAST (Heaton): Cannot trace GGD; apparently you heard GGB, South Bishop Lighthouse, 1030.93 m., or perhaps GGG, Round Island Lighthouse, on 980.39 m. YORKY (Kent): W8XAL, short-wave relay of WLW, Cincinnati (Ohio) on 49.5 m. DAB (Streatham): (1) OK2EA, Czechoslovak amateur transmitter; write: C.A.V., Box 69, Prague, Czechoslovakia; (2) call-sign incomplete; regret, cannot trace; (3) WIGBE, experimental amateur, Newton (Mass.). TWIDLER (Manor Park): Apparently GDW, Rugby, testing on new channel. GIDDY KIPPER (Salisbury): CJA, Drummondville (Que.), on 32.15 m. GORMLESS (Langollen): Regret, but details are too vague to trace; CFL is the call-sign of a station at Tabouret (Province of Quebec), 185.2 m. SHORT WAYER (Heaton): W8XAL, Cincinnati (Ohio), on 49.5 m.; short-wave relay of WLW. CITEK (Holbeach): This was CJA, Drummondville (Que.), on 28.52 m.; also working on 32.15 m. NOS (Ipswich): You do not give a date; details would tally with Hilversum received through Kootwijk, working on 1,875 m. INNOCENCE (Hove): (6) OER2, Vienna, 49.41 m.; (7) LCL, Jeløy (Norway), relaying the Oslo programme on 42.92 m. DOCS TOAST (Longton): (1) WABC, New York; (2) details too vague to trace definitely, but possibly WIOD, Miami Beach (Fla.); (3) WTAM, Cleveland (Ohio), and (4) WEA, New York; the two latter stations belong to the NBC Red Network and would be taking the same programme; (5) LRS, Radio-Excelsior (Buenos Aires). ASTROPHYSICS (Eastbourne): Would be Kharkov (U.S.S.R.) at that time. TOMTOM (Perth): (1) WCSH, Portland (Maine), NBC station on 319 m.; (2) WCAU; (3) apparently WFBL, Syracuse (N.Y.), 220.6 m., but cannot confirm. GAMMA (Harrigate): VQ7LO, Nairobi (Kenya Colony), 49.47 m. SIR GORGON ZOLA (Edinburgh): No, this was WIOD, Miami Beach, NBC station on 230.8 m. T. S. F. (Lancs): (1) yes, the Hungarian relays, Magyarovar, etc., relaying Budapest on 208.6 m.; (2) cannot understand wavelength, as on January 7 Oslo was on 1,083 m., not 1,150 m.; are you sure this was not Kalundborg (1,153 m.); (3) Scheveningen Haven (Holland), on 1,070 m.; commercial transmissions only. P. C. M. (Southgate): (1) regret, cannot trace; (2) apparently LRS, Radio-Excelsior (Buenos Aires) on 361 m. ALYS (Leigh): (1) cannot understand wavelength, as this was Luxembourg on 1,304 m., giving gramophone records; (2) Berlin; although not advertised in programme, apparently relaying dance music from the Concert House at Breslau; (3) Hamburg. PUZZLED (Dalston): Could only be Algiers (N. Africa). TIM (Trowbridge): CJA, Drummondville (Que.), 32.15 m. AMUSED: Apparently WSB, Atlanta (Ga.), on 405.2 m., the only likely station to be received near wavelength given. TIKONKO (Dewsbury): CJA, Drum-

mondville (Que.), 32.15 m. MICE (St. Albans): (1) WJZ, Bound Brook; (2) WTIC, Hartford. FROACH EILEAN (Buckie): Surely this was Riga (Latvia), which is now working on 514.6 m. (news bulletin, etc.). HUNTER (Crewe): Sundsvall (Sweden), relaying Stockholm, on 499.2 m.; church service from Uppsala at 6.30 p.m., followed by orchestral concert. D. VEALE (Ilkley): P.T.T., Paris; piece heard was: "Ruban Sonore," Symphonic Poem by Marcel Delannoy. HUWOZIT (Prittlewell): WBZ, Springfield (Mass.), on 302.8 m.; the letter "Z" is pronounced "Zee." WIRELESS FIEND (Clapham): Kaunas (Lithuania) working on 1,935 m., church service. WAS IT? (Uddingston): Yes, much more likely to have been Copenhagen, which was giving dance music at the time; as your batteries were low this would probably account for the fading. AUSSIE (Cardiff): Call heard was WIXAZ, short-wave relay of WBZ, Springfield; if wavelength approximately correct, possibly heard through WTAM, Cleveland, on 280.2 m.; other station heard on about 270 m. would be WPG, Atlantic City (Ohio), 272.6 m. JAYBEJAY (Edinburgh): Regret cannot trace, as this was not advertised in any programme. LASTIN (W. Bridgford): Barcelona (EAJJ), 377.4 m. AND THEN SOME (Scotland): G6YO, Coventry; cannot trace call-sign G2SD. CHOCK KING (Fenton): Radio-Normandie (Fécamp). PSYCHOLOGY (N.13): WJZ, Bound Brook; interval signal: three notes. TUTTLE (Nuneaton): Hilversum programme (through Kootwijk) on 1,875 m. ALBECIOAN (Guernsey): W2COJ, amateur at Irvington, New Jersey. MICK (Birkenhead): G6DO, amateur transmitter at Oxton, Birkenhead, and G6OM, Heswall, Birkenhead. LET'S ALL LISTEN TO LUXEMBOURG (Sittingbourne): London National. MALAGUENO (Birmingham): Ship-shore telephony. SOMEDAY (Manchester): (1) KAO, Manila (P.I.); (2) WQH, Rocky Point (N.Y.); (3) HSP, Bangkok (Siam); (4) regret, cannot trace call-sign TMA; (5) PCS, Kootwijk (Holland). H. J. COPEMAN (Norwich): This is Luxembourg working on 1,304 m.; see under list of Deviations, "World-Radio" issue of January 26. NONIS (Edinburgh): Are you sure of wavelength? Regret, can offer no solution. P. V. X. (Ruislip): Yes, the Hilversum programme received through Kootwijk, which is working on 1,875 m. (see list of Deviations, "World-Radio," issue of January 26). WABERITH (Belvedere): (41) North Hinder Lighthouse (Holland), on 1,020 m.; (43) probably CFA, Drummondville (Quebec), on 19.64 m. (17,710 kc/s), working with Wellington (N.Z.); (46) Boulogne (France) Lighthouse (S.W. Jetty) on 1,050 m. KINGS (Wimbledon Park): (1) if Spanish and 2 a.m., possibly HJ3AB1, Bogota (Col.), on 48.6 m. (6,170 kc/s); (2) HJ1ABB, Barranquilla (Col.), on 46.5 m. (6,451 kc/s).

The Alternative Postal Service

In addition to the free service of "Which Station Was That?" printed in these columns, replies to queries regarding station identification can be obtained within forty-eight hours of receipt of details, on payment of 6d. per query, in stamps, or P.O., accompanied by stamped addressed envelope (marked in left-hand top corner "Postal Query Service"), and coupon as per conditions for "Free Queries."

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1. Time and date of reception.
2. Approximate frequency in kilocycles per sec. (or wavelength in metres).
3. Nearest known stations, above and below.
4. Call or interval signal, if heard.
5. Language.
6. Type of receiver in use and strength of signals.
7. Details of programme or signal received.
8. Name and address.
9. Nom de Plume. (Proprietary names must not be used.)

"Green Week" in Germany

(From our Acting Berlin Correspondent)

Berlin's "Green Week," which, as the name implies, is mainly an agricultural show, opened on January 27. A radio section, in which the "Volksempfänger" (the "People's Set") is prominently displayed, was arranged under the auspices of the Reichsrundfunkkammer. Many other receiving sets, ranging from one-tuned-circuit receivers to six-valve super-heterodynes, are exhibited, and a television receiver is on view. "Der Deutsche Amateur-Sendedienst" (the German amateur organisation) is also exhibiting a number of receiving sets.

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