

WORLD-RADIO

DOMINION & FOREIGN PROGRAMMES

Vol. XII No. 299

Registered at the G.P.O.
as a Newspaper.

FRIDAY, APRIL 17, 1931

Two Pence

PRINCIPAL CONTENTS

The Progress of Broadcasting

1.—“Broadcast over Britain”

By the CHIEF ENGINEER, B.B.C.

Short-Wave Notes

From the Swiss Alps

By “Yodeller”

Radio Telephony on Eighteen Centimetres

Which Station Was That?

Replies to Queries

WORLD-RADIO

Station Identification Panel

LYONS (Radio Lyon) (France)
(Revised)

Frequency: 1,049 kc/s.

Wavelength: 286 m.

Power (Aerial): 0.8 kW.

Approximate Distance from London:
458 miles.

Opening Signal: The announcer counts
from three hundred to three hundred
and twenty.

Call: “Radio Lyon! Radio Lyon!
Ici Radio Lyon!”

No regular interval signal, but some-
times, “Radio Lyon! Radio Lyon!”

Announcements are made in French
only.

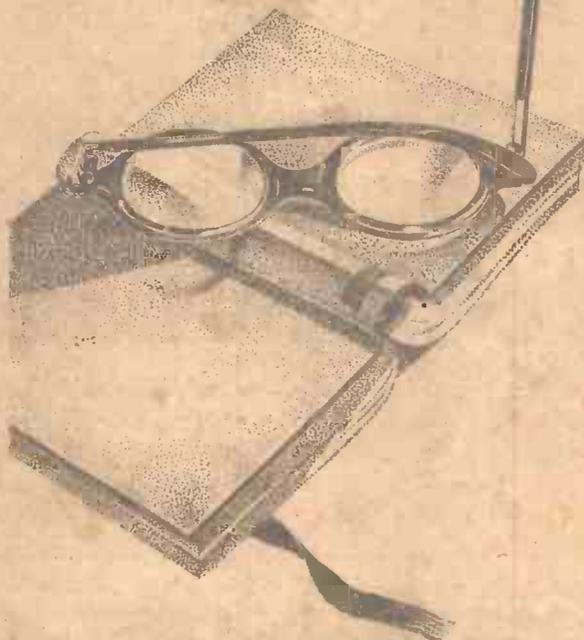
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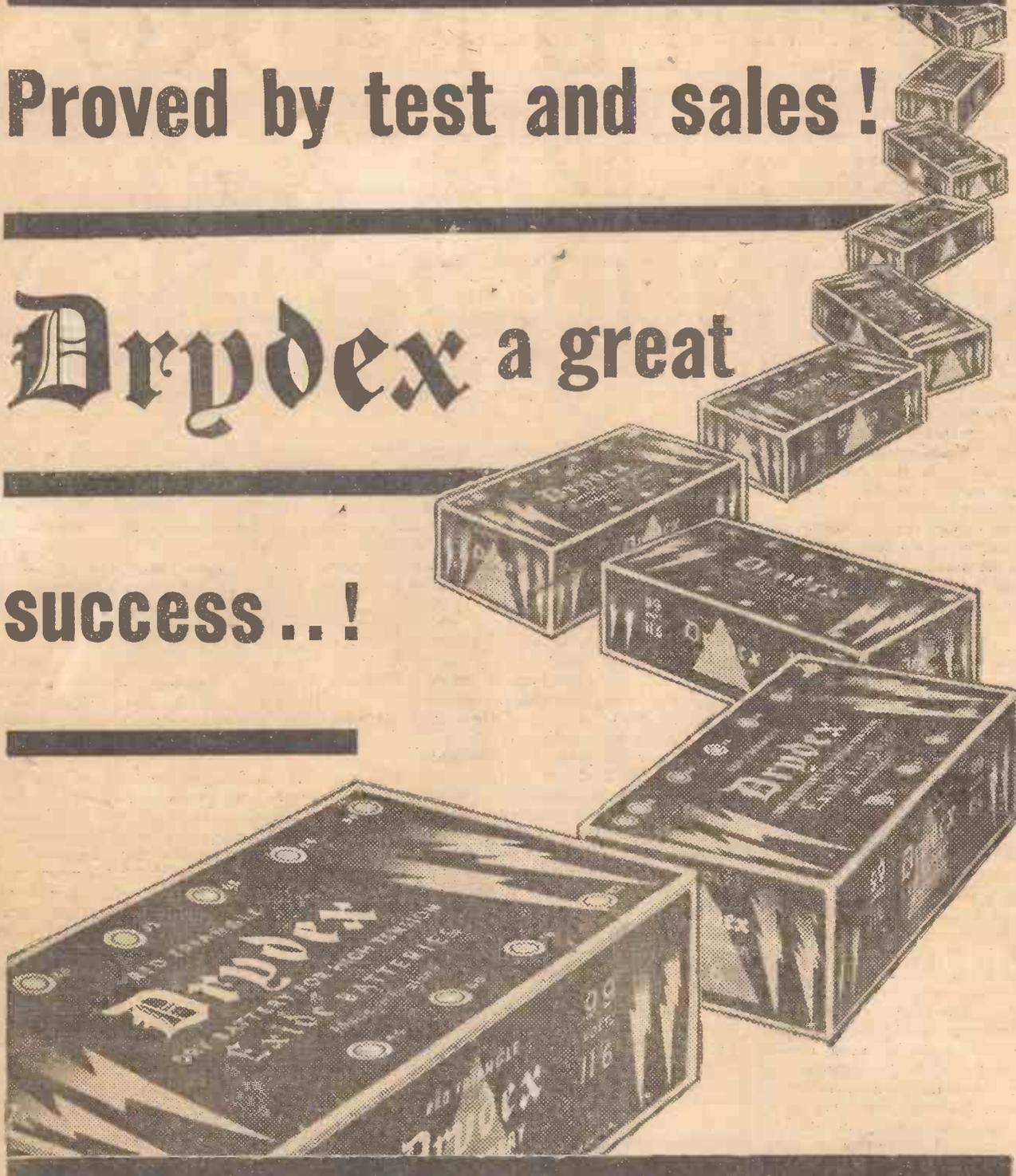
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TWO PENCE

The Progress of Broadcasting

1.—“Broadcast over Britain”*

By the CHIEF ENGINEER, B.B.C.

AS many listeners will know already, the method of distributing programmes in this country is undergoing a complete change, in accordance with a plan whereby the majority of the low-powered stations are being gradually replaced by high-powered stations. For the benefit of those who have not already read one of the many articles on this subject which have appeared in B.B.C. publications and elsewhere, I will begin by explaining the main objects of this scheme. In order to do this, it is necessary to go back a year or two.

Prior to August, 1927, this country was served by a large number of comparatively small transmitters, none of which radiated a power of more than about 2 kW, with the exception of the Daventry transmitter, 5XX, which not only uses much greater power, but transmits on a so-called “long” wave. Now long waves, such as 1,500 metres, are able to travel a much greater distance than the shorter waves used for broadcasting, such as 350 metres. Thus 5XX has been able, to a large extent, to fill in the gaps between the small stations, in addition to serving coastal areas. Incidentally, this is a fact which is used to great advantage in the new scheme, as I shall explain a little later. With these many small stations the service was what might be called patchy, and, in any case, only one programme was available as a general rule; at any rate for reception on simple, inexpensive sets.

Change of Scheme Imperative

Obviously, then, a new scheme was required, which would first of all ensure a more even distribution of the service, and, as far as possible, give a choice of programme in addition. It was not possible to follow the simple course of building more stations, because the number of wavelengths which may be used in this country is strictly limited to ten, by international agreement. This limitation is necessary owing to the fact that there are only about 115 wavelengths available for the whole of Europe. Thus, strict international rationing is absolutely essential in order to avoid complete chaos in the ether. Again, it would not have been possible merely to increase the power of the existing stations, because in general the old stations are situated in the heart of cities. Now, the centre of a large city is a most unsuitable site for a high-powered station, for several obvious reasons. As many listeners must have experienced for themselves, it is difficult to receive a distant station when there is another powerful one only a few miles away. Of course, comparatively elaborate receiving sets can do this, but at present many of the sets actually used cannot, without a lot of fiddling adjustments which most people quite naturally dislike. On the other hand, if it is a question of cutting out one strong station to receive another equally as strong, then the problem is very much simplified, and quite modest apparatus is sufficient.

Thus, after a good deal of careful consideration,

* A talk broadcast through the National transmitter on Monday, April 6th.

and after consulting a committee of independent experts, it was decided to build a number of high-powered stations, but, instead of equipping each station with a single transmitter in the ordinary way, each was to have two transmitters, so that two programmes could be radiated simultaneously. One of these, the national programme, was to be of universal interest and transmitted simultaneously from one of the transmitters at each station, while the other, known as the regional programme, was to be contrasted in character, and was to contain a proportion of local material. Of course, each programme has to have a separate wavelength, and the two wavelengths used by the two transmitters at one station must be fairly widely separated. It is, in fact, due to this necessary spacing between the two wavelengths that the strength of each programme cannot be precisely the same at all distances from the station; on the other hand it can be sufficiently so to make reception easy on simple sets.

There are to be five of these dual stations, situated as follows:—

Daventry, to serve the Midlands.

Brookmans Park, to serve London and the South-Eastern Counties.

Slaithwaite, nr. Huddersfield, to serve the North of England.

Westerglen, nr. Falkirk, to serve the Middle and South of Scotland.

Finally, there will be a station in Somerset, the site of which is not yet definitely chosen, to serve South Wales and the West of England. In addition, it will be necessary to retain, and eventually modernise, certain existing stations such as Belfast. This scheme requires eleven wavelengths, actually, one more than the number available. To get over this difficulty certain transmitters radiating the national programme will be synchronised, that is to say they will work on exactly the same wavelength, special apparatus being installed to maintain great accuracy. It is unfortunate that all synchronised transmitters must, in general, always transmit the same programme, but the greatest possible use of this method of getting over the wavelength shortage will be made.

Regional Twin-Programmes

Owing to their increased power, these new twin transmitter stations will serve regions rather than particular towns, and, in every case, they will be situated in open country instead of being in or near the centre of cities. Thus, by using high power (the new transmitters employ about fifty times as much power as the old ones) we get more even distribution and an infinitely stronger service everywhere, except, of course, in small areas in the immediate neighbourhood of the old local transmitters. The most interesting feature of the new scheme, however, is that two programmes are provided under the most favourable conditions for reception by the vast majority of listeners. Now if all wavelengths allotted to this country were between, say, 400 and 2,000 metres, then it would be a comparatively easy matter to cover every corner of the country

with a strong service. As it is, there are certain remote districts, in most cases of a more or less mountainous nature, which will not be able to receive an alternative programme with reliability. Daventry 5XX possesses the only wavelength long enough to give a reasonably reliable service to these comparatively remote districts. In any case, listeners in these districts will be no worse off as a result of the improvement of the service to the rest of the country, because the single programme service will still be available, and it is hoped that eventually means will be found to improve the service given by 5XX.

One might ask: why cannot broadcasting be carried out entirely on long waves? The answer to this is that there are only nine really long wavelengths to be distributed amongst some twenty-six different countries in Europe. It is obvious, therefore, that there is not even one long wavelength for each country, a state of affairs which causes a great deal of difficulty in countries which do not possess one.

The Plan in the Working

We may now pass on to consider how the new plan works in practice, so far. The first definite move was made in August, 1927, with the opening of 5GB at Daventry, which is now called the Midland Regional Transmitter. Together with 5XX this formed the first station of its kind in Europe. At first an alternative programme service was introduced as an experiment, just to see whether there were unforeseen difficulties in connexion with reception or transmission. No fundamental difficulties having arisen the new station for London was started. This is now well known, of course, as Brookmans Park. It was all along anticipated that, at first, listeners would experience some difficulty of a temporary nature in separating the two programmes with their existing receivers, which at that time did not possess, to any considerable extent, the capability of rejecting unwanted transmissions. As was also anticipated this difficulty did not prove a lasting one. During the first few weeks we received many thousands of requests for information, but ample preparation had been made to deal with these without delay. Altogether over 50,000 letters were sent out in reply to inquiries of various kinds, and, in addition, nearly a quarter of a million printed pamphlets were distributed. These pamphlets had been specially written in non-technical language, and they explained how receivers could be made sufficiently selective to separate the two programmes employing very simple methods. Actually the chief difficulty in London was due to the fact that the shorter of the two wavelengths, that is to say the one on which the national programme is radiated, is affected by the high buildings in London, with the result that the strength of reception is not as good as one would like in certain districts, particularly in the south-west. If it had been possible to use a somewhat longer wavelength this difficulty would not have arisen. With the Regional programme, which is trans-

mitted on a longer wave, the screening effect of the high buildings is not serious.

Another difficulty has arisen in London during the last few months, this time in connexion with the Regional programme, and, although it is really nothing to do with the new scheme, it will not be out of place to say a few words about it now. I am referring, of course, to the interference between Stuttgart and London. It will be fairly obvious that if it has become necessary to build high power stations in this country, it has become equally necessary to do likewise on the Continent, since all countries suffer from the same limitation with regard to wavelengths. It so happens that the new German high power station near Stuttgart occupies the neighbouring wavelength to the London Regional Transmitter. Roughly speaking, both these stations are of the same power, but, for some reason which is not yet fully understood, the strength from the German station is much greater in this country than would be expected. I would like to make it clear, however, that this does not mean that the German station is either more or less efficient than ours. The interference only occurs after dark because this excessive strength is due to what is called the indirect ray, which does not exist during the daylight hours. Every possible effort to remedy this trouble is being made, both by the German engineers and ourselves. The Chief Engineer of the R.R.G. (the German equivalent of the B.B.C.) came over to England recently and spent a week here, taking part in tests which we carried out to obtain as much data as possible which might lead to a cure. Some reduction of the interference has resulted, and in a few weeks time the difficulty will disappear to a very large extent, owing to the fact that "Summer Time" reduces the number of hours during which broadcasting takes place in the dark. However, this is obviously not a permanent cure, and technicians still have the problem to face, not merely of interference between two particular stations, but the much more general one of the effect of high power stations on each other all over Europe. Admittedly, this looks formidable, because almost all countries wish to raise the power of their stations in order to cover the whole of their territory adequately, while no means has yet been found of preventing the indirect ray from reaching other countries. However, equally difficult international problems in connexion with broadcasting have already been solved successfully, and there is no reason why this one should not be dealt with in a similar way.

Let us now consider the progress which has been made with the new stations in other regions. First of all there is the North Regional Station at Slaithwaite, near Huddersfield, which is at present giving regular reception tests out of programme hours. This station is extremely important since it has to serve a densely populated region, which happens to be composed largely of hilly country, not favourable to wireless transmission. As I said a few minutes ago, the longer the wave the better, especially in these circumstances, and this is the reason why the wavelength of 479 metres is being used for the Regional programme in this area. When the second transmitter, which will send out the National programme, is started up, it will use a wavelength of 301 metres, which, because it is considerably shorter, cannot possibly reach so far. This, of course, refers to reception by the direct ray, without fading. It will be remembered, however, that the Daventry long wave transmitter sends out the same programme as all the National transmitters, and fills in, so to speak, the deficiencies of the shorter waves. Nevertheless the National transmitters in each region will give a very much stronger service than Daventry within a radius

of roughly forty miles, giving the opportunity of an alternative programme to a vast number of people whose conditions of reception are unfavourable, particularly those living in congested areas. It is too early as yet to say very much about the results which the North Regional Transmitter is giving, but so far reports have been highly satisfactory.

The next station to be considered is that for Scotland, or, I should say, as much of Scotland as it is possible to serve from this station with the wavelengths at our disposal. It is situated at Westerglen, near Falkirk, and, in general, it will be similar to the London and North Regional stations. Constructional work is well in hand, but it would be unwise to predict an opening date quite so soon, but the work will be pushed on as fast as is consistent with sound construction.

The next station to be tackled will be the one to serve South Wales and the West country. In order to give the best possible service to these areas it has been found by actual tests that the site should be on the south side of the Bristol Channel. I would like to emphasise that this choice of site in no way prejudices the service which will be given to South Wales. On the contrary, one can give a better service to South Wales by having the station on this side of the channel than by putting it in Wales itself. Work on this station will begin very shortly, and, when it is complete, the whole of the new scheme will be in operation.

Radio and Ramadan

ALGERIA has felt the appeal of wireless which closely follows the cinema and the gramophone in popularity among the natives. There are wireless sets under the desert tents in the Sahara and in the spacious courts of Aghas and Caids in the oases. Even the nomads of the South have heard the dance music of Europe and America.

Before the days of broadcasting, news in the South came from out-of-date newspapers or letters slowly carried by the immemorial camel, but now the Algiers broadcast is heard all over French North Africa, and is most useful in supplying isolated farms and distant sheep-breeders with agricultural and commercial information, the latest prices of cattle and sheep, weather reports, and useful advice both in French and Arabic.

Then there is its recreative side with concerts and music, both European and native.

During the long fast of Ramadan—the Moslem equivalent of Lent—wireless after sunset is particularly appreciated by the native population of Algeria.

To the ordinary resident among Eastern people, the chief outward sign of Ramadan is an increase in native activity after sunset; in fact, a tendency to turn night into day.

The annual fast of the Moslem lasts during the whole of the lunar month of Ramadan, and is kept strictly. At Algiers, the French authorities fire a gun to announce the beginning of Ramadan, and each evening at sunset they fire a gun to mark the end of the daily fast, for from daybreak to sunset no food or drink should enter the lips of the true believer.

It can well be imagined how the hungry people welcome the sound of the evening gun. There is great animation and joy openly expressed in the streets; the lights are lit in the minarets of the mosques while the muezzin calls the faithful to prayer, and after saying a short verse from the Koran, as a hasty grace, all begin to eat. Hunger forbids formality. The native restaurants are scenes of animated joy, with feasting going on far into the night after the long fast of the day.

(Continued on page 613)

Letters to the Editor

The Mosque of St. Sophia.

To the Editor of WORLD-RADIO

SIR,—The interesting letter, accompanying the photograph of the interior of St. Sophia, of "Regular Reader," in your issue of April 3, contains an error, which is common also to guide-books, in supposing that the great 24-foot green discs plainly visible in the photo contain texts. They carry the names of prophets, caliphs, and martyrs of Islam, of whom the memory of my visits to this magnificent mosque recalls Muhammad and Asa (easily readable on the two discs seen full face in the photo), 'Ali, 'Uthman, 'Umar, Hassan, Husayn, and, I think, either Isa (Jesus) or Abu Bekr—eight names in all.

One would wonder whether for studio reasons the carpet strips will have been removed to reveal the fine marble floor. The interior will look straighter without them, for they were set askew to give the idea, with the aid of the position of the *mimbar* (pulpit) and other interior structures, of facing more to the right (to Mecca) than the structure really does.

Yours faithfully,

"AYA SOFIA."

Southport, Lancs, April 7, 1931.

Reception on April 6, 1931.

To the Editor of WORLD-RADIO

SIR,—It would be interesting to know the experiences of your readers as to the DX qualities of the morning of April 6.

I have not known a night when so many American medium-wave stations have come in so well. I logged quite fifty of them, and at 3 a.m. there was hardly a point on the dials that was not occupied with one or more American stations.

Among the stations I logged between 12 midnight and 4 a.m. here are a few:—

WTIC, Hartford, Conn.; WHAM, Rochester, N.Y.; WOWO, Fort Wayne, Ind.; WRVA, Richmond, Va.; KDKA, Pittsburg, Pa.; WBT, Charlotte; WLBI, Stevens Point, Wisc.; WJZ, Boundbrook, N.J.; WHK, Cleveland, Ohio; WPG, Atlantic City, N.J.; WIOD, Miami Beach, Florida; WJJD, Mooseheart; KMOX, St. Louis, Mo.; KOA, Denver, Col.; WCSH, Portland, Maine; WRUF, Gransville, Florida; WSB, Atlanta, Ga.; WCAU, Philadelphia, Pa.; WGY, Schenectady, N.Y.; CNRL, London, Ontario.

Strength from all stations was remarkable, though WTIC, WJJD, KMOX, WIOD, and WHK were rather louder than the others. CNRL was frequently very strong. The others remained almost constant in strength, and though static was rather troublesome fading did not appreciably hinder the catching of announcements.

Other remarkable catches I have made recently are CRC, China (medium wave); WHBY, Green Bay, Wis. (100 watt), which was broadcasting an Anglo-American Radio Society concert at the time of my reception; WWRL, Woodside (another 100 watt station); WJAC, Johnstown, Pa., and WGBB, Freeport, New York (both 100 watt stations), have also come in well.

I have made really good gramophone records of the following medium-wave American stations: WTIC, WPG, KOA, WEA, WKBW, WTAM, WOR, WJZ, WGY, XED and many others, having in all over fifty discs of medium-wave American stations.

Yours faithfully,

LESLIE W. ORTON.

Anglo-American Radio Society, Uxbridge.

PS.—Weather on the 6th was as follows: No wind; clear sky up to 3 a.m., when rain fell; moderate temperature. Shortly after rain had commenced to fall signal strength decreased slightly.

Via Ether

The Berlin Philharmonic Orchestra

IT is not often that the microphone affords an opportunity to hear a world-famous orchestra twice in one week. But such will be the case in the coming week. The Berlin Philharmonic Orchestra, conducted by Herr Furtwängler, is giving two concerts—viz., at the Berlin and Prague Philharmonic Halls at 8 p.m. on SUNDAY and WEDNESDAY respectively. The former is to be relayed by Berlin and Königs Wusterhausen, the latter by Prague and most Czechoslovak stations. I have not yet seen the programme of the Prague Concert, but that of the Berlin-relay includes Schubert's Symphony in C Major, Strauss's *Till Eulenspiegel's Merry Pranks*, and the *Tannhäuser* overture. The whole week's orchestral broadcasts are all very interesting—indeed, it is some time since I have observed such a varied and well-chosen list. On MONDAY one's choice of stations will be particularly difficult. At 7:35 p.m. there is Frankfurt-Mühlacker's usual Monday symphony concert, on this occasion devoted to Beethoven, when Szigeti, the violinist so well known to listeners, will play the Concerto in D Major. At 8.30 Vienna is to transmit Mahler's Third Symphony, a further instalment in a cycle of Mahler's symphonies which that station is transmitting. At 9 p.m. Milan-Turin are broadcasting the usual Monday "Radio-Marelli" concert, and the evening's transmissions will conclude at 10.25 with a symphony concert from Copenhagen.

Idomeno—New Version

READERS may recollect that when, a few weeks ago, one of the Continental stations was relaying Mozart's *Idomeno*, I mentioned that Richard Strauss was rewriting this opera, and that the new version was shortly to be presented. I see that the first performance is to take place at the Vienna State Opera House at 7.30 p.m. on FRIDAY next—I presume that Herr Richard Strauss will conduct, though I am not definite about this—and Ravag is relaying this performance. It is occasions such as these which make us feel thankful for the blessings of broadcasting. To return to the orchestral transmissions. TUESDAY evening is largely devoted to chamber music. Thus, at 8 p.m., Copenhagen is transmitting a programme of Danish chamber music, while the Vienna broadcast at 9.55 p.m. is a Haydn programme. At 9.30 p.m. on WEDNESDAY, on the conclusion of the Prague transmission, it might be interesting to tune in to Mühlacker-Frankfurt for the broadcast of compositions by a present-day composer, Igor Markevitch. Two important orchestral broadcasts are to take place on THURSDAY; at 8.55 p.m., Hilversum will relay the Concertgebouw Orchestra's concert, conducted by Mengelberg; at 9.5 p.m., Signor Riccardo Zandonai, the famous Italian composer, is conducting a concert of his compositions at the Rome studio, which will be broadcast from that station.

Daylight Saving Time

ON SUNDAY, April 19, British Summer Time comes into operation, and the Saturday night duty of advancing our timepieces by one hour

before going to bed is laid upon us. So far as this country is concerned, the matter is a simple one, but in the case of a journal like *World-Radio*, dealing, as it does, primarily with foreign broadcasting news and programmes, it is less simple, because, so far, there is no universal date arranged among those countries which adopt daylight-saving for the change-over. The European countries which put forward their clocks are France, Belgium, Holland, and Spain. Countries within the Middle and Eastern European zones make no change. Unfortunately for those whose duty it is to prepare programmes and lists of stations, the countries which adopt the change do not all do so at the same time. Thus, last year Spain made no change, but this year she is doing so, in conformity with France and Belgium, on the same day as ourselves. Holland is usually several weeks behind in this respect, and on the present occasion is to make the change on May 15. Meanwhile, therefore, its time, instead of being twenty minutes ahead of us, as it has been during the winter and will be again after May 15, becomes forty minutes behind us. The case of the United States is, I gather, rather more complicated ("if possible," I hear some say), for it seems that while stations in New York City, Brooklyn, Rochester, and Long Island are to adopt Eastern Daylight Saving Time one week later than ourselves—i.e., on April 26—it is not at all certain, at the time of writing these lines, when the rest of the Eastern Standard Time zone will come into line.

Trondheim

When I was last in Norway I gathered that there was a strong local feeling against the then recent alteration of the name of the northern city of Trondhjem to Nidaros. It appears that shortly after this an agitation for the repeal of the Nomenclature Act, which brought about the change, was started, and as a result it was decided to drop the name Nidaros, not, however, to reinstate Trondhjem—for this was associated too closely with Danish rule—but to alter it to Trondheim, a much more representative Norwegian name, which stands for "the home of the Tronders." This change was authorised a month or two ago, but before it could be adopted ratification by the Lagting was necessary. It appears that this ratification has now been given and, therefore, Nidaros, after a short and not altogether glorious existence, has ceased to describe the historic town of Trondheim, the crowning place of the old Norwegian kings and the city of Norway's greatest cathedral, as well, of course, as the site of a broadcasting station.

Ideal Homes with Receivers

Being one of those forever in search of the ideal, and believing that ideals should have the same place of origin as charity, I duly took up a position in one or two of the several queues eagerly awaiting admission to the model houses at Olympia. I observed with interest that, of the comparatively few such homes which I visited, the one whose furnishing scheme was sponsored by a body of women appeared to be the only one in which a wireless

receiving set had been installed. But receivers were by no means absent from the Ideal Home Exhibition, and I saw some very attractively displayed stands. During my perambulations I was suddenly reminded of an article which appeared in this journal in the course of the last National Radio Exhibition, in which the writer complained that no "modern" furniture artist seemed to have become interested in the design of the wireless cabinet. I wonder whether she has been to Olympia during the last fortnight and noticed that the omission has been remedied. I saw two cabinets worthy of inclusion among the best work of modern furniture designers. In fact, the *décor* of the present exhibition is modernist in the best sense of the word. The wall decoration at either end of the large hall is in the form of a vast canvas depicting tall block-buildings of clean-cut modern architecture. The colour scheme of cream and blue-green, with a slight touch of orange, gives a light, airy atmosphere, and there is, in general, a sense of space not usually associated with exhibitions. The stands on the ground floor are grouped to a pattern around a wide aisle, the centre-piece of which is an exquisite glass column. And—for the first time I think—all these stands have flat canopies of white, which makes for a pleasing symmetry without in the least restricting individual scope in design. What struck me as a most successful innovation was the shrouding of the balcony behind a cleverly contrived veil of coloured net which extends to the roof, thus obscuring from view of the main hall the less attractive backs of the upstairs stands.

Crystal v. Valve Sets

It is always interesting to compare statistics, and, while I believe there are no figures available showing the proportion of crystal to valve receivers in use in this country, I feel sure that it is greater here than is the case in Germany. At the beginning of January last the German Post Office sent out a questionnaire with the object of eliciting from each listener the kind of receiving set he employed. The result has just been made known, and since replies were received from seventy-five per cent. of the licence-holders, the figures (appended) may be considered fairly comprehensive:—

	Crystal Sets	Valve Sets
(a) Germany, exclusive of Bavaria and Württemberg	15%	85%
(b) Württemberg	19%	81%
(c) Bavaria	22%	78%

Of the total number of valve sets, fifty-three per cent. were fed from batteries, thirty-five per cent. from the mains with alternating current, and twelve per cent. mains with direct current. While one knew that the crystal detector set occupied a statistical position far inferior to the valve receiver—at any rate, in Germany—it is a little surprising to find the relative figure as low as it is. Denmark, I am told, has a yet smaller percentage: only ten per cent. of the licensed listeners using crystal sets.

Dominion and Foreign Broadcasting Intelligence

AUSTRALIA

(From our Australian Correspondent)
Educational Listening Groups

A committee has been formed comprising representatives of the New South Wales Education Department, the University of Sydney, Australian Broadcasting Company, Country Women's Association, Australian Workers' Union, Australian Railways Union, and the Workers Educational Association, to prepare a scheme of broadcasting lectures and to organise listening groups in country centres where the W.E.A.'s tutorial classes cannot be established. The Education Department is willing to give the use of schoolrooms where people may assemble to listen to the lectures. The main difficulty is the provision of receiving sets. The Department has never considered itself under an obligation to provide sets and it is rare for small local groups to be both willing and able to raise the funds required.

[We have received from 3AR Melbourne a syllabus of transmissions to schools, instituted at the beginning of last month.]

CANADA

Amendments to Copyright Act
(From our Montreal Correspondent)

Broadcasting authorities are interested in the regulative features of the new amendments to the Canadian Copyright Act which are to be contested by the Performing Rights Association, an international organisation with widespread ramifications. Notice has been received that a delegation is coming out from London to seek a hearing before a Parliamentary Committee. It is claimed that this Association, which acquires from authors the exclusive right to sing or play or otherwise produce their compositions, controls over 3,000,000 works. The claim is made that community organisations or bands cannot play much of the modern music, nor can it be broadcast, without the consent of and compensation to the Association. Under the amendments to the Act, this Association is subjected to stringent departmental regulation, and it is taking strong objection to this provision.

AUSTRIA

(From our Vienna Correspondent)
Physical Jerks

The gymnastic lesson on Sunday mornings is to be reduced to only fifteen minutes, beginning at 9.45 a.m., but Ravag is being implored by many enthusiastic subscribers and their families to make the lesson daily, instead of weekly, and of not less than half-an-hour's duration. Physical education schools, which abound in Vienna, are in vigorous opposition.

Two Striking Programme Features

At 7.30 p.m. on Friday, April 24, we are to have a relay from the State Opera of Mozart's *Idomeneo*, in an entirely new arrangement by Dr. Richard Strauss and Herr Lothar Wallenstein. At 8.30 p.m. on Thursday, April 23, *Tristan und Isolde* will be given in the studio as a spoken drama, the text being, of course, as well as the music, by Richard Wagner, and of remarkable beauty.

DENMARK

(From our Copenhagen Correspondent)
Interval Signal

From time to time listeners have sent in requests that an interval signal might be employed at the Danish stations. In the majority of programmes there is no occasion for such a signal, because the individual items follow each other

immediately, and any unforeseen intervals are filled by gramophone records. However, in certain cases, it would be impossible to use gramophone records—for example, in the intervals between the different scenes and acts in broadcast plays—and in such cases it is therefore resolved to utilise an interval signal, in the form of a *motif* from a Danish folk-song. Arrangements are being made whereby the signal will be put into operation in the near future.

Danish Law against Interference

The Danish Parliament has just passed an Act the purport of which is to stop disturbances from electrical apparatus of all kind, as well as howling. Breakers of this law are liable to a fine, which will accrue to the Danish Broadcasting organisation.

DUTCH EAST INDIES

Daily Broadcast Programme

(From our Correspondent at The Hague)

A number of inquiries having been made from various sources as to the possibility of the institution of a Government broadcast with a regular daily programme, the Dutch Minister for the Colonies has issued a statement that the Government of the Dutch East Indies and the People's Council (consisting of Europeans and Indians) are both of opinion that such a broadcast is better in private hands than in those of the Government. Licences have been granted for the erection of stations, which, it is anticipated, will shortly be working.

FRANCE

(From our Paris Correspondent)
Radio Comedy

On Saturday the 18th the Eiffel Tower will broadcast *Tilda la Fée*, the comedy by Gaston Revel, which gained the first prize for comedies in the Eiffel Tower competition, during which dramas and comedies were broadcast frequently during a period of several months, and listeners were the judges.

£500,000 for Broadcasting

The Chamber and the Senate have voted a credit for 1931 of twenty million francs for the State broadcasting system, of which five million will be utilised for buildings and fifteen million for material and equipment. This is the first part of a programme which envisages the expenditure of sixty-five million francs for the same purpose.

Public Listening

It is announced that a public hall will shortly be opened in which a listener will be enabled to hear any of the principal European wireless concerts on payment of a small admission fee. This hall will be situated on one of the main boulevards.

GERMANY

Gewandhaus Orchestra's Disbandment?
(From our Berlin Correspondent)

It is indeed as a concession to public opinion that the Leipzig Rundfunk has had to consider the matter very carefully, before deciding to finance one of the most famous orchestras of Germany now threatened with disintegration. This is the Gewandhaus Orchestra, whose concerts, under Arthur Nikisch, were among the musical events of the year, and are still world famous. The annual subsidy required is five thousand pounds. The Leipzig broadcasting company is by no means averse from granting this sum provided that the Gewandhaus, a hall of unequalled acoustic properties, is lent for the transmission of other programmes.

To this the worshipful company to which the building belongs cannot agree. Public opinion in Leipzig and other wireless circles is divided between the arguments in favour of listeners financing musical enterprises of world-wide reputation and those which refuse to countenance money drawn from the public being handed over to any particular enterprise.

Cologne Transmitter to be Closed

On completion of Langenberg's new 75 kW. high-power transmitter the present Cologne transmitter will be closed down and transferred to Trier (Trèves). The direct ray of the new Langenberg transmitter having a range far beyond Cologne, it is not anticipated that reception conditions in that district will in any way deteriorate. On the other hand, the new Trier transmitter will be advantageous to the southern part of the Rhine Province, and the district of Trier, which hitherto has come under the jurisdiction of the Südwestdeutsche Rundfunk A.-G., may then be incorporated with the Westdeutsche Rundfunk A.-G. With regard to the closing down of the two small relay stations Aachen and Münster, nothing definite can yet be stated. It is quite possible that when the new Langenberg high-power station is completed reception conditions in the Aachen and North Westphalia districts will become sufficiently good to make the West German common-wave unnecessary. The construction of Langenberg's new transmitter is being proceeded with at great speed. It is hoped that it will begin working on December 15 next, the fifth anniversary of the opening of the Langenberg transmitter.

"Pirates"

(From our Munich Correspondent)

In the period October to December, 1930, 258 persons were convicted in Germany for using receiving sets without licences. Eight of these persons were punished for connivance only. In the same period of 1929 only 185 persons were found guilty of not having obtained wireless licences. The total number of wireless "pirates" found guilty during 1930 amounted to 944 in Germany.

HUNGARY

New Stations

(From a Correspondent)

In addition to the new transmitter to be erected by the Hungarian Broadcasting Company on Csepel Island, in the Danube, at Lakihegy, where the present station is, a 5kW station is to be put up at Nyiregy-haza, on the Romanian frontier, and stations of $\frac{1}{2}$ to 1 kW. power at Micolcz, Magyaróvár, and Pecs. While the company, in which, of course, the State is a large holder, and which is under close State control, will erect the high-power station, of 150 kW, the State will erect the sub-stations at public cost.

U.S.A.

(From our Chicago Correspondent)

Distribution of Stations

The Federal Radio Commission issued an order the latter part of February which is designed to bring about a mathematical distribution of broadcasting facilities. It strikes hard at the broadcasting centres of the country, because it means that one half of the States stand to lose stations, power, and hours of operation in varying degrees, while the other half proportionately will profit. In time, if this mathematical equalisation is effected, broadcasting conditions in the country will apparently be static—or equal and unchangeable—a condition which Congress has tried to avert.

From the Swiss Alps

A Review of the March European Programmes
By "YODELLER"

MARCH in the Alps has been the perfect month, and it is a great relief to be able to say this after having grouched so much about other seasons. With the exception of a few bad days at the beginning, we have had nothing but cloudless blue sky and scalding hot sunshine.

Already gangs of workmen are toiling away on the roadways, digging out a good solid yard of ice, which has formed during the winter, and which can only be removed with pickaxes. A few days ago, I saw the first motor lorry arrive from the valley. This is always an event, and comes as an intimation that winter really is at an end. Children were running alongside the "camion," cheering and shouting as the driver, his face wreathed in smiles, took his huge vehicle up the steep mountain roadway. It seemed queer to hear the "ronflement" of his motors, after hearing nothing but sleigh bells all the winter.

The evenings are lengthening, but in the 5,000 feet altitudes are still very cold, an inducement to stay indoors with one's wireless set. Programmes have been excellent, and seldom a day has passed without my hearing something worthy of note.

Sunday, March 1.—Tuned in my local station, Lausanne, for a relay from Geneva, of a fine concert by the famous Suisse Romande Orchestra, under the baton of Ernst Ansermet. In the evening heard a concert from Rome, the principal item being Beethoven's Fourth Concerto for Pianoforte and Orchestra.

Tuesday, March 3.—First a relay from the Royal Hungarian Opera House, Budapest, of Wagner's *Flying Dutchman*; then, by way of a radical change, switched over to Rome for Rossini's *Barber of Seville*.

Thursday, March 5.—For once the London Regional transmitter was coming through without interference from neighbouring stations, and I listened with some enjoyment to the gramophone record recital entitled, "Some Famous Voices." This ended, was just in time to hear Schubert's Symphony No. 7 in C Major, played by the Vienna Philharmonic Orchestra from Vienna.

Friday, March 6.—Tried Prague for the broadcast by Jack Hylton and his Orchestra, but found reception so bad was forced to change down to Moravská-Ostrava. Here things were much better. The Czechoslovak crowd seemed to appreciate the English dance band most thoroughly, and the applause at the end of each item was tremendous.

Monday, March 9.—Much enjoyed the delightful violin recital by Frika Morini, relayed from Frankfurt by Königs Wusterhausen. Bach's "Ariosa," and Couperin's "La Precieuse" were particularly worthy of note, whilst Morini's interpretation of the famous "Londonderry Air" as an encore simply brought the house down.

Tuesday, March 10.—Wagner's *Lohengrin* coming from the Royal Opera House, Budapest, proved irresistible, and I spent the entire evening listening to as beautiful a performance as it has ever been my good fortune to hear.

Saturday, March 14.—The relay of the Prince of Wales' Speech from Buenos Aires via Daventry came through perfectly out here, and was one of the best long-distance broadcasts we have had. A friend of mine, who speaks fluent Spanish, and who was listening with me to the speech, spoke very highly of the Prince's Spanish.

Sunday, March 15.—Tried Langenberg for a German version of *The Mikado*. Save for an occasional mention of "Yum Yum," "Nankipoo" and other characters, I should hardly have

recognised the work. Fresh, and, to me, unknown airs had been introduced, and alterations made throughout the whole thing.

Tuesday, March 17.—Found Budapest putting out a gramophone broadcast of Gounod's *Faust*, and thoroughly enjoyed this "canned" version.

Thursday, March 19.—Heard a fine violin recital by Henri Marteau, from Mühlacker. Amongst other items, I recognised an arrangement of Franz v. Biber's Sonata in C Minor, and Mozart's Adagio in E Major.

Sunday, March 22.—Listened to Act I of Verdi's *La Traviata* from Mühlacker, after which changed up to the long waves in order to hear the Church Service from Daventry. On this occasion the relay was being taken from St. Mary Redcliffe, Bristol, and held a special interest for me in the fact that my parents were married in this church. A church service from a building one knows is always more impressive, or so I find.

Wednesday, March 25.—Again turned to the English National transmitter, this time for the Queen's Hall Concert. But Daventry was coming through so poorly, that I was forced to go elsewhere; and after having tried Warsaw, Königs Wusterhausen and Budapest in turn, I finally settled on the last named. Here I found a full-strength relay coming through, which speaks volumes for the engineers concerned in the complicated network of land lines used. Arthur Bliss's Symphony, *Morning Heroes*, I found most impressive, and should rather like to know what the Continental listeners thought of it.

Friday, March 27.—In daylight, Daventry is good, and the Grand National came through exceedingly well. In the evening, heard Rossini's *Barber of Seville* for the second time this month, on this occasion from Mühlacker.

Saturday, March 28.—Rome advertised an operatic relay, and on tuning to this station I was delighted to hear it putting out a fine version of *Aida* from the San Carlo Theatre.

Sunday, March 29.—In the early morning picked up a broadcast from Budapest of the "Graf Zeppelin's" flight from Germany to that city. Later, at 8 a.m., heard a concert from the deck of a German liner lying in Hamburg harbour. Finally, stumbled on *Lilac Time* from Rome, in the evening.

Monday, March 30.—Found Munich relaying a sacred concert from Regensburg Cathedral. The choir singing was remarkable, and included such items as Anerio's "Christus factus est," Palestrina's "Oratio Jeremiae," and Aichberger's "Adoramus Te."

Tuesday, March 31.—The last evening of the month was spent at Breslau listening to a relay from Witzleben of Bizet's *L'Arlesienne*. A noteworthy broadcast of this charming work.

Summary.—We have been remarkably free from atmospheric disturbances this month, and as a consequence reception has been splendid. In the middle of the month I struck a period of seven days when distant reception was distinctly poor. There seemed no adequate reason for this, and at first I suspected my set. But on comparing notes with nearby friends, I found that they had experienced the same thing. The dates were from March 12 to March 19. It would be interesting to know if this same falling off in distant signal strength was noted in England.

I find that the new Sottens high-power transmitter will work a crystal set very well here, but at night it is by no means easy to separate this very strong signal from the almost equally strong one of Toulouse.

The 200-300 metre wave band has been in very good form of late, and I frequently take relays from stations in this area when I find it impossible to get what I seek higher up on my dials. Helsinki, on 221 metres, is a very strong signal, as are also Nürnberg, Lodz, and Juan-les-Pins.

SHORT-WAVE STATIONS

(See "Short-Wave Notes" regarding transmission times)

M.	Kc/s	Station
70.1	4280	Khabarovsk (U.S.S.R.), 9 a.m. to 12 noon.
62.5	4600	Long Island, W2XV, FRI, 11 p.m. 1.30 a.m.
61	4918	Radio LL (France), 0.5 kW.
58	5172	Prague, TUES, and FRI, 7.30—9.30 p.m.
51.22	5857	Chapultepec (Mexico) XDA, 20 kW. Daily 3—4 p.m.
50	6000	Barcelona Radio Club EAJ25, SAT, 8—9 p.m.
50	6000	Bucharest (Romania), 0.3 kW.
50	6000	Moscow (Russia) Relays Moscow, Tr'des Un.
49.83	6020	Chicago (Ill.) W9XF, 5 kW. Relays WENR, SUN, 5—7 a.m., 1—5.30 p.m., 8.30—11 p.m. and 1—6 a.m. (MON.). Weekdays, 3.15—4.45 p.m., 8.30 p.m.—12 m'nt. and (ex.SAT.) 1.30—6 a.m.
49.67	6040	New York (W2XAL), 0.25 kW. TUES., 12 m'nt.—5 a.m. WED., 12 m'nt.—2 a.m. FRI., 12 m'nt.—4 a.m. SAT., 12 m'nt.—3 a.m.
49.5	6060	Cincinnati W8XAL, Relays WLW.
49.5	6060	Nairobi (Kenya) 7LO.
49.5	6060	Philadelphia (Pa.) W3XAU, 0.5 kW. Relays WCAU. Daily 2—9 p.m. THURS. and FRI., 2 p.m.—6 a.m.
49.4	6072	Vienna, 0.4 kW. TUES., 10 a.m.—12 noon. THURS., 2—3 p.m. SAT., 10 p.m.—12 m'nt.
49.34	6080	Chicago (Ill.) W9XAA, 0.5 kW. Relays WCFB. Daily 2—5 a.m.
49.22	6095	Downmanville (Canada) VE9GW, 0.028 kW. Weekdays, 11.45 a.m.—3 p.m.; and 8 p.m.—3 a.m. SUNDAYS, 5.30 p.m.—4.15 a.m.
49.18	6100	Bound Brook (N.J.) W2XAL, 12 kW. MON., 10—11.45 p.m. TUES., WED., 4—6 a.m. and SAT., 10—11 p.m. Daily, 4—6 a.m.
49.02	6120	Richmond Hill (N.Y.) W2XE, 0.5 kW. Relays WABC. D'y 1 p.m.—5 a.m. next day.
49	6122	Saigon (French-Indo-China). Daily 11.30 a.m.—3 p.m.
48.86	6140	Pittsburgh East (W8XK). Relays KDKA. WED. and SAT., 10 p.m.—5 a.m.
49.8	6147	Manila (Philippine Islands) KZRM. Daily 8 a.m.—3 p.m. (Except MONDAY).
48.7	6160	Winnipeg (Canada) VE9CL, 2 kW. Daily (except SUN.) from 11.30 p.m.—1.30 a.m.
40.62	6170	Tegucigalpa (Honduras) HRB, 2.5 kW. Daily (except SUN.), 12 m'nt.—5 a.m.
48.35	6205	Bogotá (Colombia) HKC, Daily, 3 p.m.
48	6250	Casablanca (N. Africa) CN8MC. Relays Rabat. MON. 8.10 p.m. TUES. 12 noon—1 p.m. and 8.10 p.m.
47	6382	Funchal (Madeira) CT3AG. THURS. and 6.438—Moscow (Russia). [SAT., 10 p.m.—1 a.m.]
46.6	6667	Constantine (Algeria) 8 KR, 0.2 kW. MON. and FRI., 10 p.m.
45	6667	Constantine (Algeria) 8 KR, 0.2 kW. MON. and FRI., 10 p.m.
44.6	6726	Georgetown (British Guiana) VRY, 0.12 kW. SUN. 10.45 p.m.—2.15 a.m. THURS. 12.15 a.m.—2.15 a.m. Occasional evng. transmissions.
43	6976	Madrid (EAR100). TUES. & SAT., 10.30 p.m.
42.9	6991	Lisbon C11AA, 2 kW. FRI., 10 p.m.
41.7	7195	Singapore VSIAB. MON., WED., and FRI., 2.30—4 p.m.
41.6	7211	Tenerife Radio Club EAR58, 0.5 kW.
40.7	7370	Nuevo Laredo (Mexico) X26A. THURS., 4—6 p.m.
39.7	7550	Bogotá (Colombia) HKF.
37.76	7962	Bangkok (Siam) HSP, 20 kW. Irregular.
36.92	8125	Bandoeng (Java) PLW.
34.68	8650	Long Island W2XV, FRI, 11 p.m.—1.30 a.m.
32.5	9230	Paris (FLJ). Time Sig. 8.56 a.m. and p.m.
32.26	9300	Rabat (Radio Maroc), 6 kW. SUN, 7—9 p.m.
31.75	9450	Rio de Janeiro (Brazil) 10.30 p.m.—12.30 a.m.
31.56	9500	Melbourne (Australia), VK3ME, 5 kW. SAT. only 10—11.30 a.m.
31.51	9620	Lynby (Denmark) OXY, 0.5 kW. Relays Copenhagen. Daily 7 p.m. to close down.
31.48	9530	Schenectady N.Y. (W2XAF), 10 kW. (Aer.). Relays WGY. Weekdays 10.30 p.m.—4 a.m. SUN., 9 p.m.—4.15 a.m.
31.4	9554	Manila KATXR. Relays KZRM.
31.38	9560	Zeesen (Germany), 8 kW. Relays various stations, generally 1 p.m.—12.30 a.m.
31.35	9570	Poznań (Poland), 1 kW. TUES., 6.45—9.45 p.m. THURS., 6.30 p.m.—1 a.m.
31.35	9570	Springfield (Mass.) W1XAZ.
31.28	9590	Eindhoven (Holland) PCJ, 25 kW. WED., 5—8 p.m. THURS., 2—6 p.m., and 10 p.m.—2 a.m. (FRI.). FRI., 6—8 p.m. (or earlier) and 2—7 a.m. (SAT. morning). Announcements in six languages.
31.28	9590	Philadelphia (Pa.) W3XAU, 0.5 kW. Daily (except THURS. and FRI.), 9 p.m.—6 a.m.
30.88	9715	Heredia (Costa Rica) NRH, 7.5 watts. Daily 10—11 p.m. and 2—3 a.m.
30.75	9756	Agen. THURS. and FRI., 9—10.15 p.m.
30	10,000	Pelgrade. MON. only, 8—9 p.m.
29.5	10,167	Bangkok (Siam) HSG, 1 kW. MON., 1—4 a.m.
28.98	10,350	Buenos Aires LSX, 20 kW. Weekdays, 12 m'nt.—2 a.m.
28.2	10,365	Bandoeng (Java) PLR.
26.1	11,455	Manila KATXR. Relays KZRM.
25.53	11,751	Chelmsford (G.S.W.), 16.8 kW. (Aer.). Relays 5XX daily (except SAT. and SUN.), 12.30—1.30 p.m., and 7 p.m.—12 m'nt.
25.5	11,763	Chapultepec (Mexico), XDA, 20 kW. Daily, 8—9 p.m.
25.42	11,800	Vienna, 0.24 kW. TUES., 2—4 p.m.; WED., 10 p.m.—12 m'nt. THURS., 10 a.m.—12 noon.
25.4	11,810	Rome (Italy) 7RO, 0 kW. (Aer.).
25.34	11,840	Chicago (Ill.) W9XAA. Relays WCFL.
25.27	11,870	Calcutta (India) VUC, 0.5 kW. Weekdays, 2.45—3.45 a.m., and 1—2 p.m.
25.25	11,880	Pittsburgh East (W8XK). 5 p.m.—3 a.m.
24.5	12,240	Manila KATXR. Weekdays, 10 a.m.—2 p.m.
23.8	12,605	Rabat (Radio Maroc), 6 kW. SUN, 11.30 a.m.
23.35	12,845	Oakland (Calif.) W6XN, 5 kW. Relays KGO
21.5	13,850	Bucharest, 0.3 kW. WED. and SAT., 7.10 p.m.
20.5	14,630	Chapultepec (Mexico) XDA, 20 kW. Daily, 7.30—8 p.m.
19.72	15,210	Pittsburgh East (W8XK). Relays KDKA. WED. and SAT., 12 noon—4 p.m.
19.56	15,340	Schenectady (W2XAD), 20 kW. SUN. 6—9 p.m. Daily (except SAT.), 6—8 p.m.
16.9	17,750	Bangkok HSI, 20 kW. SUN., Noon—2.30. 6—8 p.m. TUES. 1—3 p.m. and 6—8 p.m.

For Long and Medium Wave Stations see page 634.

Foreign Languages

Aids to Listening

GERMAN

DAVID COPPERFIELD

By Charles Dickens

(German Edition published by Insel Verlag, Leipzig)

David Becomes Engaged

ALS ich am nächsten Morgen aufwachte, fasste ich den festen Entschluss, Dora meine Liebe zu erklären und mein Schicksal zu erfahren. Seligkeit oder Hölle war jetzt die Frage. Für mich gab es keine andere Frage in der Welt, und nur Dora konnte sie beantworten. Drei Tage verbrachte ich in grenzenloser Qual, die ich noch dadurch vermehrte, dass ich allem, was zwischen Dora und mir vorgefallen war, die allerentmutigendste Auslegung gab. Endlich ging ich, mit grossen Kosten zu diesem Zweck angetan, zu Miss Mills, eine vorbereitete Erklärung in der Tasche.

Wie viele Male ich die Strasse auf und ab ging und um den Platz herum, bevor ich es über mich bringen konnte, an die Tür zu klopfen, ist jetzt nicht von Wichtigkeit. . . .

Mr. Mills war nicht zu Hause. Ich erwartete es gar nicht. Nach ihm verlangte niemand. Miss Mills war zu Hause. Miss Mills genügte.

Miss Mills freute sich sehr, mich zu sehen, und es tat ihr sehr leid, dass ihr Papa nicht zu Hause war, obgleich wir es alle mit grosser Fassung zu ertragen schienen. Miss Mills führte das Gespräch ein paar Minuten lang weiter, legte dann ihre Feder nieder, stand auf und verliess das Zimmer.

Ich beschäftigte mich schon mit dem Gedanken, die Sache bis morgen aufzuschieben.

"Ich hoffe, Ihr Pferd war nicht müde, als es gestern nacht nach Hause kam," sagte Dora

und sah mich mit ihren schönen Augen an. "Es hat einen weiten Weg gemacht."

Ich fing an zu denken, dass ich die Sache heute noch vorbringen wollte. "Es war ein weiter Weg für mein Pferd," sagte ich, "denn es hatte auf der Reise nichts, was es munter erhalten konnte."

"Hat es kein Futter bekommen, das arme Pferd?" fragte Dora.

Ich dachte wieder, ich wollte die Sache lieber bis morgen aufschieben.

"O ja," sagte ich, "es hat ihm an nichts gefehlt. Ich meine nur, es fühlte nicht das unaussprechliche Glück, das ich in Ihrer Nähe genoss."

Dora beugte sich auf ihre Zeichnung herab und sagte nach einer kleinen Pause:

"Zu einer bestimmten Stunde schienen Sie selbst dieses Glück nicht besonders zu fühlen."

Ich erkannte jetzt, dass keine Umkehr mehr möglich war und dass es auf der Stelle geschehen musste.

"Sie schienen dieses Glück nicht im mindesten zu fühlen," sagte Dora, zog die Augenbrauen in die Höhe und schüttelte den Kopf, "als Sie neben Miss Kitt sass."

Kitt liess nämlich das Mädchen im Rosakleide mit den kleinen Augen.

"Und ich wüsste auch gar nicht, warum Sie es tun sollten," sagte Dora, "oder warum Sie es überhaupt ein Glück nennen. Aber natürlich meinen sie es nicht im Ernst. Und gewiss zweifelt niemand daran, dass Sie tun können, was Sie wollen. Jip, komm, böser Jip, komm her."

Ich weiss nicht, wie ich es anfang. Aber in einem Augenblick war es geschehen. Ich kam Jip zuvor. Dora lag in meinen Armen. Ich war voll überströmender Beredsamkeit. Ich war nicht einmal um ein Wort verlegen. Ich sagte ihr, wie sehr ich sie liebte. Ich sagte ihr, ich würde ohne Sie sterben. Ich sagte ihr, ich betete sie an. Jip bellte die ganze Zeit über wie toll.

Als Dora den Kopf sinken liess und weinte und zitterte, da stieg meine Beredsamkeit nur um so mehr. Wenn sie von mir verlangte, ich sollte für sie sterben, so hätte sie es bloss zu sagen und ich wäre bereit. Das Leben ohne Doras Liebe wäre unter keiner Bedingung zu ertragen. Ich könnte es nicht ertragen und wollte es nicht. Ich hätte sie jede Minute bei Tag und bei Nacht geliebt, seitdem ich sie zuerst gesehen. Ich liebte sie in diesem Augenblick bis zur Verzweiflung. Ich würde sie in alle Ewigkeit jeden Augenblick bis zur Verzweiflung lieben. Es hätten Liebende früher geliebt, und Liebende würden wieder lieben; aber kein Liebender hätte jemals geliebt oder würde, könnte, wollte oder sollte jemals so lieben, wie ich Dora liebte. Je verzückter ich wurde, desto mehr bellte Jip. Jeder von uns wurde in seiner Weise mit jeder Minute toller.

Nun, und schliesslich sass Dora und ich leidlich beruhigt nebeneinander auf dem Sofa, und Jip lag auf ihrem Schosse und zwinkerte mich friedlich an. Die Last war von meinem Herzen. Ich war ganz verzückt. Dora und ich waren verlobt.

Ich glaube, wir hatten eine dunkle Ahnung, dass zulezt eine Heirat daraus werden sollte. Es muss wohl so gewesen sein, denn Dora machte es zur Bedingung, dass wir ohne die Einwilligung des Vaters uns nie heiraten wollten. Aber ich glaube nicht, dass wir in unserm jugendlichen Entzücken uns eigentlich ernstlich mit der Zukunft oder Vergangenheit beschäftigten oder an etwas anderes dachten als an die gedankenlose Gegenwart. Wir wollten die Sache vor Mr. Spenslow geheimhalten; aber ich glaube nicht, dass ich einen Augenblick daran dachte, das sei unehrenhaft.

Was für eine müssige, traumhafte, glückliche, törichte Zeit das war!

ITALIAN

Intorno al Trattamento degli Animali in Italia

A.—No, no. Lasciamo stare quest'argomento (*let us leave . . . alone*). Mi è sempre parso che in Italia gli animali non vengano trattati come dovrebbero, purtroppo (*unfortunately*)! Se io fossi in Lei, cercherei di non parlarne, per carità di patria!

B.—Ma tutt'al contrario! Io desidero parlarne, sia perchè son del parere (*opinion*) che si debba avere il coraggio di discutere i propri difetti, sia perchè (sia . . . sia=*both . . . and*) in questi ultimi tempi si è fatto molto per gli animali in Italia.

A.—Davvero? Ma allora sentiamo, sentiamo. Io, invece, credevo che in Italia nessuno alzasse mai la voce in difesa delle povere bestie.

A.—Ma Lei che dice! Proprio in questi giorni si sta combattendo una battaglia in Bologna tra la Società per la protezione degli animali e quelli che vorrebbero la distruzione dei famosi colombi di San Petronio!

A.—Povere bestiole! E perchè vogliono distruggerle? Io avrei detto che erano quasi una necessità in quella piazza di San Petronio, la cui austerità ha bisogno di qualche nota gaia, che vi porti un pò di moto, un pò di brio; come fanno appunto il volare e il tubare dei colombi.

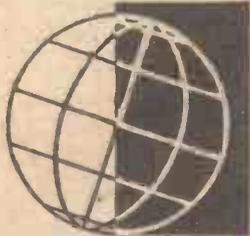
B.—Giustissimo; ma non si può dimenticare il rovescio della medaglia (*the bad side of the thing*). La porta della chiesa di San Petronio vanta delle meravigliose sculture di Jacopo della Quercia. Lei già indovina, certamente, il male che posson fare le care bestiole! Si tratta quindi di scegliere fra la vita dei colombi e quella d'uno dei più grandi capolavori della scultura italiana. Che si deciderà? Non saprei dirlo.

A.—Francamente, io vorrei che la Società per la protezione degli animali, piuttosto che dei colombi di San Petronio, si desse pensiero delle povere vittime del "tiro al piccione" (*pigeon shooting*).

B.—Ha ragione; questo è un gioco crudele di cui gl'Italiani non posson menare alcun vanto, e che davvero non si può giustificare. D'altra parte è molto difficile ottenere l'abolizione di giochi che hanno delle vecchissime tradizioni. In Inghilterra, m'immagino, deve accadere lo stesso colla caccia alla volpe, che non è meno crudele. Ad ogni modo, un progresso, nell'atteggiamento degli Italiani verso gli animali, si nota, ed è grande. Una prova si ha nel progetto di legge (*law*) sulla vivisezione, che si è discusso in questi giorni al Senato. Le critiche e le opposizioni non son mancate, specialmente da parte di eminenti medici e fisiologi. Senatori, che sono anche scienziati di grido (*famous*), han fatto notare che la vivisezione è un metodo utilissimo di ricerca scientifica. "Come si può pensare—ha detto lo stesso Senatore—a limitare un'opera così utile all'umanità? Come si può mettere lo scienziato al livello del carrettiere (*carter*) che maltratta per ignoranza o brutalità il suo cavallo?" È una di quelle questioni difficili a risolversi, perchè ci sono molti pro e molti contra. Ma quel che importa è che lo Stato comincia ad interessarsi di queste cose, che prima erano affidate alla iniziativa di Società private, come quelle per la protezione degli animali. A proposito delle quali, voglio domandarle una cosa: sa Lei chi fondò la prima di queste società in Italia? No? La fondò Garibaldi, quel vero "Cavaliere dell'Umanità"; il quale, un leone sul campo di battaglia quando doveva combattere per un ideale, sapeva poi nutrire, nelle sue ore tranquille, i sentimenti più delicati verso gli animali; come anche verso le piante, e i fiori. Come vede, l'Italia è pur sempre la patria di San Francesco; e c'è da sperare che l'esempio dei pochi e grandi, e l'autorità dello Stato, e l'approfondirsi stesso della coscienza del pubblico in generale, diano presto buoni frutti anche in questo campo.

S. BREGLIA.

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TECHNICAL SECTION

Radio Telephony on Eighteen Centimetres

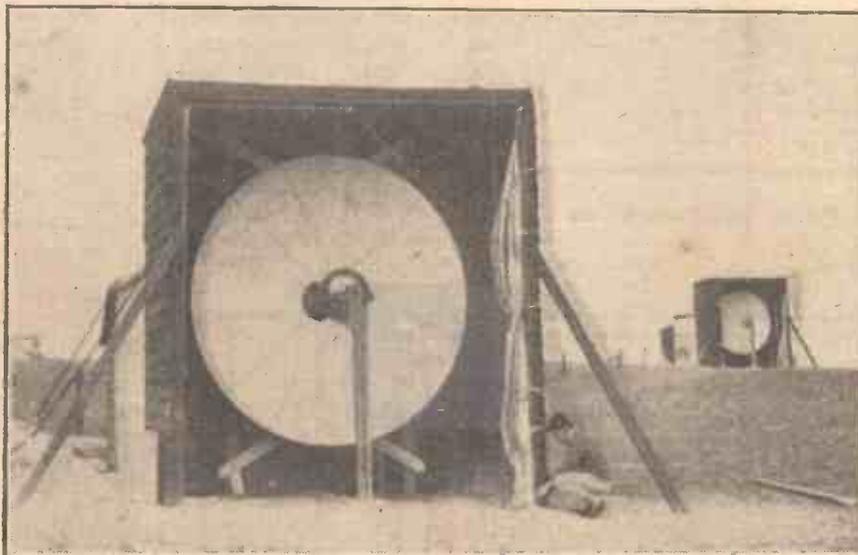
An interesting demonstration of the "Micro-Ray" system

ON the cliffs at St. Margaret's Bay, near Dover, on Tuesday, March 31, 1931, before a distinguished party of British and foreign Government officials and engineers, the International Telephone and Telegraph Laboratories, of Hendon, London, in co-operation with the Laboratories of Le Matériel Téléphonique, Paris, France, gave a successful demonstration of a new ultra-short wave radio telephone and telegraph equipment and test circuit between Dover and Calais. This equipment was developed largely by French engineers in the Paris Laboratories. The demonstration at Dover was conducted by engineers of the International Telephone and Telegraph Laboratories, and at Calais by engineers of Le Matériel Téléphonique. In this demonstration, wavelengths as low as 18 centimetres (designated "micro-rays") were used for the first time to provide a high-quality two-way radio telephone circuit.

Though a certain number of experimenters have already succeeded in generating and utilising oscillations of such wavelengths, nothing beyond what may be described as laboratory investigations have, up to now, resulted. In the demonstration a link had been established between a station on the cliffs of St. Margaret's Bay, near Dover, and another station across the Channel at Blanc Nez, near Calais. The two-way "micro-ray" telephone circuit was noteworthy for the quality of the speech received; not only was it well up to the standard of a high-quality telephone circuit, but it showed no signs of being affected by fading.

When compared with radiations of the more usual wavelengths, the "micro-rays" present many striking features. For example, their extremely short wavelength permits the use of electro-optical devices more usually associated with light—such as reflectors—in addition to diminutive aerial systems. A further similarity between these radiations and light is that,

although fog, rain, and such climatic conditions—as well as day and night—do not materially interfere with the propagation of the waves, it is necessary to have virtual optical visibility between transmitter and receiver, or at least that conductive obstacles of too great a length should not be interposed.



The transmitter and receiver on the cliffs near Dover

The two stations at Dover and Calais were in all essentials identical, and each comprised a transmitter, a receiver, and terminal equipment of normal design for connecting them together, so as to give facilities for two-way working

The "Micro-Ray" Equipment

The essential features of the transmitter are shown in Fig. 1. The out-going signals are applied to what is termed a "micro-radion" tube, in which the high-frequency oscillations are generated. A short transmission line connects this tube to the radiating system, or doublet, which is about 2 centimetres in length—a contrast to the more familiar aerial systems usually employed. The amplitude of the high-frequency current along the doublet at any instant is substantially the same. The doublet is situated at the focus of a paraboloidal reflector, some 3 metres in diameter, which serves to concentrate the radiated waves into a small solid angle, accurately directed towards the distant receiver. The relation between the focal length and the diameter of the reflector is so proportioned as to ensure maximum efficiency for the diameter used. In order further to increase the efficiency of the system by the prevention of radiation other than in the required direction, a hemispherical reflector is located at the opposite side of the doublet to the paraboloidal reflector, and having the doublet at its centre. This serves to collect all the radia-

tion propagated in a forward direction, and to reflect it back again towards the source.

The radius of the hemispherical reflector is chosen so that when the reflected radiations reach the focus again they are in phase with those being radiated at that instant. The appropriate length of the radius depends upon the wavelengths, the relation being that it should be substantially a multiple of half wavelengths, i.e., $\text{radius} = N \frac{\lambda}{2}$. The factor "N" is chosen so that the radius shall be large enough to ensure that the reflector has satisfactory electro-optical properties, but not so large as to intercept unduly the radiations reflected from the large paraboloidal reflector.

This function of the spherical reflector is illustrated in Fig. 2, the effect of diffraction being neglected in this description, although in practice it must be taken into consideration. It will be seen that the direct radiations such as A B pass straight to the paraboloidal reflector, and so are directed towards the distant receiver, whereas waves such as A C are reflected by the hemispherical mirror back through A to D, and so out in the required direction. It is estimated that the gain due to the paraboloidal reflectors on one channel is of the order of 46 decibels, to which the hemispherical reflectors add another 6 decibels.

A further interesting point is the arrangement made for measuring the high-frequency output at the transmitter. For this purpose an aperture is provided in the centre of the paraboloidal reflector through which part of the radiation passes. By making the diameter of the aper-

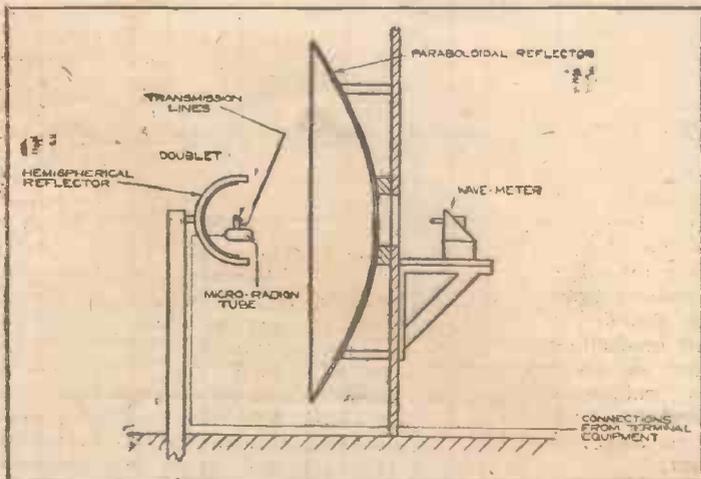


Fig. 1.—Arrangement of the transmitter

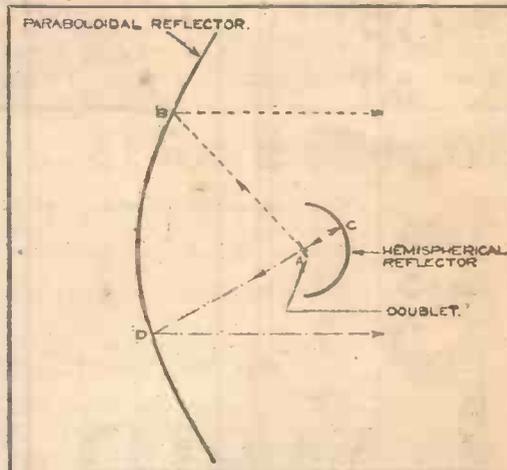


Fig. 2.—Illustrating the effect of the hemispherical reflector

ture slightly smaller than that of the hemispherical reflector, no appreciable loss of radiated power results. The radiations, passing through the aperture, fall upon the special measuring instrument employed. This is shown diagrammatically in Fig. 3. It takes the form of a wave-meter calibrated for, and normally set to, the transmitted frequency, and comprises a small receiving antenna in which the induced E.M.F. is used to act upon a thermo-couple junction. The readings of the associated galvanometer are an indication

(Continued in col. 3, page 612)

Correspondence

Short-Wave Reception—Prague Wavelength—A Fading Problem

To the Editor of WORLD-RADIO

SIR,—In a recent issue it was stated that you would appreciate reports of reception from the recently re-opened short-wave station VK3ME, Melbourne. On Saturday, Feb. 14, at 10.30 a.m., I picked up dance music and speech on this wavelength (31.56 metres), but was unable to identify this station definitely owing to fading and a powerful nearby morse transmitter. The speech was in English, several words being heard, and some of the dance items were reasonably clear in 'phones, apart from fading; one of the latter was "Dancing with tears in my eyes." Perhaps some of your readers also picked up this station, and were more fortunate than I in obtaining the call signal.

As regards short-wave stations generally, reception here from the more powerful European and American transmitters continues to be very consistent. The following are some of the entries in the log:—

Schenectady, W2XAD (19.56).—Excellent loud speaker signals between 6 and 7 p.m., also at 3.30 p.m. on Feb. 12.

Vatican, HVJ (19.84).—Excellent loud speaker strength up to 3.25 p.m. on Feb. 12, and whilst testing.

Pittsburgh East, W8XK (25.25).—Good 'phone strength.

Rome (25.4), generally on loud speaker in the afternoon.

Zeesen (31.38), perhaps the most powerful of all, in daylight.

Schenectady, W2XAF (31.48).—Very variable; best reception was on Feb. 9, from 9.45 to 10.45 p.m. at fine volume.

Lisbon, CT1AA (42.9).—Frequently heard. On Feb. 6 was at fair loud speaker strength, somewhat distorted, from 11 p.m.

Georgetown, VRY (43.86).—*—Heard best on Feb. 1 from 11 to 11.30 p.m. Good 'phone strength. Was heard on Feb. 15, at the same time, but weak and with fading. Orchestral items included Schubert's "Unfinished Symphony," "Ave Maria," etc. W8XK and W3XAL continue to give excellent reception. W2XE and certain other 49-metre stations are not received so well as at the same period a year ago. HVJ, on 50.26 metres, is very powerful. My receiver at present is a S.W. Adaptor plus o-v-2 set.

Yours faithfully,
N. Y. R.

Staines, Middlesex.

To the Editor of WORLD-RADIO

SIR,—I have pleasure in reporting short-wave reception, as follows:—

W2XAD.—Heard on Feb. 8, 9, and 12, at good strength, little fading and no noise. On the 12th, the whole of opening of HVJ was heard ~~via~~ *W2XAD*, and at 16.00 G.M.T., signals were equal to *5XX*, with slight surging and no interference; intelligibility 100 per cent.

W2XAF.—Heard at strength equal to *5XX* on Feb. 11 at 20.00, fading slightly, no noise. At 23.00 on Feb. 12, full loud speaker strength, no fading, no noise.

W3XAL.—Heard on Feb. 9, 10, 11, and 12 at good loud speaker, but heterodyned by *W2XE*. This station has a fairly high noise level, but intelligibility is always 100 per cent.

W8XK (25.25) heard every evening from about 18.00 onwards, but always at weak loud speaker and very poor; intelligibility about 25 per cent. Fades badly. Other American stations have been heard, including *2XE*, which station gave fair strength, but faded badly, with a high noise level.

CT1AA.—Was heard at 22.50 G.M.T. on Feb. 6 at full loud speaker volume, but badly distorted and fading; intelligibility about 50 per cent.

Zeesen and *Rome* have been heard almost every afternoon at full loud speaker strength equal to *5XX*, with very little fading.

Saigon has been heard on about 30 metres, calling Paris: the strength was fair and intelligibility 100 per cent.

The station which relays Hilversum on about 50 metres has been heard every day from about 10.30 to 18.00 G.M.T., at varying strength from full loud speaker to very weak.

Yours faithfully,
R. C. Le M.

Stockport, Cheshire.

To the Editor of WORLD-RADIO

SIR,—On January 1 I received VE9GW, Toronto, Canada, on 49.22 metres, the power output of this station being only 27.5 watts. I received their programme for about an hour, part of this being sufficiently strong for me to bring the loud speaker into use. I have just received a letter from VE9GW confirming this, and their director states that my report is from the greatest distance they can trace having covered as yet. In view of this, I shall be interested to know if any of your readers have also received this station.

In their letter, they give details of transmissions which may be of interest—weekdays, 6.45 a.m. to 8 a.m., 3 p.m. to 12 midnight; Sundays, 12.30 p.m. to 11.15 p.m. All E.S.T. (add five hours to convert to G.M.T.).

I also received, a few nights ago, the station Georgetown—British Guiana—43.86 metres.* This came through at fair L.S. strength with little fading for over an hour, and every word and song, etc., could be clearly distinguished. Is this station generally received in this country? My set is of the o-v-2 type.

Yours faithfully,

Barnt Green, Worcs.

W. C.

Prague Wavelength

To the Editor of WORLD-RADIO

SIR,—I should be very glad to know whether other readers find that Prague on 58 metres will not fit into their calibration chart. I can run a most satisfactory line through stations between 42 and 51 metres, and this line produced will pick up Rome on 80 metres, as well as old readings for Nauen and D.beritz in the neighbourhood of 70 metres, but it misses Prague by a long way. To get Prague on to the line it has to be shifted to somewhere about 64 metres.

Yours faithfully,

Southampton.

R. C. A.

* VRY is now operating on a wavelength of 44.6 metres.

To the Editor of WORLD-RADIO

SIR,—I enclose copy of the schedule for W3XAL at Bound Brook, N.J., operating on a wavelength of 49.18 metres (6,100 kc s). Any enthusiast who appreciates good soothing music will be delighted with the "Slumber Hour Music," transmitted from this station every morning, except Mondays, from 04.00-05.00 G.M.T. The "Slumber Hour" is followed by an hour of dance music. Listeners who do not possess a short-wave receiver may receive the same programme from WJZ, New York (pronounced by the Americans WJZee) during dark hours on 395 metres.

From January 14 to January 29, on a Mercator line drawn from Ushant to Santa Marta, Colombia, in lat. 11° 15' N., long. 74° 14' W., G5SW was received at loud speaker strength until sunset at the receiving station, and occasionally for one hour after sunset. Then signals faded away altogether.

Yours faithfully,

SS. —, At Sea.

(Capt.) H. R.

A Fading Problem

To the Editor of WORLD-RADIO

SIR,—From 11.30 p.m. to midnight on Tuesday, April 7, I had very good reception of W1XAZ (31.35) and, by careful adjustment, I was able to hear this station and W2XAF (31.48) simultaneously, at approximately equal strength. A certain amount of slow fading was occurring, but, in spite of the closeness of the two wavelengths and of the geographical positions of the transmitters, there was no co-relation of the fading periods. On the contrary, at one moment speech from W2XAF would predominate over the music from W1XAZ; the next moment the position would be reversed; and, occasionally both would become quiet, or loud, together. Each programme varied in strength quite independently. If "fading" is caused by irregularities in the Kennelly-Heaviside Layer, the W1XAZ and W2XAF waves would be expected to meet the same irregularities, and, therefore, to "fade" in step, one with the other. Or is it that the slight difference in wavelength (0.13 metre) in some way accounts for the phenomenon observed?

Yours faithfully,

Dartford, Kent.

J. H. R.

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Short-Wave Notes

ATENTION is called to changes of reception times of short-wave stations owing to the introduction of Summer Time at 2 a.m., on Sunday, April 19. For this week, all times shown in the Short-Wave List (page 607) remain as G.M.T., and British, French and Spanish stations, which will change to Summer Time simultaneously on Sunday next, will continue to be received at the times indicated. Certain eastern states of Canada and America, including New York, also change over but not until Sunday, April 26. The Short-Wave List will be corrected in next week's issue.

Reports which are just coming to hand regarding reception of G5SW in India and Ceylon, indicate good results obtained during the period of excellent short-wave conditions in the first two weeks of March. About the same time also, the mid-day transmissions were being heard, clear but weak, at 6 to 7 p.m. local time. Calcutta, VUC (25.27), is also being well received in the East, and from home and abroad, particularly from the near East, come reports of good reception of W8XK (25.25).

Although, as mentioned previously, the Eindhoven transmitter on 50.1 metres is not a regular broadcasting station, we learn that it proves a useful alternative to Hilversum (298.8 metres) in some districts where morse interference is experienced on this wavelength.

Tonight's programme from Lisbon (42.9) will include orchestral and vocal records; English Talk—"Everlasting Beacons"; French Talk; Portuguese Music; Dance Music, and News Bulletin (Portugal and Colonies).

Changes in the Short-Wave List this week include the following—Toronto (49.22) becomes Bowmanville; Nairobi now transmits on 49.5 metres instead of 50; the schedules of W3XAL (49.18) and W2XAF (31.48) are slightly altered, and Saigon (29) is deleted as it is now understood that no broadcasting takes place on this wavelength.

Readers' Reports

Radio LL (61). Heard at good loud speaker strength at Wallasey, Cheshire, 8.45 to 9.15 p.m., March 13 (0-v-2 set).

Prague (58). Heard at Wallasey, Cheshire, 8.30 to 8.45 p.m., March 13. Fair loud speaker strength but badly jammed by morse (0-v-2 set).

Bucharest (50). Received at London, S.W.10, 7.45 p.m., March 24. Fair 'phone strength (0-v-1 set).

Philadelphia (49.5) Heard at Wembley (Middlesex), 5.30 to 6 a.m. on April 3. Weak 'phone signals with slight fading (0-v-1 receiver).

Bowmanville (Toronto) (49.22). Received clearly, but at weak 'phone strength, at Wembley, 4.30 to 5 a.m., April 7. Interference from W3XAL (0-v-1 set).

Richmond Hill (49.02) Good 'phone reception at Southall (Middlesex), from 11 p.m., April 2 (0-v-1 set). Also heard at Wembley, 4.30 to 5 a.m., April 7. Very loud and clear on 'phones (0-v-1 set).

Tegucigalpa (48.62). Strong and steady 'phone reception at Wembley, 4 a.m., April 5 and 7. Quality poor, carrier wave unsteady (0-v-1 set).

Lynby (31.51). Heard, at good 'phone strength, at London, W.14, from 6.30 p.m., April 3 (0-v-2 set). Also heard at Wembley, moderate 'phone strength but clear, 7.30 to 8 p.m., April 6 (0-v-2 set); at Wallasey, good L.S. strength from 7 p.m., on various dates from March 10 to 19 (0-v-2 set); and at Mapperley (Notts), where this station is often received before 7 p.m.

Rabat (23.8). Many reports to hand, referring to reception at good loud speaker strength at Coventry, 12.45 p.m., March 29 on 0-v-2 set; at Kempston (Beds.), each Sunday from 7 to 9 p.m., on 0-v-2 set; and excellent 'phone strength on 0-v-1 receiver at Wallasey, 1.30 to 2 p.m., March 22; and at London, S.W.10, 8.20 to 8.45 p.m., March 22.

Bandoeng (15.93).—Several reports received from listeners at Halesowen, Wembley, London, S.E.13, St. Leonards, and Mapperley. In general, good results are obtained, but fading is rather troublesome.

RADIO-TELEPHONY ON EIGHTEEN CENTIMETRES

(Continued from page 609)

of the radiated power, while the distance between antenna and metal screen, being adjustable, also enables wavelength measurements to be made. In the demonstration the wavelength used was 18 centimetres, while the radiated power was of the order of 0.5 watt.

The receiver is a counterpart of the transmitter, except that no high-frequency measuring device is provided. That is to say, it comprises a doublet connected by a transmission line to

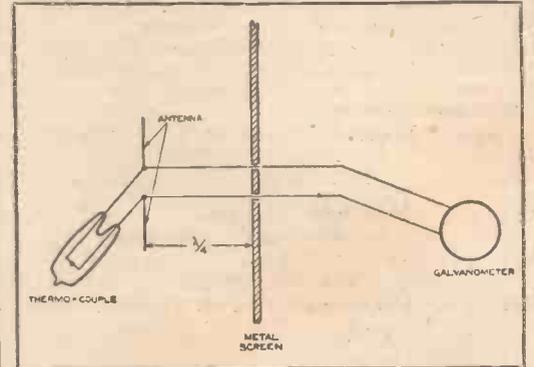


Fig. 3.—The wavemeter employed

the "micro-radion" tube where detection takes place. Paraboloidal and hemispherical mirrors exactly similar to those of the transmitter are also provided for concentrating the waves received upon this doublet.

To avoid interaction, the receiver at each terminal station is situated about eighty yards from the transmitter, and is arranged to be in its electro-optical shadow, adequate allowance being made for diffraction. The same wavelength is used both for transmitting and receiving.

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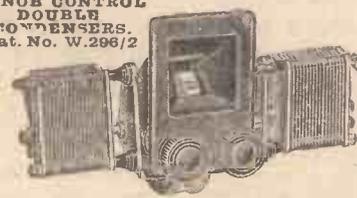
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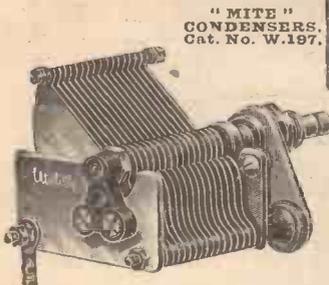
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PROGRAMME SECTION

Continental Programme Events

SUNDAY, APRIL 19

- Concerts**
 6.15 p.m. Brussels No. 2: Orchestral.
 8.0 " Berlin, Königs Wusterhausen: Berlin Philharmonic Orchestra, conducted by Furtwängler.
 8.0 " Brussels No. 1: Symphony concert.
 8.0 " Oslo: Symphony concert.
 8.15 " Copenhagen: Debussy and Ravel compositions.

- Operas and Operettas**
 8.0 p.m. Heilsberg, Langenberg: "Samson and Delilah" (Saint-Saëns)
 8.0 " Leipzig: "Faust" (Louis Spohr).
 8.15 " Mühlacker, Frankfurt: "The Secret Marriage" (Cimarosa).
 8.30 " Rome, Naples: "Bacco in Toscana" (Broggi).
 8.55 " Hilversum: "La Bohème" (Puccini).

MONDAY, APRIL 20

- Concerts**
 7.35 p.m. Frankfurt, Mühlacker: Beethoven concert.
 8.0 " Copenhagen: Swedish folk music.
 8.20 " Langenberg: String Orchestral concert.
 8.30 " Budapest: Orchestral.
 8.30 " Vienna: Mahler's Third Symphony.
 8.40 " Hilversum: "Ino" (Cantata by Telemann).
 9.0 " Leipzig: Compositions by Leipzig composers.
 9.0 " Milan-Turin: Relay of Concert "Radio-Marelli."
 9.10 " Berlin: Orchestral.
 10.25 " Copenhagen: Symphony concert.

- Operas and Operettas**
 7.35 p.m. Munich: "Ariadne auf Naxos" (Richard Strauss).
 8.0 " Brussels No. 2: "A Winter Night's Dream" (A. de Boeck).
 8.0 " Hamburg, Königs Wusterhausen: "Indigo" (Johann Strauss).

- Plays**
 8.45 p.m. Heilsberg: "Coriolanus" (Shakespeare).

TUESDAY, APRIL 21

- Concerts**
 8.0 p.m. Berlin, Heilsberg, Königs Wusterhausen: Evening of Dance Music.
 8.0 " Brussels No. 1: Orchestral.
 8.0 " Copenhagen: Danish Chamber Music.
 8.0 " Hamburg: Symphony concert.
 9.55 " Vienna: Haydn chamber music.
 10.55 " Hilversum: Symphony concert.

- Operas and Operettas**
 7.30 p.m. Budapest: "The Mask" (Hubay).
 9.0 " Rome, Naples: Opera relay.
 9.20 " Milan-Turin: "The Best Beloved."

WEDNESDAY, APRIL 22

- Concerts**
 8.0 p.m. Königs Wusterhausen: Orchestral.
 8.0 " Prague, etc.: Berlin Philharmonic Orchestra, conducted by Furtwängler.
 8.0 " Stockholm: Symphony concert.
 9.30 " Frankfurt, Mühlacker: Compositions by Igor Markevitch, followed by Chamber music.

- Operas and Operettas**
 8.5 p.m. Vienna: "The Seven Swabians" (Millöcker).
 9.0 " Rome, Naples: Opera relay.

THURSDAY, APRIL 23

- Concerts**
 7.30 " Berlin, Königs Wusterhausen: Music from the Hotel Adlon.
 7.45 p.m. Budapest: Symphony concert.
 8.0 " Copenhagen: Relay from Axelborg Concert Hall.
 8.55 " Hilversum: Relay from Concert Hall, Amsterdam.
 9.0 " Heilsberg: Symphony concert.
 9.0 " Langenberg: Symphony concert.
 9.0 " Munich, Königs Wusterhausen: Symphony concert.
 9.5 " Rome, Naples: Zandonai concert (composer conducting).
 9.10 " Leipzig: Orchestral concert.

- Operas and Operettas**
 7.30 p.m. Stockholm: "Tannhäuser"
 8.0 " Radio-Paris: "Il Seraglio" (Mozart).
 9.0 " Milan-Turin: Opera relay.

FRIDAY, APRIL 24

- Concerts**
 8.0 " Hamburg: French and Italian music.
 8.5 " Mühlacker, Frankfurt: Symphony concert.
 8.30 " Sottens: Symphony concert.
 8.30 " Strasbourg: Chamber music.
 8.45 " Radio-Paris: Chamber music.
 9.20 " Munich: Chamber music.
 12.30 a.m. (Saturday): Heilsberg: Modern Church music.

- Operas and Operettas**
 7.30 p.m. Vienna: "Idomeneo" (Revised version by Richard Strauss).

SATURDAY, APRIL 25

- Concerts**
 8.0 p.m. Brussels No. 1: Operatic overtures.
 8.0 " Leipzig, Königs Wusterhausen: Leipzig Men's Choir's Jubilee Concert, relayed from the Gewandhaus.
 9.0 " Mühlacker, Frankfurt: Victor Hollaender compositions.

- Plays**
 9.0 p.m. Radio-Paris: "Athalie" (Racine).

RADIO AND RAMADAN

(Continued from page 604)

All the natives are bidden to fast except the very young, the very old and the sick. Hence, during the whole of the day tempers are inclined to be short, and not too much work is done by native servants, owing to the severe physical strain of the long fast, which is supposed to last as long as the sun is above the horizon while it is possible to distinguish a white thread from a black one.

And so during the night they give themselves up wholeheartedly to "fascinatio nugacitatis"—the bewitching of trifling—and are most childlike in some of their amusements.

It is really a case of:—

"The night shall be filled with music,
 And the cares that infest the day
 Shall fold their tents like the Arabs,
 And as silently steal away."

F. K. BRENNAN.

Interference between Stations

(April 5—11)

ON April 2 Oslo returned to his previous frequency of 280 kc/s. He is now undoubtedly less heterodyned by Russian stations than he was last month when working on 277 kc/s. This is due to the fact that Tiflis, on 285 kc/s, is less powerful and much more distant than Moscow (Popoff), 273 kc/s, who was the cause of the 4,000 cycles note which was distinctly heard on Oslo transmissions last month.

Bordeaux-Lafayette seems to be rather unlucky as regards interference; in fact, his transmissions with the new powerful transmitter have not yet been absolutely clear. A great improvement took place when Falun left Bordeaux frequency to go to 977 kc/s. Unfortunately, since the 2nd inst., Zagreb has used 983 kc/s, and from that moment Bordeaux has been badly heterodyned, though a slight improvement has been noted since the 8th.

As a result of the opening of the new Sottens transmitter on 743 kc/s, Berne, which previously used this frequency, works now on the International Common Wave of 1,220 kc/s. He was found for the first time on the 7th on his new place, but was 1,228 kc/s instead of on 1,220 kc/s; he was thus badly heterodyning Basle, which works on 1,229 kc/s.

Heilsberg has experienced since the 9th a very severe interference caused by Bratislava, who is 9 kc/s off his allotted frequency of 1,076 and works almost exactly on Heilsberg's one of 1,085. The heterodyne note has been thus of low frequency, varying from a few cycles per second to 400; this interference can be compared, to a certain extent, to that between Turin and Tallinn, but is a more unpleasant one as Bratislava is comparatively much more powerful than Tallinn. L.B.

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Last Week's Log

(April 5—11)

By "NORTHERNER"

CONDITIONS during the week between April 5 and April 11 have been marked by a slight relapse, which will no doubt continue as the finer weather approaches, but, in spite of this change, reception has, on the whole, been very good, and many foreign programmes were received with great success. Static was not troublesome except on one evening, that of the 7th, when its activities spread even down to the short-wave band, and for some time heavy crashes were observed, making reception very unpleasant.

On the long waves reception has been good, and Radio-Paris has been particularly well received throughout the week. Huizen is not a very powerful signal, but is nevertheless a station well worth tuning in, and is at all times clear of interference. Warsaw, Motala and Königs Wusterhausen were next in order, and gave excellent results; but some interference was experienced with Kalundborg, and Oslo on several occasions, and I have found a considerable increase in heterodyning at the lower end of the long-wave band recently.

The best stations on the medium band were Brussels, Rome, Stockholm, and Heilsberg, and it was possible to obtain first-rate reception from these with normal amplification on any evening. Vienna was uniformly good on most nights, but Budapest did not give a very good result until a much later hour than has been customary in the past few weeks. Toulouse, although still suffering from occasional distortion, was perhaps a little better received than was the case in my previous review, but signals are much below the standard of some two months ago. Bucharest and Belgrade have not been heard very well for some reason, and the strength of both transmitters has varied considerably without a really good mark for any evening. Witzleben shows no change, and provides a steady signal of moderate strength, while Mühlacker and Strasbourg have on occasion given splendid results when fading was absent. Mühlacker signals, by the way, seem to play very queer tricks, and during certain evenings when I have found reception impossible through fading, several of my friends within a short distance have reported excellent results.

Graz was entirely disappointing, and was seldom audible at good strength, although I usually find him most consistent, but Milan has maintained a very good performance during the week, and appears to be coming through more reliably than ever before.

Breslau and Gleiwitz were both well received, but varied from day to day without gaining a really first-rate mark at any time, while Hörby and Nürnberg behaved in a very similar manner. Dublin is still heard at moderate strength and Cork has his usual good nights and very bad ones, when signals are accompanied by that peculiar form of distortion experienced in trans-Atlantic reception. Heterodyning is unfortunately still very much in evidence around many stations which would normally provide very good results.

The short waves have offered quite interesting fare without any particularly good night. The programme of W8XK relaying KDKA was heard at very good volume on the evening of the 9th, signals increasing to maximum about 9.30 p.m. with very little fading. Rome continues to give excellent results, but I have been unable to obtain normal reception from W2XAF. Zeesen is a splendid signal until dusk and CT1AA gave very good results on the evening of the 10th.

Saigon and Rabat were good, while the transmission from Moscow on 50 metres was again received well on several evenings.

Heard on the Continent

By "CENTRAL EUROPEAN"

ONCE again—in the first days of April—we were having winter reception, clear and undisturbed as during the best days of winter. But not for very long. Atmospheric disturbances have been growing daily in strength and unpleasantness. Only stations situated in a north-easterly and easterly direction are now heard well, the signal strengths of the others fluctuate a good deal and are subject to much atmospheric interference.

The first test-transmissions of the new Brno transmitter were well heard in Central Europe. The modulation sq far has been excellent, nor could I notice any fading. The close proximity of Strasbourg, however, appears to affect Brno. Every now and then the former's signal grows in strength and so interferes with the latter, and vice-versa. At all events, all Czechoslovak stations—with the exception of Kosice, which is now heterodyned by Limoges—are now received with great strength. Radio Vilno is another station the test transmissions of which were a strong signal during the nights of the second week in April. The new North Regional transmitter at Slaithwaite, too, is received with great clarity, but Beromünster's tests are subject to strong interferences. These are largely caused by small Scandinavian stations, which do not keep strictly to their common wave—453.2 metres. Sottens, however, continues to be heard with great strength. But, generally speaking, the signal strength of almost all the southern and western European stations has greatly decreased. Toulouse, for instance, could be but feebly heard on some days, but even when it was louder it never reached its old strength. The Spanish stations seem to have disappeared altogether. Radio-Paris, on the other hand, has greatly improved of late. The Italian stations, too, have been very excellent during the last few weeks. To name only one outstanding transmission, the relay of *Don Giovanni* from La Scala, Milan, with Bruno Walter conducting and Signor Stabile singing the title part, was one of this season's most delightful broadcasting events.

Which Station Was That?

Answers to Correspondents

OTAZEL (Drury Lane): (99) Sottens; (100) ves, Göteborg. **GUNGER** (Hirwann): WPG, Atlantic City. **NEW-COMER** (Victoria): Kalundborg relaying Copenhagen. **TALLYHO** (Derby): Hanover, relaying Hamburg. **M. R.** (Eccles): Algiers. **AMY** (Preston): Radio Châtelineau (near Charleroi), Belgium. **JENKALL** (Sheffield): Possibly WHAM, Rochester, N.Y. **GALTEMORE** (Mitchelstown): Sottens. **MARINER** (S.W.9): Warsaw-Raszyn high power transmitter. **VIMY RIDGE** (Wrot. am): WPG, Atlantic City. **MAGS** (Feixstowe): (1) no, but possibly Bergen testing; (2) Sottens relaying Geneva. **EICHRA** (Eyemouth): WJZ, Boundbrook. **ROLAND** (S.W.3): Cannot confirm, but possibly Vienna, which has been testing on a wavelength above 1,000 metres. **FIRELESS WIEND** (Torquay): Surely Northern Regional testing. **ONE VALVE** (Letchworth): We do not know an Italian station on that wavelength, but details appear to tally with the Poznań short-wave transmitter (30.5 m.). **MAC W.** (Upper Tooting): Sottens. **ELSIE** (Hounslow): French aerodrome transmission; either St. Inglevert or Le Bourget. **TWIDDLER** (Harrow) Moscow (Trades Unions). **F. E. B.** (Walsall): Radio Idzera, The Hague (Holland). **PHILLIPU** (Edinburgh): PTT Paris. **NELLYCUMS** (Littlestone): (113) Huizen. **SULIS** (Beawort. y): Sottens. **BASS** (Annan): Regret, cannot give such information. May we remind you of the terms of your listening licence? **P. A. C.** (Ilford): Please number queries. (1) Sottens; (2) regret, cannot trace. **PROMENADE** (Torquay): Sottens. **GROGER** (Morpeth): (1) apparently amateur transmitter; (2) regret cannot trace; (3) WTIC, Hartford; (4) Radio Idzera, The Hague. **JOXER** (Dublin): Possibly CBS Rugby or its opposite number WOO, (N.J.). **SULIS** (Beaworthy): Moravská-Ostrava relaying gram. records from Prague. **LESCO** (Gravesend): Eiffel Tower relaying PTT Paris; its own programme usually terminates at about 9.0 p.m. **FREIGHTER** (Eastbourne): Amateur experimental transmitter. **SHORT WAVE FAN** (Tiverton): We understand that the WL of JIAA is 24.8 m. **T. F. ETHER** (Southampton): WPG, Atlantic City (N.J.). **H. S. B.** (St. Leonards): Regret, cannot trace. **DENT** (Newhaven): W2XE relaying WABC, New York (Columbia programme). **PAUL ATIM** (St. Leonards-on-Sea): British relays taking the National programme on common wave. **CLARET** (S.W.1): Regret, cannot trace; there is no likely station between Rome and Stockholm, and both these studios were broadcasting a totally different kind of programme. **BEINN BHEOIL** (Maad-Egypt): Possibly GBW, Rugby on 20.78 m. **MAK-SICCAR** (Edinburgh): Poznań short-wave transmitter. **K. G. W.** (Ports-

mouth): PTT Marseilles, own concert. **K. G. N.** (Wilton): Possibly WTAM, Cleveland (Ohio). **CHUCK** (WEASTE): We regret the error; either WABC, New York, or WENR, Chicago. The details you give are too vague to identify an individual transmitter; (2) there is no U.S.A. call-sign WBDA, but you may have heard WBZ (Zee) A, Springfield, relayed through KPO, San Francisco. They are both in the NBC system. **M. C.** (Castletford): Regret, cannot trace. **THE MEDE** (Plymouth): WTIC, Hartford, direct. **LIDO** (Wallasey): Cannot understand your enquiry. The figures you give for wavelengths are apparently your dial readings, and we cannot identify transmission from this information only. **PEMBERTON** (Walfsea): (1) postal query; (2) cannot trace; (3) WCAU, Philadelphia; (4) WABC, New York; (5) yes, WPG, Atlantic City, direct. **GREENED GRID** (Bristol): WJZ, Boundbrook. **T. N. A. C. L.** (Thornton Heath): (2) WPG, Atlantic City, direct. Power is 5 kW.; (3) WBZA, Boston, on 302.8 m., 0.5 kW. **REDHERRING** (Lowestoft): Sottens relaying Lausanne programme. **INTERESTED** (Bristol): Barcelona (EAJ1). **CHADY** (Stc. ford): WABC New York; (2) WLW, Cincinnati. **LQU** (Bradford): (1) jazz orchestra relayed from Budapest hotel; (2) regret, cannot give information as the details were not advertised in programme. **REVELLE-MATIN** (Bushey): Possibly WOR, Newark (N.J.), not New York. **DIBS** (W.8): North Regional (Slaithwaite) testing. **BILLOW** (Claygate): this was Katowice; gramophone records preceding "Letter Box" transmission in French. **WOODCROFT** (Heswall): Are you sure that the language was Spanish, as the time tallies with the early morning transmission from Kharkov? **DIXIE** (Broug. ton): Apparently Moscow (Trades Unions). The Soviet stations frequently broadcast late transmissions for the sake of night workers. **V. Q.** (South Shields): Aerodrome transmissions. **HOOLITZ** (Shipley): Turin relaying Milan (see wavelength under "Deviations" in current issue). **LOCO** (Wrexham): Leningrad; early morning physical exercises. **SUPERMAN** (Bournmouth): Kaunas. **EASTER EGG** (Southgate): (113) WGY, Schenectady; (114) KDKA, East Pittsburgh; (112) possibly WCCO, Minneapolis. **CURIEUX** (Fulham): Possibly a test by Brno (gramophone records). **ROSE BUD** (Llandaff): Lyons PTT; relay of running commentary on the start of the Six Days' Cycle Race from St. Etienne. **EAGER** (Souta Hackney): Sottens. **PYEITE** (Otley): (2) WPG, Atlantic City; (3) WABC, New York. **CURIOUS** (Forest Hill): You appear to have picked up amateur transmission in your immediate neighbourhood. **SOUTH EALING**: Croydon aerodrome and airplanes. **WEARY WILLIE** (Aberdeen): Yes, Sottens. **PATIENCE** (Yatton): PTT, Lyons; running commentary on the start of the Six Days' Cycle Race at St. Etienne. **SEZ YOU** (Portsmouth): Croydon aerodrome. **ADOLPHUS** (Harlesden): Fog beacons and wireless direction-finders. **CRANKSHAFT** (Dursley): Madrid (EAJ7). **NIMROD** (Sheffield): Tallinn; relay of service from local church. **NIMMER** (Mapperley): Sottens; relay of II Trovatore from Geneva. **MUSIC LOVER** (Leeds): Sottens; relay of Lausanne programme. **PYEITE** (Otley): Please number your queries. Probably WTIC, Hartford. **GO-OP** (Stratford): (2) Radio Strasbourg. **HOJA** (Ghorlton): WPG, Atlantic City. **ENERGY** (East Ham): Reykjavik. **QUESTION MARK** (Litterland): (1) PTT, Lyons; (2) Zürich. **PUZZLED** (Aston): WJZ, Boundbrook. Z is pronounced "Zee." **FRITZ** (Malta): Sottens (Switzerland); gramophone records. **HIGHLANDER** (Gloucester): No, Lwów relaying Vilno, hence cuckoo interval signal heard. **KEENAN** (Burgess Hill): Heilsberg. Two notes as interval signal; a metronome heard when this station relays Berlin. **CHIPPENHAM TROTTER**: This was Barcelona (EAJ1); a relay of a concert. **POUVEZ-VOUS ME DIRE?** (Sandowne Meats): (1) Bordeaux-Lafayette; gramophone records following short plays; (2) regret, cannot trace any late transmission on that wavelength; (3) WJZ, Boundbrook; (4) possibly WGY, Schenectady; (5) WTIC, Hartford; (6) WABC, New York; (7) possibly Radio Idzera, The Hague; gramophone records; (8) too vague, cannot trace; (9) WEA, New York. **EROMK-GIB** (Wit am): Rabat relaying Radio Maroc programme. **EARLY WORM** (Plastow): WGY, Schenectady. **LANGASTRIAN** (Nettingham): WJZ, Boundbrook; (2) WABC, New York. **DON Q** (Tralee, I. F. S.): WPG, Atlantic City. **OFFENDED EARS** (W.11): Scheveningen-Haven (Holland); commercial transmitter; no entertainment broadcasts. **ADEL** (Harrow): WPG, Atlantic City. **HOJA** (Chorlton): WTIC, Hartford. **EVA** (Liverpool): Sottens; a relay of either Geneva or Lausanne programme; if a woman announcer, from the latter studio. **SEZ ME** (Chorlton): Please number your queries. (1) Cannot confirm, but possibly WENR, Chicago; (2) WTIC, Hartford. **WAVETRAP** (N.W.3.): Scheveningen-Haven (Holland); see reply to OFFENDED EARS above. **T. N. A. C. L.** (Thornton Heath): (1) WTIC, Hartford (Conn.). Power is 50 kW. **J. Y.** (Sheffield): Sottens (Switzerland); the call was: "Ici Radio Suisse Romande." **JAYJON** (Brotin Ferry): WPG, Atlantic City. **THE CONKER** (Nottingham): Yes, Nice-Cannes-Juan-les-Pins. **EBORACUM** (York): WGY, Schenectady. **NIGHT BIRD** (Plymouth): WPG, Atlantic City. **ISIS** (S. irley): Madrid (EAJ7). **DE BARRE** (Gosham): GAUTIER (Birmingham): Sottens, see reply to J. Y. (Sheffield) above. **GURLES** (Twickenham): WPG, Atlantic City. **JUNO** (Eastbourne): Yes, Northern Regional testing. **EARLY MORN** (Bristol): Langenberg; early morning Easter Service relay; (2) WGY, Schenectady. **WIRELESS WILLIE** (Grant. am): WPG, Atlantic City. **MOS-COW FRED** (Birmingham): Tallinn; relay of service. **F. G.** (Great Crosby): WTIC, Hartford. **B. F.** (Blakeney): Aerodrome and airplane transmissions. **MILLS** (Radnor): There is no French station between Daventry National and Eiffel Tower; it must have been the latter you heard. **IN THE DARK** (Ilford): Brussels No. 1. **GINK DOGGY** (Middlebrough): WTIC, Hartford. **CHISEL** (Topsam): WPG, Atlantic City. **NEW VALVE** (Holloway): Brussels No. 1; gramophone records. **NOTTY** (Teddington): (1) WGY, Schenectady; (2) WPG, Atlantic City; (3) WJZ, Boundbrook. **FLOUR PACKER** (Salford): WPG, Atlantic City. **YANK** (Newcastle-on-Tyne): Tallinn; relay of service. **AMAZING** (Boston): Radio Strasbourg. Announcements are made in both French and German. **BOY FAN** (Gleadon): Madrid (EAJ7). **BRITA** (Boote): (1) WJZ, Boundbrook; (2) WBZ, Springfield. **BLUEBELL** (Gudworthy): WGY, Schenectady, relaying WTIC, Hartford. Yes, Maurice Chevalier broadcasts in the N.B.C. programmes. **A. W.** (Bran-tre): Cannot trace without some indication of wavelength. **CUCKOO** (W.9): Yes, Sottens (Switzerland). **ART** (Easington Colliery): Possibly WENR, Chicago, but cannot confirm. **NINETY-NINTH STATION** (Stamford Hill): Regret, cannot trace call-sign; it is not that of an American Station. **NOVICE** (Acrington): British amateur transmitter; (2) possibly Vienna testing on a WL above 1,000 metres. **V. W. X.** (Workington): Flensburg; relaying Hamburg programme. **EXPERIMENTER** (Bromley): Please number your queries. (1) cannot trace Morse stations in these columns; (2) yes, Lahti relaying Helsinki. **HAUSA** (Stonehouse): San Sebastian (EAJ8). **KRIS** (Cardiff): (1) Tartu relaying Tallinn; (2) Tallinn; a relay of a service from cathedral. **GO-TO-BED** (Wakefield): WPG, Atlantic City. **H. T. ELIMINATOR** (Stretford): Possibly a relay by Stockholm received through Hörby; the transmission was not

advertised in published programmes. **PAULATIM** (St. Leonards): Moscow (REN) on 49.6 m. **WELLO** (Watford): This was Hilversum (V.A.R.A. programme). **5D.C.** (Edinburgh): Kaiserslautern-Augsburg (common wave), relaying Munich. **BEATEN** (Southport): Cracow relaying Warsaw. **KILLOUGH** (Glasgow): We do not understand your query, as your wavelength points to W2XAF, Schenectady. **GET IT PERHAPS** (Bristol): Leipzig; (2) Bordeaux-Lafayette. **BANMAI** (Bangkok): Moscow (50 m.), relaying Moscow (Trades Unions). **FIVE POINT TWO** (Dorchester): W2XAF relaying WGY, Schenectady. **WAVETRAP** (N.W.3): (111) Aalesund relaying from Stockholm; (114) Lyon-la-Doua; running commentary on Six Days' Cycle Races. **AUSSIE** (Chorlton-on-Medlock): Do not recognise call-sign; cannot trace. **TEGGART** (Peckham): (1) WGY, Schenectady; (2) Radio-Idzerda, The Hague; (3) WCAU, Philadelphia; (4) WPG, Atlantic City. **HUSH YER MOUF** (Gourock): WL appears to be wrong; this was Radio Toulouse. The last item heard was a march by Lafon. **DO YOU GET ME?** (Cwmcaran): Interference from land-line. **SAPPER** (Punjab-India): Gleiwitz relaying fifteen minutes' English talk from Breslau. **T. T.** (L. eds): Zürich. **S. W. F.** (Birmingham): Eindhoven (experimental transmitter) relaying Hilversum programme. **INQUISITIVE ONE** (Purley): No. Falun relaying Stockholm. **NANKEE** (Burgess Hill): Turin is on 296 m.; see under "Deviations" in current issue. Berlin (common wave stations). **ONDETO** (Brighton): If immediately above W3XAL, then W9XAA, relaying WCFL Chicago on 49.84 m. **BOY LISTENER 163** (Edinburgh): If by "harmonic" you mean "relay," then Boden. **DAMEN UND HERREN** (Limerick): Regret, cannot trace; there are a number of public telephony services on and around that wavelength. **COSINE** (S.E.13): KSTP, St. Paul (Minn.) on 205 m. relaying WEAJ, New York. **LANGNEY** (Eastbourne): WND, Louisville (N.J.), on 16.35 m. (18,340 kc.). **ARGUS** (Blackpool): Cardiff as per programme. **CITROEN** (Acton): Not advertised, but possibly Madrid (E.A.7). **JUDAXI** (Small Heath): Moscow (50 m.), relaying Trades Union programme. **BILL BAILY** (Tralee): (1) Riga advertised the broadcast of a service at 3 a.m. G.M.T.; we can trace no other transmission; (2) vague; there are five U.S.A. stations on 491.5 m.; possibly WIP, Philadelphia. **LENMARRY** (Rushmore): No date given; cannot confirm, but according to wavelength would tally with Brussels No. 2 (Flemish broadcast). **SLEEPLESS** (Waltham Abbey): Tallinn relaying church service; Turin is on 296 m.; see under "Deviations" in current issue. **NOVICE** (Reading): (1) no, W2XAD, Schenectady (relaying WGY); (2) W8XK, relaying KDKA, East Pittsburgh. **SALONIKA** (Polmont): We know no Spanish station on that wavelength; possibly Bordeaux Sud-Ouest. **ONE TURN** (Glastonbury): WNC and WOO, Deal Beach (N.J.) on 17.62 m. **WAQ** (Oxford): (1) regret, cannot trace; (2) possibly an acrochrome transmission. **LAPIN** (Dufftown): (1) apparently harmonic of 49.18 m. (W3XAL, Boundbrook); (2) Tartu relaying Tallinn. **WATERS** (Battersea): Proprietary names must not be used as *sans-de-plume*. According to wavelengths: WPG, Atlantic City; WTIC, Hartford; KYW, Chicago, and WGY, Schenectady. **SKYSCRAPER** (Ealing): (1) WBBM, Chicago; (2) WHAM, Rochester (N.Y.); (3) possibly WOAI, San Antonio (Texas); (4) cannot trace. **S. C. W.** (Little Irchester): (1) WPG, Atlantic City; (2) WTIC, Hartford, and WTAM, Cleveland, taking same programme. **SABE USTED** (Newcastle-on-Tyne): New transmitter at Wilno testing. **TRUSCOTT** (C. Iswick): Possibly WTAM, Cleveland, or WTIC, Hartford. **WAIKIK** (Malifax): WTIC, Hartford. **RED SEA ROVER** (Gravensend): Cannot

confirm Tiflis, as programmes are not available; more probably Vienna testing. **SHORT WAVER** (Brussels): Possibly W2XO, Schenectady (N.Y.), on 23.35 m. **BIRDIE** (Oxford): Tallinn: relay of service. **YOWLER** (Wirral): WGY, Schenectady. **MOLLY** (Faversham): Regret, cannot trace. **WIGAN RADIO** (Wigan): Wilno testing. **PSYCHE** (Lancaster): WNC, Louisville (N.J.), on 22.4 m. **J. R. S.** (Glasgow): Beromünster (Switzerland) broadcasting Berne programme. **HAMMY GOVAN** (Glasgow): WTAM, Cleveland. **ASKED OUT** (Newcastle-on-Tyne): Wilno testing. **VEERE** (S.W.11): (1) WTIC, Hartford; (2) WPG, Atlantic City; (3) WJZ, Boundbrook. **LEWISMAN** (Stornoway): Please number your queries. (1) Strasbourg; announcements in French and German; (2) Huizen transmitter. **I. J. R. B.** (Bexhill-on-Sea): Nice-Juan-les-Pins. The transmissions are well heard on South Coast. **COSMO** (East Finley): There are many U.S.A. stations on a wavelength around 200 metres; possibly KGA, Spokane, Washington, on 204 m. (1,470 kc/s.). **NOBBIE** (Hastings): Sottens relaying opera *Rigoletto* from either Geneva or Lausanne; this was not stated in programmes. **CURIOS** (Guildford): Regret, cannot trace; there is no European station on a wavelength between Brno and Strasbourg. **DITES MOI** (St. Neots): Riga; Good Friday concert. **NAN** (Maldon): Radio Toulouse. **THREE** (Hants): Radio Strasbourg; studio clock and gimes. **NINAC** (Cardiff): WTIC, Hartford; Maurice Chevalier in person. **SNOOK** (Montrose): WBZ, Springfield, or KDKA, East Pittsburgh; (2) Regret, cannot trace; wavelength appears to be wrong. **NOSBOR** (South Shields): There are no broadcasting stations on that wavelength; no doubt, an amateur transmitter. **Q. E. D.** (Formby): (a) Heilsberg relaying Berlin; (b) Brussels No. 2. **Flemish announcements.** **GAN-CAN** (Chorlton-cum-Hardy): Lyons PIT; own concert. **FIDDLEKID** (Derby): **TEA POT** (Bilston): Possibly a test by Brno; a gramophone record. **SULIS** (Beaworthy): Frankfurt. **DAPPY** (Southampton): Wilno testing. **BM/BRBB** (Finchley): Apparently, a test by Wilno **SOLO** (Hanley): WHAM, Rochester (N.Y.). **PALATINATE** (Preston): Radio Strasbourg; gramophone records. French and German announcements. **W. T.** (Haxey): Regret, cannot trace; some indication of wavelength must be given. **HOPEFUL** (Kirkcaldy): WLW, Cincinnati. **WAVERLEYITE** (Hull): (1) WCAU, Philadelphia; (2) WPG, Atlantic City; (3) WTIC, Hartford; (4) WHAM, Rochester (N.Y.); (5) regret, cannot trace; (6) WBZ, Springfield; (7) WABC, New York; (8) WENR, Chicago; (9) possibly, KPO, San Francisco; (10) WGY, Schenectady; (11) WSB, Atlanta; (12) WOAI, San Antonio (Texas); (13) WEAJ, New York. **THANK YOU** (Wembley): Regret, cannot trace; (112) possibly CT1AA, Lisbon, but cannot confirm. **C. H. W.** (Gravelly Hill): WOWO, Fort Wayne (Ind.), or WCAU, NIGHTBIRD (Asford). (1) WTIC, Hartford, relaying WEAJ, New York; (2) WTAM, Cleveland, and KMOX, St. Louis. **J. M. H.** (Edegham): Warsaw relaying choral concert from Lvov. **HAWES** (King's Lynn): WHAM, Rochester (N.Y.). **SNUFF-MILL** (Nottingham): (1) WJZ, Boundbrook; (2) WBZ, Springfield. **SACHARISSA** (Hendon): Regret, cannot trace. **GREEN LINE** (Caterham Valley): Brussels No. 1. Call: "Ici Bruxelles, emission d'essai" (test broadcast). **ANXIOUS** (Gorton): Tallinn; relay of service. **PIPALORUM** (Oakham): Please number your queries. (1) Horby, relaying Stockholm; (2) apparently, harmonic of Midland Regional; (3) Leipzig. **WER-EAG** (N.W.3): There is no Dutch station on a wavelength between 750 and 850 m., but possibly you may have picked up an harmonic of Huizen (1,875 m.); it would tally with the details of the programme.

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The Alternative Postal Service

In addition to the free service of "Which Station was That?" printed in these columns, replies to queries 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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5. Language.
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7. Details of programme or signal received.
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Schedule of Advance Programmes

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For the benefit of traders who may wish to make arrangements for demonstrating we are printing each week a schedule of the programmes to be transmitted by the National, London Regional, and Midland Regional stations. It will be noticed that these schedules concern programmes to be transmitted a fortnight hence, and it is felt that they will also be of particular service to those of our readers living abroad who will be able to use them in connexion with the reception of the Experimental Short Wave Station, G5SW, which relays the National (5XX) programme from 7 p.m.

SUNDAY, MAY 3

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
AFTERNOON	Church Cantata Military Band	Light Music Pianoforte Recital	Violin Recital Studio Orchestra
EVENING PROGRAMME	Hotel Orchestra	Orchestral Concert	As London Regional

MONDAY, MAY 4

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Studio Concert	Gramophone Records	As London Regional
AFTERNOON	Orchestral Concert Gramophone Records Restaurant Music	Restaurant Music As Midland Regional	As London Regional Cinema Orchestra
FIRST EVENING PROGRAMME	Talks Vaudeville	Light Music French Talk	Band Concert As London Regional
SECOND EVENING PROGRAMME	Opera Relay from Covent Garden Dance Music	Pianoforte Recital Orchestral Concert Dance Music	Sketch As London Regional As London Regional (till 11.15 p.m.)

TUESDAY, MAY 5

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Cinema Organ	Instrumental Concert	As London Regional
AFTERNOON	Restaurant Music Talks Cinema Orchestra	As Midland Regional As Midland Regional	Cinema Organ Studio Orchestra
FIRST EVENING PROGRAMME	Talks Orchestral Concert	Band Concert Opera Relay	Studio Orchestra As London Regional
SECOND EVENING PROGRAMME	Revue Dance Music	Opera Relay (contd.) Dance Music	As London Regional

WEDNESDAY, MAY 6

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Gramophone Records Organ Recital	Organ Recital As Midland Regional	As London Regional Studio Orchestra
AFTERNOON	Restaurant Music Talks Symphony Concert	Gramophone Records Studio Concert	As London Regional As London Regional
FIRST EVENING PROGRAMME	Talks Symphony Concert	Light Music German Talk	Military Band As London Regional
SECOND EVENING PROGRAMME	Symphony Concert (Part II) Dance Music	Revue Studio Concert Dance Music	As London Regional Organ Recital

THURSDAY, MAY 7

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Cinema Organ	As Midland Regional	Ballad Concert
AFTERNOON	Studio Concert Abbey Evensong Restaurant Music	Cinema Orchestra As Midland Regional	As London Regional Studio Orchestra
FIRST EVENING PROGRAMME	Talks Song Recital	Light Music Play	Studio Orchestra As London Regional
SECOND EVENING PROGRAMME	Chamber Music Dance Music	Vaudeville Dance Music	As London Regional

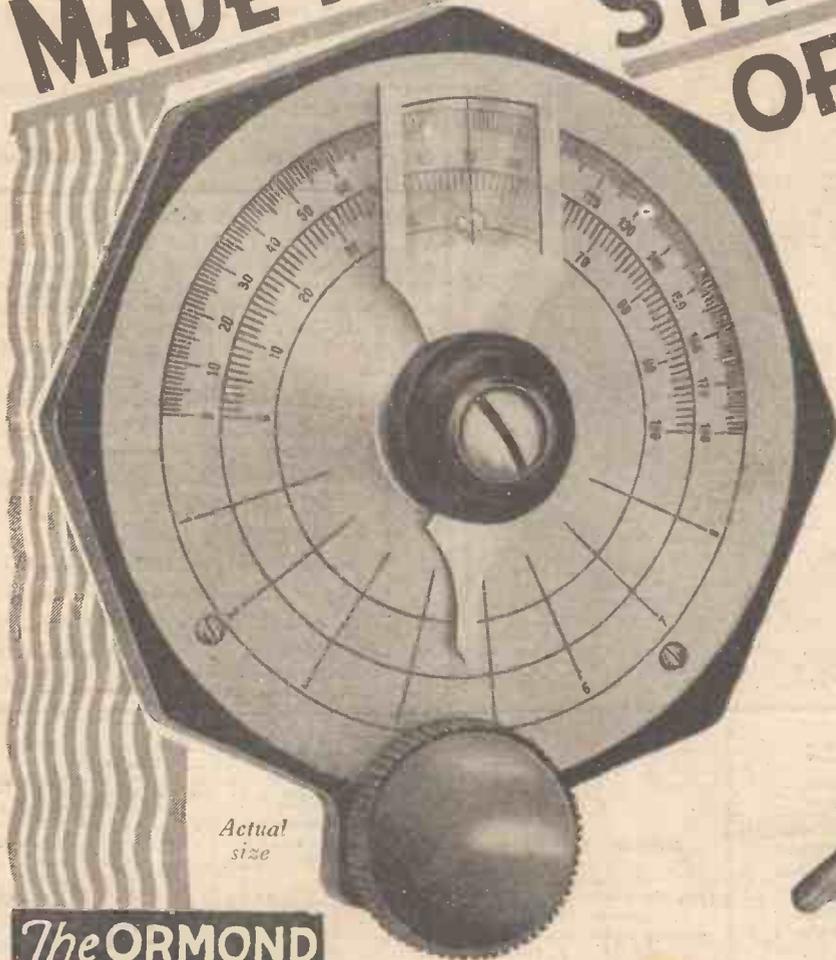
FRIDAY, MAY 8

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Ballad Concert Organ Recital	Gramophone Records	As London Regional
AFTERNOON	Gramophone Records Restaurant Music	As Midland Regional As Midland Regional	Studio Orchestra Studio Orchestra
FIRST EVENING PROGRAMME	Talks Play	Dance Music Light Music	As London Regional Music Festival Relay
SECOND EVENING PROGRAMME	Military Band Dance Music	Contemporary Music Dance Music	Studio Orchestra As London Regional (till 11 p.m.)

SATURDAY, MAY 9

	NATIONAL	LONDON REGIONAL	MIDLAND REGIONAL
MORNING	Cinema Orchestra	As National	Dance Music
AFTERNOON	Orchestral Concert Cinema Organ	As National As National	Cinema Organ
FIRST EVENING PROGRAMME	Talks Vaudeville	Students' Songs Military Band	As London Regional Studio Orchestra
SECOND EVENING PROGRAMME	Orchestral Concert Dance Music	Chamber Music Dance Music	Revue As London Regional (till 10.45 p.m.)

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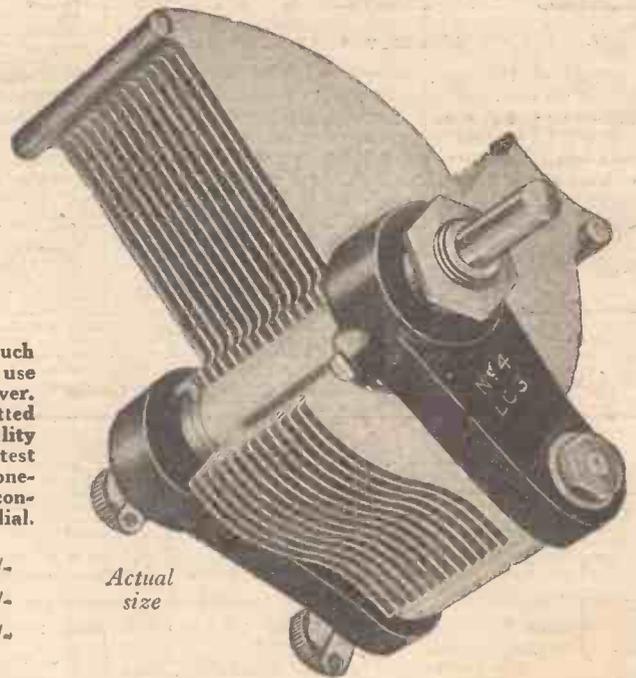


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(Daventry)

NATIONAL PROGRAMME

193 kc/s (1,554.4 metres) (35 kW.)

(April 19-25)

SUNDAY (APRIL 19)

10.30-10.45 a.m.—Time Signal (Greenwich); Shipping Forecast. Time Signal, Greenwich, at 3.0 p.m. 3.0 p.m.—Church Cantata (No. 104) Bach. Du Hirtz Israel (O Lord of Israel). Singers: Edward Reach (Tenor); Stuart Robertson (Bass). The Wireless Chorus. Players: Leslie Woodgate (Organ), Berkeley Mason (Harpisichord), The B.B.C. Orchestra (Oboes, Bassoon, Strings), conducted by Stanford Robinson. 3.45 p.m.—For the Children. 4.0 p.m.—Missionary Talk. India Re-visited. By the Rev. William Paton, Secretary of the International Missionary Council. 4.15 p.m.—The Wireless Military Band. Conductor, B. Walton O'Donnell. Heddle Nash (Tenor). 5.30 p.m.—A Pianoforte Recital by Cyril Smith. 6.0-6.15 p.m.—Bible Reading. 6.30 p.m.—Gwasanaeth Cymraeg O. Eglwys Gynulleidfaol Capel Als, Llanelli (Capel Als Congregational Church, Llanelly). 8.0 p.m.—A Religious Service from Govan Parish Church, Glasgow. 8.45 p.m.—The Week's Good Cause. Appeal on behalf of the Church of England Council of Empire Settlement, by Brigadier-General Sir Wyndham Deedes, C.M.G., D.S.O. 8.50 p.m.—The News. Weather Forecast, General News Bulletin; Shipping Forecast. Time Signal, Greenwich, at 9.0 p.m. 9.5 p.m.—The Victor Olof Sextet. Eric Marshall (Baritone); Dorothy Bennett (Soprano). 10.30 p.m.—Epilogue.

MONDAY (20)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—The Day's Work in Other Lands—XV. "A Siamese Fisherman," by Mr. A. E. Cardew. 12 noon.—Organ Recital by Edgar T. Cook. Victor Harding (Baritone). Time Signal, Greenwich, at 1.0 p.m. 1.15 p.m.—An Orchestral Concert. A Programme of Music by British Composers. National Orchestra of Wales (Leader, Louis Levitus), conducted by Warwick Braithwaite. 2.0-2.30 p.m.—Gramophone Records. 4.0 p.m.—Light Music. Moschetto and his Orchestra. Time Signal, Greenwich, at 4.45 p.m. 5.15 p.m.—The Children's Hour. 6.0 p.m.—Mrs. Ruxton: "Travelling in France." 6.15 p.m.—"The First News." Time Signal, Greenwich, at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach Organ Preludes and Fugues, played by Dr. George Thalben Ball. 7.0-7.20 p.m.—"New Books." Miss V. Sackville-West. 7.25 p.m.—"Galsworthy's Forsytes—III." Mr. David Hardman: "Awakening and To Let." 7.45 p.m.—Vaudeville. Jeanne de Casalis and Colin Clive in a new Mrs. Feather episode, "Mrs. Feather's Fire." Vivienne Chatrton. Lewis Shaw reading passages from the new novel, "Awful Flaming Passion." Mr. Gillie Potter. Jean Melville and Billy Thorburn will play on two pianofortes throughout the programme. "The Decadence of Terpsichore," a travesty composed by Charles Renard and written in rhyme by

FRIDAY (24)

10.15 a.m. (London).—The Daily Service. 10.30 p.m. (London).—Daventry National Programme. 11.0-11.30 a.m. (London).—Experimental Television Transmission by

James Laver. Time Signal, Greenwich, at 9.0 p.m. 9.0 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.15 p.m.—Shipping Forecast; New York Stock Market Report. 9.20 p.m.—Talk. 9.40 p.m.—Chamber Music. Clifford Curzon (Pianoforte). The Virtuoso String Quartet: Marjorie Hayward (Violin), Edwin Virgo (Violin), Raymond Jeremy (Viola), Cedric Sharpe (Violoncello). 11.0-12.0 p.m.—Dance Music. Time Signal, Greenwich, at 11.30 p.m.

TUESDAY (21)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"What is Good Food?"—V. Miss E. M. Hume: "Economic Housekeeping for Mothers." Housewives' News. 12 noon.—Edward O'Henry at the Organ. Time Signal, Greenwich, at 1.0 p.m. 1.0 p.m.—Light Music. Leonardo Kemp and his Piccadilly Hotel Orchestra. 1.55 p.m.—Experimental Transmission for the Radio Research Board by the Fultograph Process. 2.5-2.30 p.m.—Gramophone Records. 4.0 p.m.—A Sonata Recital. Margot Macgibbon (Violin). Frederic Jackson (Pianoforte). 4.30 p.m.—The Prince of Wales Cinema Orchestra, conducted by Frank Westfield. Time Signal, Greenwich, at 4.45 p.m. 5.15 p.m.—The Children's Hour. 6.0 p.m.—Mr. Frank Prewett: "Country Life." 6.15 p.m.—"The First News." Time Signal, Greenwich at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach Organ Preludes and Fugues. Played by Dr. George Thalben Ball. 7.0-7.20 p.m.—"Plays and the Theatre." Mr. James Agate. 7.25 p.m.—"Our Food from the Sea"—III. Professor A. C. Hardy, F.L.S.: "The Basic Life of the Sea." 7.45 p.m.—The Gershom Parkington Quintet: Silvio Sideli (Baritone). Gaby Valle (Soprano). 8.0-8.30 p.m.—Professor William McDougall, F.R.S.: "Love and Hate: A Study of the Energies of Men and Nations"—III. Concert continued. Time Signal, Greenwich, at 9.0 p.m. 9.0 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.15 p.m.—Shipping Forecast; New York Stock Market Report. 9.20 p.m.—"The Progress of Music"—III. Dr. G. Dyson: Heinrich Schütz. 9.40 p.m.—"River Side-Lights." (An Up-River Romp.) Written, Composed and Produced by Ernest Longstaffe. Additional Songs by various Authors and Composers. Cast: Leonard Henry, Wynne Ajello, Jean Allistone, Foster Richardson, Philip Wade, Billy Scott-Coomber. The Revue Chorus and Orchestra, conducted by Ernest Longstaffe. 10.40 p.m.—Dance Music. Clive Erard and his Band. 11.0-12 midnight.—Howard Jacobs and his Orchestra from The Savoy Hotel. Time Signal, Greenwich, at 11.30 p.m.

WEDNESDAY (22)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"Children's Toys and Games"—II, Mrs. Susan Isaacs. 12 noon.—Reginald Foort at the Organ. Time Signal, Greenwich, at 1.0 p.m. 1.0 p.m.—A Concert. The Rita Sharpe Players. 2.0-2.50 p.m.—Speeches at the Shakespeare Birthday Celebration relayed from the Town Hall, Stratford-upon-Avon. The Immortal Memory, Mr. John Drinkwater. The Drama, proposed by Sir Nigel Playfair. Replied to by Miss Lilian Braithwaite. The Guests, the Mayor of Stratford-upon-Avon (Councillor R. M. Smith). 3.0 p.m.—Evensong from Westminster Abbey.

THURSDAY (23)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"Children's Toys and Games"—II, Mrs. Susan Isaacs. 12 noon.—Reginald Foort at the Organ. Time Signal, Greenwich, at 1.0 p.m. 1.0 p.m.—A Concert. The Rita Sharpe Players. 2.0-2.50 p.m.—Speeches at the Shakespeare Birthday Celebration relayed from the Town Hall, Stratford-upon-Avon. The Immortal Memory, Mr. John Drinkwater. The Drama, proposed by Sir Nigel Playfair. Replied to by Miss Lilian Braithwaite. The Guests, the Mayor of Stratford-upon-Avon (Councillor R. M. Smith). 3.0 p.m.—Evensong from Westminster Abbey.

the Baird Process (356.3 m. Vision; 261.3 m. Sound). 12 noon.—Gramophone Records. 1.0 p.m.—The Midland Studio Orchestra, directed by Frank Cantell. Nara Savage (Soprano). 2.15-3.0 p.m.—The Regal Orchestra, conducted by Ernest Parsons, from The Regal Cinema, Handsworth, Birmingham. 4.0 p.m. (London).—Daventry National Programme. 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra. 5.15 p.m. (Midland).—Children's Hour. 6.0 p.m. (Midland).—As London. 6.15 p.m.—"The First News." 6.40 p.m. (London).—Fred Adlington's New Octet. Arthur Hosking (Baritone). Winifred Fisher (Soprano).

10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"The Week in Westminster." Mr. R. A. Butler, M.P. 12 noon.—Gramophone Records. 12.45 p.m.—Organ Recital by Walter S. Vale. Time Signal, Greenwich, at 1.0 p.m. 1.30-2.30 p.m.—Light Music. Frascatti's Orchestra, directed by Georges Haeck. 3.30 p.m.—The Bournemouth Symphony Orchestra, conductor, Sir Dan Godfrey. Mannucci (Violoncello). Mannucci and Orchestra: Violoncello Concerto in B Minor (Op. 104) (Dvorak). Orchestra: Symphony (No. 6) in C Minor (Glazounov). Time Signal, Greenwich, at 4.45 p.m. 4.45 p.m.—Reginald New at the Organ. 5.15 p.m.—The Children's Hour. 6.0 p.m.—London Regional Programme. 6.15 p.m.—"The First News." Time Signal, Greenwich, at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach Organ Preludes and Fugues, played by Dr. George Thalben Ball. 7.0-7.20 p.m.—Talks on Business—VII. Mr. A. P. L. Gordon. 7.25 p.m.—Major F. Yeats-Brown: "Gods, Saints, and Heroes of Hindustan—III. The White Splendour of the Moghuls." 7.45 p.m.—Interval. 8.0 p.m.—B.B.C. Symphony—XXI. Israel in Egypt (Handel). Stiles Allen (Soprano); Isobel Baillie (Soprano); Margaret Halfour (Contralto); Frank Titterton (Tenor); The National Chorus (Chorus Master, Stanford Robinson); The B.B.C. Symphony Orchestra (Leader, Arthur Catterall); Berkeley Mason (Organ). Conducted by Sir Henry Wood. Time Signal, Greenwich, at 9.0 p.m. 9.5 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.20 p.m.—B.B.C. Symphony Concert (Continued). 10.15 p.m.—"The Development of Broadcasting—III." Mr. Arthur R. Burrows, Secretary-General of the Union Internationale de Radio-diffusion; International Broadcasting. 10.20 p.m.—Shipping Forecast; New York Stock Market Report. 10.25 p.m.—The Carlton Mason Sextet. 11.0 p.m.—12 midnight.—Dance Music. Time Signal, Greenwich, at 11.30 p.m.

10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"The Week in Westminster." Mr. R. A. Butler, M.P. 12 noon.—Gramophone Records. 12.45 p.m.—Organ Recital by Walter S. Vale. Time Signal, Greenwich, at 1.0 p.m. 1.30-2.30 p.m.—Light Music. Frascatti's Orchestra, directed by Georges Haeck. 3.30 p.m.—The Bournemouth Symphony Orchestra, conductor, Sir Dan Godfrey. Mannucci (Violoncello). Mannucci and Orchestra: Violoncello Concerto in B Minor (Op. 104) (Dvorak). Orchestra: Symphony (No. 6) in C Minor (Glazounov). Time Signal, Greenwich, at 4.45 p.m. 4.45 p.m.—Reginald New at the Organ. 5.15 p.m.—The Children's Hour. 6.0 p.m.—London Regional Programme. 6.15 p.m.—"The First News." Time Signal, Greenwich, at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach Organ Preludes and Fugues, played by Dr. George Thalben Ball. 7.0-7.20 p.m.—Talks on Business—VII. Mr. A. P. L. Gordon. 7.25 p.m.—Major F. Yeats-Brown: "Gods, Saints, and Heroes of Hindustan—III. The White Splendour of the Moghuls." 7.45 p.m.—Interval. 8.0 p.m.—B.B.C. Symphony—XXI. Israel in Egypt (Handel). Stiles Allen (Soprano); Isobel Baillie (Soprano); Margaret Halfour (Contralto); Frank Titterton (Tenor); The National Chorus (Chorus Master, Stanford Robinson); The B.B.C. Symphony Orchestra (Leader, Arthur Catterall); Berkeley Mason (Organ). Conducted by Sir Henry Wood. Time Signal, Greenwich, at 9.0 p.m. 9.5 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.20 p.m.—B.B.C. Symphony Concert (Continued). 10.15 p.m.—"The Development of Broadcasting—III." Mr. Arthur R. Burrows, Secretary-General of the Union Internationale de Radio-diffusion; International Broadcasting. 10.20 p.m.—Shipping Forecast; New York Stock Market Report. 10.25 p.m.—The Carlton Mason Sextet. 11.0 p.m.—12 midnight.—Dance Music. Time Signal, Greenwich, at 11.30 p.m.

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3.45 p.m.—Jack Payne and his B.B.C. Dance Orchestra. 4.30 p.m.—Light Music. The Grosvenor House Orchestra, Directed by Joseph Meeus. Time Signal, Greenwich, at 4.45 p.m. 5.15 p.m.—The Children's Hour. 6.0 p.m.—London Regional Programme. 6.15 p.m.—"The First News." Time Signal, Greenwich, at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach Organ Preludes and Fugues, played by Dr. George Thalben Ball. 7.0-7.20 p.m.—"New Novels." Mr. Michael Sadler. 7.25 p.m.—"The World and Ourselves"—III, Sweden. A Descriptive Talk by Mr. Frederic Whyte. 7.45 p.m.—"Will Shakespeare," by Clemence Dane. Specially adapted for the Microphone by the Author. The Play produced by Val Gielgud. The Music by Thomas Wood. The Gershom Parkington Augmented Orchestra and the Wireless Chorus, under the direction of Robert Chignell. Time Signal, Greenwich, at 9.0 p.m. 9.40 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.55 p.m.—Shipping Forecast; New York Stock Market Report. 10.0 p.m.—"The Way of the World." Mr. Vernon Bartlett. 10.15 p.m.—A Violin Recital by Arthur Catterall. 10.45 p.m.—12 midnight.—Dance Music. Jack Payne and his B.B.C. Dance Orchestra. Time Signal, Greenwich, at 11.30 p.m. 12 midnight.—12.5 a.m. (Friday).—Experimental Transmission for the Radio Research Board by the Fultograph Process.

FRIDAY (24)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"Stories of Great Invalids"—VII. Mrs. Mary MacCarthy. 12 noon.—A Recital of Music for Two Pianofortes by the Peppin Twins. 12.30 p.m.—Organ Recital by J. Edgar Humphreys. Geoffrey Hoather (Baritone). Time Signal, Greenwich, at 1.0 p.m. 1.30-2.30 p.m.—Gramophone Records. 4.0 p.m.—Moschetto and his Orchestra, from the May Fair Hotel. Time Signal, Greenwich, at 4.45 p.m. 5.15 p.m.—The Children's Hour. 6.0 p.m.—Mr. Compton Mackenzie: "The Charm of Favourites." 6.15 p.m.—"The First News." Time Signal, Greenwich, at 6.30 p.m. 6.40 p.m.—The Foundations of Music. Bach's Organ Preludes and Fugues, played by Dr. George Thalben Ball. 7.0-7.20 p.m.—The B.B.C. Music Critic, Mr. Ernest Newman. 7.25 p.m.—"India: The Background"—III. "The Growth and Operation of the British Raj." Sir Harcourt Butler, G.C.S.I., G.C.I.E. 7.45 p.m.—Vaudeville. Compered by Two Pairs: Claude Hulbert, Enid Trevor; Paul England, Pat Paterson. 1. Harold Scott, Songs at the Piano (from "The Chelsea Follies," by kind permission of R. H. Gillespie and Archie de Bear). 2. Roy Fox, the Whispering Commetist, with Wyn Richmond, Light Songs and Impressions, and Norman Hackforth at the Piano. 3. Jack Payne and his B.B.C. Dance Orchestra. 4.

10.15 a.m. (London).—The Daily Service. 10.30-11.0 a.m. (London).—Daventry National Programme. 1.0-2.0 p.m. (London).—Daventry National Programme. 2.30 p.m.—Daventry National Programme. 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra. 5.15 p.m. (Midland).—Children's Hour. 6.0 p.m. (Midland).—As London. 6.15 p.m.—"The First News." 6.40 p.m.—Sports Bulletin. 6.45 p.m. (London).—The Theodore Gutter Trio. Ernest Hargreaves (Tenor), Elsie Otley (Soprano). 6.45 p.m. (Midland).—The Midland Studio Orchestra, directed by

Frank Cantell. George Dawkins (Baritone). James Donovan (Saxophone). 8.0 p.m.—"River Side-Lights" (an Up-River Romp). Written, composed and Produced by Ernest Longstaffe. Additional Songs by various Authors and Composers. 9.0 p.m.—Chamber Music. The International String Quartet and The Stratton String Quartet. 10.15 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 10.30 p.m.—Regional News. 10.35-10.40 p.m. (Midland).—Experimental Transmission for the Radio Research Board by the Fultograph Process. 10.35 p.m.—12 midnight (London).—Dance Music. Ambrose's Band, from The May Fair Hotel.

Alexander and Mose, "Dark Subjects." 8.55 p.m.—The Weekly Theatrical Cartoon: Henry Ainley. 9.0 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.15 p.m.—Shipping Forecast; New York Stock Market. 9.20 p.m.—"People and Things." The Hon. Harold Nicolson. 9.35 p.m.—An English and Spanish Programme. Olga Lynn (Soprano). Lionel Tertis (Viola). The B.B.C. Orchestra, conducted by Pedro Morales. Overture, Cockaigne (Elgar). Lionel Tertis and Orchestra: Romanze (Suite for Viola and Orchestra) (B. J. Dale) (First broadcast performance). Orchestra: Passacaglia, No. 1 (Cyril Scott) (First broadcast performance). Una Aventura de Don Quijote (An Adventure of Don Quixote) (Guridi) (First performance in London). Ballet, The Three-Cornered Hat (de Falla) (First broadcast performance). A Voice: Olga Lynn. 11.0 p.m.—12 midnight.—Dance Music from the Café de Paris. Time Signal, Greenwich, at 11.30 p.m.

SATURDAY (25)

10.15 a.m.—The Daily Service. 10.30 a.m.—Time Signal (Greenwich), Shipping Forecast. 10.45-11.0 a.m.—"British Honey in the Making"—II. The Rev. Tucker Edwards: "Practice." Time Signal, Greenwich, at 1.0 p.m. 1.0-2.0 p.m.—The Commodore Grand Orchestra, under the direction of Joseph Muscant. 2.30 p.m.—The Football Association Cup Final. Birmingham v. West Bromwich Albion. Community Singing. Conducted by Mr. T. J. Ratcliff. Accompanied by The Band of H.M. Welsh Guards. 2.45 p.m.—A Running Commentary on the Final by George F. Allison. Relayed from The Empire Stadium, Wembley. Time Signal, Greenwich, at 4.45 p.m. 4.45 p.m.—Reginald Foort at The Organ. 5.15 p.m.—The Children's Hour. 6.0 p.m.—Interlude. 6.15-6.40 p.m.—"The First News." Time Signal, Greenwich at 6.30 p.m. 6.45 p.m.—The Foundations of Music. Bach's Organ Preludes and Fugues. Played by Dr. George Thalben-Ball. 7.0 p.m.—"The Month in Wales." Miss Megan Lloyd George, M.P. 7.20 p.m.—This Week's Work in the Garden by the Royal Horticultural Society. 7.30 p.m.—The Wireless Military Band. Conductor, B. Walton O'Donnell. Helen Alston (Mezzo-Soprano). Roy Henderson (Baritone). Time Signal, Greenwich, at 9.0 p.m. 9.0 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 9.15 p.m.—Shipping Forecast. 9.20 p.m.—"Gallipoli." A Discussion between General Sir Ian Hamilton, G.C.M.G., D.S.O., and Mr. Compton Mackenzie. 9.50 p.m.—The B.B.C. Orchestra, conducted by Stanford Robinson. Waltz, Morgenblätter (Morning Leaves) (Johann Strauss). Petite (Little) Suite (Debussy). Scherzo (Lalo). Suite of Modern Dances (Stanford Robinson). 10.45-12.0 p.m.—Dance Music. Ambrose's Band, from The May Fair Hotel. Time Signal, Greenwich, at 11.30 p.m.

10.15 a.m. (London).—The Daily Service. 10.30-11.0 a.m. (London).—Daventry National Programme. 1.0-2.0 p.m. (London).—Daventry National Programme. 2.30 p.m.—Daventry National Programme. 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra. 5.15 p.m. (Midland).—Children's Hour. 6.0 p.m. (Midland).—As London. 6.15 p.m.—"The First News." 6.40 p.m.—Sports Bulletin. 6.45 p.m. (London).—The Theodore Gutter Trio. Ernest Hargreaves (Tenor), Elsie Otley (Soprano). 6.45 p.m. (Midland).—The Midland Studio Orchestra, directed by

Frank Cantell. George Dawkins (Baritone). James Donovan (Saxophone). 8.0 p.m.—"River Side-Lights" (an Up-River Romp). Written, composed and Produced by Ernest Longstaffe. Additional Songs by various Authors and Composers. 9.0 p.m.—Chamber Music. The International String Quartet and The Stratton String Quartet. 10.15 p.m.—"The Second News." Weather Forecast, Second General News Bulletin. 10.30 p.m.—Regional News. 10.35-10.40 p.m. (Midland).—Experimental Transmission for the Radio Research Board by the Fultograph Process. 10.35 p.m.—12 midnight (London).—Dance Music. Ambrose's Band, from The May Fair Hotel.

(London)

842 kc/s (356.3 m.)
(70 kW.)

REGIONAL PROGRAMMES

(April 19-25)

(Midland)

752 kc/s (398.9 m.)
(38 kW.)

SUNDAY (APRIL 19)

- 3.0 p.m. (London).—The Gershwin Parkington Quintet. Eric Greene (Tenor). Olive Kavann (Contralto).
- 3.0 p.m. (Midland).—A Recital by Robert Maitland (Baritone).
- 3.30 p.m. (Midland).—Organ and Pianoforte Recital. Bernard Johnson (Organ). Helen Guest (Pianoforte).
- 4.15 p.m. (London).—Violin Recital by Daisy Kennedy.
- 4.15 p.m. (Midland).—The Midland Studio Orchestra, directed by Frank Cantell.
- 5.0—5.30 p.m.—Mr. T. S. Elliott: "John Dryden"—II, "The Dramatist."
- 8.0 p.m. (London).—A Religious Service from the Chapel of the Royal Military School of Music, Kneller Hall, Twickenham.
- 8.0 p.m. (Midland).—A Religious Service, conducted by the Rev. F. H. Benson (Chairman of Birmingham District Wesleyan Methodist Church).
- 8.45 p.m.—Daventry National Programme.
- 8.50 p.m.—"The News." Weather Forecast and General News Bulletin.
- 9.0 p.m.—Regional News.
- 9.5 p.m.—The B.B.C. Orchestra (Leader, Arthur Catterall), conducted by Albert Coates: Suite, Legend of the Tsar Saltan (Rimsky-Korsakov). Eileen Joyce (Pianoforte): Pianoforte Concerto in B Flat (K.595) (Mozar). Orchestra: Kancelot Symphony (Albert Coates).
- 10.30 p.m.—Epilogue.

MONDAY (20)

- 10.15 a.m. (London).—The Daily Service.
- 10.30 a.m. (London).—Daventry National Programme.
- 11.0—11.30 a.m. (London).—Experimental Television Transmission by the Baird Process (356.3 m. Vision; 261.3 m. Sound).

- 12 noon.—A Light Classical Concert. Dorothy Donaldson (Mezzo-Soprano). The Rene Cook Trio.
- 1.15 p.m.—Leonardo Kemp and his Piccadilly Hotel Orchestra.
- 2.0—3.0 p.m.—The Regal Orchestra, conducted by Ernest Parsons. From the Regal Cinema, Handsworth, Birmingham.
- 4.0 p.m. (London).—Daventry National Programme.
- 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra.
- 5.15 p.m. (Midland).—Children's Hour.
- 6.0 p.m. (Midland).—As London.
- 6.15 p.m.—"The First News."
- 6.40 p.m. (London).—The Leslie Bridgewater Quintet. Leonard Ashdowne (Baritone). Vivien Lambelet (Soprano).
- 6.40 p.m. (Midland).—"Come, Pipe a Song." The Midland Studio Chorus. Under the direction of Nigel Dallaway.
- 7.15 p.m. (Midland).—Dance Music. Marius B. Winter and his Band.
- 8.0 p.m.—Monsieur E. M. Stéphan: French Talk.
- 8.30 p.m.—Regional News.
- 8.35 p.m. (London).—An Orchestral Concert. The B.B.C. Orchestra, conducted by B. Walton O'Donnell. Betty Bannerman (Contralto).
- 8.35 p.m. (Midland).—A Military Band Programme. The City of Birmingham Police Band, conducted by Richard Wassell. Bernard Sims (Baritone).
- 9.45 p.m.—Jack Payne and his B.B.C. Dance Orchestra.
- 10.15 p.m.—"The Second News." Weather Forecast, Second General News Bulletin.
- 10.30 p.m.—12 midnight (London).—Dance Music.
- 10.30—11.0 p.m. (Midland).—As London.

TUESDAY (21)

- 10.15 a.m. (London).—The Daily Service.
- 10.30 a.m. (London).—Daventry National Programme.

- 11.0—11.30 a.m. (London).—Experimental Television Transmission by the Baird Process (356.3 m. Vision; 261.3 m. Sound).
- 12 noon.—An Instrumental Concert. Nancy Phillips (Violin); Lilly Phillips (Violoncello); Hinda Phillips (Pianoforte).
- 1.0 p.m.—Reginald New at the Organ.
- 1.0—3.0 p.m.—The Midland Studio Orchestra, directed by Frank Cantell.
- 4.0 p.m. (London).—Daventry National Programme.
- 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra.
- 5.15 p.m. (Midland).—Children's Hour.
- 6.0 p.m. (Midland).—As London.
- 6.15 p.m.—"The First News."
- 6.40 p.m. (London).—A Brass Band Concert. The Tyldesley Temperance Prize Band, conducted by G. H. Parry. Edward B. Popple (Bass-Baritone).
- 6.40 p.m. (Midland).—The Midland Studio Orchestra, directed by Frank Cantell. Elsie Black (Contralto).
- 7.45 p.m.—Vaudeville.
- 8.0 p.m. (London).—Orchestral Concert. The B.B.C. Orchestra, conducted by Victor Hely-Hutchinson. Parry Jones (Tenor).
- 9.0 p.m. (Midland).—Organ Recital by Dr. Harold Rhodes.
- 9.35 p.m. (Midland).—Light Music from the Regal Cinema, Handsworth, Birmingham, conducted by Ernest Parsons.
- 10.15 p.m.—"The Second News." Weather Forecast, Second General News Bulletin.
- 10.30 p.m.—Regional News.
- 10.35 p.m.—12 midnight.—Dance Music.
- 12 midnight—12.30 a.m. (Wednesday) (London).—Experimental Television Transmission by the Baird Process (356.3 m. Vision; 261.3 m. Sound).

WEDNESDAY (22)

- 10.15 a.m. (London).—The Daily Service.

- 10.30 a.m. (London).—Daventry National Programme.
- 11.0—11.30 a.m. (London).—Experimental Television Transmission by the Baird Process (356.3 m. Vision; 261.3 m. Sound).
- 12 noon.—Quentin Maclean at the Organ.
- 12.45 p.m.—The Midland Studio Orchestra, directed by Frank Cantell.
- 1.45 p.m.—Gramophone Records.
- 2.15—3.0 p.m.—A Ballad Concert. Ethel Evans (Soprano); Geoffrey Denton (Baritone); Elizabeth Wray (Pianoforte).
- 3.30 p.m. (London).—Daventry National Programme.
- 5.15 p.m. (London).—Clive Erard and his Band.
- 5.15 p.m. (Midland).—Children's Hour.
- 6.0 p.m. (Midland).—As London.
- 6.15 p.m.—"The First News."
- 6.40 p.m. (London).—Reginald King and his Orchestra. Jack Robertson (Tenor); Joyce Newton (Mezzo-Soprano).
- 6.40 p.m. (Midland).—British Composers. The Midland Studio Orchestra, directed by Frank Cantell. Florence Chandler (Soprano); Mary Abbott (Pianoforte).
- 8.0 p.m.—Mr. Otto Siepmann: German Talk.
- 8.30 p.m.—Regional News.
- 8.35 p.m. (London).—Wireless Military Band, conducted by Charles Leggett. Norman Williams (Baritone).
- 8.35 p.m. (Midland).—A Violin Recital by Jan Berenska.
- 9.0 p.m. (Midland).—Dance Music. Marius B. Winter and his Band.
- 9.45 p.m.—Sea Shanties. Sir James Sexton.
- 10.15 p.m.—"The Second News." Weather Forecast, Second General News Bulletin.
- 10.30 p.m.—12 midnight (London).—Dance Music.
- 10.30 (Midland).—Experimental Transmission for the Radio Re-

search Board by the Fultograph Process.
10.35—11.0 p.m. (Midland).—London Regional Programme.

THURSDAY (23)

- 10.15 a.m. (London).—The Daily Service.
- 10.30 a.m. (London).—Daventry National Programme.
- 11.0—11.30 a.m. (London).—Experimental Television Transmission by the Baird Process (356.3 m. Vision; 261.3 m. Sound).
- 12 noon.—A Ballad Concert. David Tomlin (Baritone). Marjorie B. Bates (Pianoforte). Joan Margrett (Mezzo-Soprano). Norris Stanley (Violin). Horace Priestley (Tenor).
- 1.0 p.m.—The Shepherd's Bush Pavilion Orchestra, conducted by Louis Levy.
- 2.0—3.0 p.m.—The Midland Studio Orchestra, directed by Frank Cantell.
- 3.0 p.m. (London).—Daventry National Programme.
- 5.15 p.m. (London).—Jack Payne and his B.B.C. Dance Orchestra.
- 5.15 p.m. (Midland).—Children's Hour.
- 6.0 p.m. (Midland).—As London.
- 6.15 p.m.—"The First News."
- 6.40 p.m.—Musical Comedy Programme. Olive Groves (Soprano). Doris Owens (Contralto). Lance Fairfax (Baritone). The Wireless Chorus (Chorus Master, Stanford Robinson). The B.B.C. Orchestra, conducted by Joseph Lewis.
- 8.0 p.m. (London).—A Popular Recital. Elsa Karen (Pianoforte). The Wireless Singers.
- 8.0 p.m. (Midland).—A Band Programme. Bothwell Temperance Band, conducted by R. Sidebottom.
- 9.0 p.m. (London).—The Amateur Orchestra of London. Conductor, Wynn Reeves. Margaret Wilkinson (Soprano).

(Continued on page 617)

PROGRAMMES FOR SUNDAY

(April 19)

The Frequencies and Wavelengths given in the following programmes are those published by the stations in question. For more accurate measurements, readers are referred to our Table of Frequencies and Wavelengths.

NCTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

- ALGIERS (N. Africa)**
825.3 kc/s (363.4 m.); 13 kW.
12.30 p.m.—Dance Music.
12.45 p.m.—Song Recital.
1.0 p.m.—Sacred Music.
1.15 p.m.—Gramophone Records.
3.0 p.m.—Dance Music.
8.30 p.m.—Songs from Operettas and Operas.
- BARCELONA (Spain)**
Radio-Barcelona (EAJT). 860 kc/s (349 m.); 8 kW.
8.0—9.0 a.m.—Topical Review.
11.0 a.m.—Chimes and Weather.
1.0 p.m.—Sextet Selections and Gramophone Records.
3.0 p.m.—Programme for Hospitals and Benevolent Institutions, with Gramophone Records.
4.0—5.30 p.m.—Interval.
5.30 p.m.—Gramophone Records.
6.0 p.m.—Orchestral Music.
6.30 p.m.—Soprano Song Recital.
7.0 p.m.—Agricultural Talk in Catalan.
7.10 p.m.—Dance Music from the Ritz Hotel.
8.0 p.m.—Vocal and Orchestral Concert.
9.0 p.m. (approx.).—Close Down.
- BERLIN (Germany)**
Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW.
Transmits at intervals from 7.0 a.m. (Hamburg Relay).
11.0 a.m.—See Berlin (Witzleben).
11.30 a.m.—See Leipzig.
12 noon—6.30 p.m. See Berlin (Witzleben).
6.30 p.m.—Talk: Chance?
7.0 p.m.—Talk: A Two Days' Flight into the Land of the Arabian Nights.
7.20 p.m.—"Letters on the Way"—

- an Instructive Play (Albert Falkenberg).
- 8.0 p.m.—12.30 a.m. (Monday).—See Berlin (Witzleben).
- 12.30 a.m. (approx.).—Close Down.
- BERLIN (Germany)**
Witzleben. 716 kc/s (418 m.); 1.7 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics).
11.0 a.m.—Talk for Parents.
11.30 a.m.—See Leipzig.
12 noon.—Reading: "The Execution" (B. Travençolo).
- 12.30 p.m.—Orchestral Concert by Unemployed Musicians relayed from the High School for Music, Charlottenburg, Symphonic Poem No. 5: Prometheus (Liszt). Overture, "Benvenuto Cellini" (Berlioz). Symphonic Poem, Die Moldau (Smetana). Suite No. 3 for Orchestra Op. 55 (Tchaikovsky).
- 2.0 p.m.—Fairy Tales for Children.
- 2.30 p.m.—Concert by a Mandoline Orchestra.
- 3.20 p.m.—"Clairvoyance"—A Society Play (Georg Kaiser) by the Cast of the Renaissance Theatre.
- 4.45 p.m.—Topical Programme.
- 5.45 p.m.—Concert of Light Music.
- 7.50 p.m.—Sports Notes.
- 8.0 p.m.—Concert by the Berlin Philharmonic Orchestra, conducted by Wilhelm Furtwängler, relayed from the Philharmonie. Symphony in C Major (Schubert). Prélude à l'après-midi d'un faune (Debussy). Till Eulenspiegel's Merry Pranks (R. Strauss). Overture, "Tannhäuser" (Wagner).
- 8.50 p.m. (in the interval).—News and Sports Notes.
- 10.0 p.m.—Weather, News and Sports Notes.
- 10.15 p.m. (approx.).—Dance Music, with Vocal Refrains.
- 12.30 a.m. (Monday).—Close Down.
- BORDEAUX-LAFAYETTE (France)**
(PTT). 986 kc/s (304 m.); 35 kW.
12 noon.—Concert relayed from Paris

- (Ecole Supérieure), 671 kc/s (447.1 m.).
- 2.0 p.m.—Symphony Concert from the Hall of "Le Journal" or Relay of a Local Festival.
- 4.30 p.m.—Pasdeloup Symphony Concert relayed from the Théâtre des Champs Elysées, Paris.
- 6.20 p.m.—Sports Notes.
- 6.30 p.m.—Radio Journal.
- 8.15 p.m.—Results of the Prize Draw.
- 8.20 p.m.—Charades.
- 8.30 p.m.—"Le Député de Bonbignac"—Comedy in Three Acts (Bisson). After the Programme, Amusement Guide and Time Signal.
- BRATISLAVA (Czechoslovakia)**
1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 8.0 a.m.
- 12.5 p.m.—Orchestral Concert.
- 1.30 p.m.—See Prague.
- 2.0 p.m.—Agricultural Report.
- 4.0 p.m.—Orchestral Concert.
- 5.30 p.m.—Chess Corner.
- 5.45 p.m.—"Socrates' Wife"—Drama (Théodore de Banville).
- 6.40 p.m.—Gramophone Records.
- 7.0 p.m.—See Prague.
- 7.5 p.m.—Popular Airs and Songs.
- 8.0 p.m.—See Prague.
- 10.15 p.m.—Programme Announcements.
- 10.20 p.m.—See Prague.
- BRESLAU (Germany)**
923 kc/s (325 m.); 1.7 kW. Relay by Gleiwitz, 1,184 kc/s (253 m.).
Transmits at intervals from 8.0 a.m. (Gramophone Concert).
- 10.0 a.m.—Evangelical Service.
- 11.30 a.m.—See Leipzig.
- 12.30 p.m.—Concert by the Silesian Philharmonic Orchestra.
- 2.30 p.m.—Market Prices.
- 2.35 p.m.—Guessing Competition.
- 2.40 p.m.—Lesson in Chess.
- 2.55 p.m.—The Rhymed Unrhymed by Traugott Conrad.

- 3.10 p.m.—Talk on Taxation.
- 3.55 p.m.—Agricultural Talk.
- 3.40 p.m.—Programme for Children: Wireless Play.
- 4.10 p.m.—Championships of the Union of Breslau Skittles' Clubs, relayed from the Tivoli Skittles Alley.
- 4.40 p.m.—Orchestral Concert.
- 6.0 p.m.—Short Tales (Hans Kafka).
- 6.20 p.m.—Talk: Unemployment and the Industrial Crisis.
- 6.40 p.m.—Concert for Two Guitars.
- 7.0 p.m.—"Hallo! Willi Schaffers here!—Is that Breslau?"—Humorous Monthly Talk.
- 7.30 p.m.—Weather for Farmers.
- 7.35 p.m.—Little Pieces for Pianoforte.
- 7.50 p.m.—Reading: "Adam Urbas" (Jakob Wassermann).
- 8.30 p.m.—Weather Forecast.
- 8.35 p.m.—Orchestral Concert.
- 10.0 p.m.—Time, Weather, News, Sports Notes and Programme Announcements.
- 10.30 p.m.—Dance Music from Berlin (Witzleben).
- 12.30 a.m. (Monday).—Close Down.
- BRUSSELS (Belgium)**
Radio-Belgique. 590 kc/s (509 m.); 20 kW.
7.0 a.m. and Every Hour.—Homing Pigeon Reports.
5.0 p.m.—Orchestral Concert.
6.0 p.m.—Gramophone Records.
6.15 p.m.—Programme for Hospitals.
6.45 p.m.—Gramophone Records.
7.30 p.m.—Le Journal Parlé.
8.0 p.m.—Orchestral Concert, conducted by M. Quinet. Symphony in D Major (Brahms). Two Songs: (a) Quel rêve et quel divin transport (Liszt), (b) Two Songs from "The Marriage of Figaro" (Mozart). Les Eolides (César Franck). Monologues. Concert in B Minor for Violin and Orchestra (Saint-Saëns). Songs: (a) Pour-quoi rester seulette (Saint-Saëns), (b) Extase (Duparc), (c) Morning Star (Sokoloff). Petite Suite (Debussy).
- 10.0 p.m.—Le Journal Parlé.
- BRUSSELS No. 2 (Belgium)**
887 kc/s (338.2 m.); 20 kW.
Programme in Flemish.

- Transmits at intervals from 7.0 a.m. (Pigeon-Flying Report).
- 5.0 p.m.—Gramophone Records.
- 6.0 p.m.—Neapolitan Songs.
- 6.15 p.m.—Orchestral Concert. Symphony in G (Haydn). Ballet Music from "Le Cid" (Massenet).
- 6.45 p.m.—Gramophone Records.
- 7.30 p.m.—Le Journal Parlé.
- 7.55 p.m.—Music Review.
- 8.0 p.m.—Gramophone Records: "La Traviata"—Opera (Verdi). In the interval, Talk.
- 10.0 p.m.—Le Journal Parlé.
- BUDAPEST (Hungary)**
545 kc/s (550 m.); 23 kW.
8.0 a.m.—Press Review and Beauty Hints.
10.0 a.m.—Service from the University Church.
- 11.15 a.m.—Unitarian Service, followed by Orchestral Concert. In the interval, Wireless Review.
- 2.0 p.m.—Gramophone Records.
- 3.0 p.m.—Programme for Children.
- 3.30 p.m.—Agricultural Report.
- 4.0 p.m.—Choral Concert. In the interval, Talk.
- 5.15 p.m.—Military Band Concert.
- 6.30 p.m.—Talk: Parents and Children.
- 7.0 p.m.—Song Recital.
- 7.35 p.m.—Concert by a Tziganac Orchestra.
- 8.45 p.m.—A Tragedy (Jokai), followed by Dance Music from the Hotel St. Gellert.
- COLOGNE (Germany)**
Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW.
See Langenberg Programme.
- COPENHAGEN (Denmark)**
1,067 kc/s (281 m.); 1 kW. Relay by Kalundborg, 260 kc/s (1,153 m.).
Transmits at intervals from 8.30 a.m. (Gymnastics).
11.30 a.m.—Weather and News.
12 noon.—Town Hall Chimes.
12.3 p.m.—Concert of Wind Instrument Music.
1.0—2.0 p.m.—Language Lessons.
1.0 p.m.—Talk in English: A Day in the Life of a London Business Man.
1.20 p.m.—Talk in German: Ger-

Programmes for Sunday—(Cont.)

many during the Period of the Restoration, 1815—1830.
 1.40 p.m.—Talk in French: La Fontaine.
 2.0 p.m.—Orchestral Concert.
 2.45 p.m. (in the interval).—Reading.
 4.0 p.m.—Gramophone Records.
 4.30 p.m.—Programme for Children.
 5.0 p.m.—Divine Service from the Elias Church.
 6.20 p.m.—Talk by Hans Hansen.
 6.50 p.m.—Weather and News.
 7.15 p.m.—Time Signal; Sports Notes.
 7.30 p.m.—Talk: Ferdinand Bruckner.
 8.0 p.m.—Town Hall Chimes.
 8.2 p.m.—"The Hansen Family"—Humorous Episode (Jens Locher).
 8.15 p.m.—Concert from the Works of Debussy and Ravel. *Saraband* and *Rigaudon* from the Suite "Le tombeau de Couperin" (Ravel). The First Rhapsody for Orchestra and Clarinet (Debussy). *Pavane pour une infante defunte* (Ravel). *Prelude, Cortège and Air de danse* from "L'enfant prodige" (Debussy). Introduction and Allegro for Harp and Orchestra (Ravel). Two Selections from "Preludes": (a) La damoiselle élue, (b) La cathédrale engloutie.
 9.15 p.m.—"Narcotique"—a Wireless Sketch (Tristan Bernard).
 9.35 p.m.—Saxophone Recital.
 9.50 p.m.—Choral Concert.
 10.20 p.m.—News Bulletin.
 10.20 p.m.—Pianoforte Duets. *Andante and Variations, Op. 83*, and *Allegro brillante, Op. 92* (Mendelssohn-Bartholdy).
 11.0 p.m.—Dance Music from the Palace Hotel.
 12 midnight (in the interval).—Town Hall Chimes.
 12.30 a.m. (Monday).—Close Down.
CORK (Ireland)
 (6CK). 1,337 kc/s (225 m.); 1.5 kW.
 8.30—11.0 p.m.—See Dublin.
DUBLIN (Ireland)
 (2RN). 725 kc/s (413 m.); 1.5 kW.
 8.30 p.m.—Vocal and Instrumental Concert.
 11.0 p.m.—Time, Weather, National Anthem and Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.7 kW. Relayed by Cassel, 1,220 kc/s (246 m.).
 Transmits at intervals from 7.0 a.m. (Hamburg Relay).
 10.0 a.m.—Horn Quartet Concert.
 11.0 a.m. (from Cassel).—Choral Concert.
 12 noon.—Gramophone Concert.
 1.50 p.m.—Talks arranged by the Wiesbaden Board of Agriculture.
 2.0 p.m.—Rural Programme—Two Talks.
 3.0 p.m.—See Mühlacker.
 4.0 p.m. (from Wiesbaden). Orchestral Concert.
 6.0 p.m.—Talk: The International University at Davos.
 6.20 p.m.—Programme arranged by the Frankfurter Zeitung.
 6.50 p.m.—The Town of the Tomb of St. Boniface—a Microphone Report from Fulda.
 7.20 p.m.—Weather for Farmers and Sports Notes.
 7.30 p.m.—12 midnight.—See Mühlacker.
 10.15 p.m. (in an interval).—Time, Weather, News and Sports Notes.
 12 midnight (approx.).—Close Down.
HAMBURG (Germany)
 Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.); Flensburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,292 kc/s (232.2 m.).
 Transmits at intervals from 7.0 a.m. (Chimes and Concert from the Liner "Cap Polonio.")
 11.30 a.m.—See Leipzig.
 12 noon.—Concert from the Ostermann Restaurant.
 1.0 p.m.—Literary Programme—When Men of Letters see the World.
 2.0 p.m.—Orchestral Concert.
 3.0 p.m.—(from Kiel).—Pianoforte Recital of Etudes, with Explanatory Notes.
 3.45 p.m.—(from Hanover). North German Dialect Programme. Recitations and Orchestral Music.
 4.30 p.m.—(from Kiel) Songs from Old Viennese Musical Comedies—Soprano, Tenor and Baritone Selections.
 5.30 p.m.—"Robinson"—a Play, after

Defoe, for Older Children (Kurt Siemers) with Orchestral Selections.
 6.30 p.m.—A-cappella Recital by St. Michael's Church Choir.
 7.30 p.m.—Sports Talk: Pole Jumping.
 7.40 p.m.—Sports Notes and Weather.
 8.0 p.m.—(from Hanover). "Spring in North Germany"—Recitations and Orchestral Music. Poems (Iven Kruse, Gustav Falke and others). Orchestral Selection: Das Heidegedicht (Ritzau). Reading: Was die Krähen sich erzählen (H. Löns). Orchestral Selection: Ein Frühlingstraum (Lüling).
 8.30 p.m.—Victor Hollaender Revue Music—Songs and Orchestral Selections—the Composer conducting.
 10.0 p.m.—Weather, News and Sports Notes.
 10.30 p.m.—Dance Music by the Scarpa Orchestra.
HEILSBURG (Germany)
 1,085 kc/s (276.5 m.); 75 kW. Relayed by Danzig, 662 kc/s (453 m.).
 Transmits at intervals from 6.30 a.m. (Concert).
 11.0 a.m.—Festival Programme of the North-East Prussian Theatre at Tilsit. Musical Selections and Addresses.
 11.30 a.m.—See Leipzig.
 12.10 p.m.—Concert conducted by Dr. Hermann Scherchen, relayed from the Town Hall, Königsberg. Concerto for Pianoforte and Orchestra, Op. 28 (Conrad Ansgore). Concerto grosso (Kaminsky).
 12.55 p.m.—Time and Weather.
 1.5 p.m.—Concert of Light Music.
 2.0 p.m.—Talk on Chess.
 2.15 p.m.—Talk for Young People: Hunting Bears and Wolves.
 3.0 p.m.—The Dumky Trio (Dvorak).
 3.20 p.m.—Talk: A German Girl in America.
 4.0 p.m.—Orchestral Concert.
 5.15 p.m.—Hugo Wolf Songs for Tenor. Der Tambour. Der Gärtner. Die verschwegene Liebe. Fussesreise. Die nimmersatte Liebe. Die Begegnung. Er ist's.
 5.40 p.m.—Tea Dance from the Park Hotel, Königsberg.
 6.40 p.m.—(from Danzig).—Ballad Recital.
 7.15 p.m.—Sports Notes.
 7.25 p.m.—(from Danzig).—Talk: Travels through Austria.
 7.50 p.m.—Sports Notes.

8.0 p.m.—"Samson and Delilah"—Opera (Saint-Saëns) from the Municipal Opera House, Charlottenburg, followed by News and Sports Notes and Dance Music from Witleben.
HILVERSUM (Holland)
 1,004 kc/s (298 m.); 8.5 kW.
 9.30—11.10 a.m.—Programme of the Workers' Radio Society (V.A.R.A.).
 9.30 a.m.—Football Notes.
 9.35 a.m.—Talk by Mr. Lantinga.
 10.5 a.m.—News Bulletin.
 10.10 a.m.—Organ Recital.
 11.10 a.m.—Programme of the Liberal Protestant Radio Society (V.P.R.O.). Divine Service Relay.
 12.40—5.40 p.m.—Programme of the Algemeene Vereniging Radio Omroep (A.V.R.O.).
 12.40 p.m.—Time and Talk.
 1.10 p.m.—Octet Concert.
 2.40 p.m.—Weekly Book Talk.
 3.10 p.m.—Choral Concert.
 3.40 p.m.—String Quartet in E Minor (Smetana).
 4.15 p.m.—Talk (to be announced).
 4.45 p.m.—Camp Song Recital.
 5.20 p.m.—Gramophone Records and Sports Notes.
 5.40—8.40 p.m.—V.A.R.A. Programme
 5.40 p.m.—Programme for Children.
 6.25 p.m.—Orchestral Concert, with Variety Items.
 7.55 p.m.—Community Singing.
 8.40 p.m. till Close Down.—Programme of the A.V.R.O.
 8.40 p.m.—Time, Sports Notes and News.
 8.55 p.m.—Selections from "La Bohème" (Puccini).
 10.25 p.m.—Gramophone Records.
 10.40 p.m.—Orchestral Concert.
 11.40 p.m.—Gramophone Records.
 12.40 a.m. (Monday).—Close Down.
HUIZEN (Holland)
 160 kc/s (1,875 m.); 8.5 kW.
 9.10—10.10 a.m.—Programme of the Christian Radio Society (N.C.R.V.). Benediction.
 11.10 a.m.—5.40 p.m.—Programme of the Catholic Radio Society (K.R.O.).
 11.10 a.m.—High Mass from the Church of St. Jan de 's-Bosch.
 12.25 p.m.—Talk (to be announced).
 12.40 p.m.—Sextet Concert.
 2.10 p.m.—Religious Address.
 2.40 p.m.—Talk by Mr. Dongen.
 3.10 p.m.—Instrumental Concert.
 5.10 p.m.—Programme for Hospitals.
 6.30 p.m.—Programme of the

N.C.R.V. Divine Service from the Reformed Church at Amsterdam.
 8.25 p.m. till Close Down. Programme of the K.R.O.
 8.25 p.m.—Talk by Mr. Hendrix.
 8.50 p.m.—Football Results.
 8.55 p.m.—Concert by the Groningen Orchestral Society. The Old Wilhelmus. Jubelouvertüre (Weber). Hungarian Dances, Nos. 1, 2 and 3 (Brahms). Concerto for Violin and Orchestra in B (Brahms). Suite, The Swan Lake (Tchaikovsky). Andante cantabile from a String Quartet (Tchaikovsky). Popular Russian Song (Stravinsky). Valse triste (Sibelius). Ballet, Minuet, and Hungarian March from "The Damnation of Faust" (Berlioz).
 9.55 p.m. (in the interval).—News Bulletin.
 11.20 p.m.—Epilogue by the Choir.
 11.40 p.m. (approx.).—Close Down.
KALUNDBORG (Denmark)
 Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW.
 See Copenhagen Programme.
KATOWICE (Poland)
 Polskie Radio. 734 kc/s (408 m.); 16 kW.
 Transmits at intervals from 10.15 a.m.
 7.0 p.m.—Humorous Programme.
 7.25 p.m.—Talk.
 7.40 p.m.—Miscellaneous Announcements, Programme Notes, Theatre Review and Amusement Guide.
 8.0 p.m.—Literary Programme.
 8.30 p.m.—Pianoforte Recital.
 9.15 p.m.—Literary Programme.
 9.30 p.m.—Reading.
 10.0 p.m.—Reading.
 10.15 p.m.—Song Recital.
 10.50 p.m.—Weather, Sports Notes, Programme Announcements in French and News.
 11.0 p.m.—Light Music and Dance Music.
KÖNIGSBERG (Germany)
 Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW.
 See Heilsberg Programme.
LANGENBERG (Germany)
 Westdeutscher Rundfunk. 635 kc/s (473 m.); 17 kW. Relayed by Aachen, Cologne and Münster, 1,319 kc/s (227 m.).
 Transmits at intervals from 6.40 a.m. (Lesson in Self-Defence).



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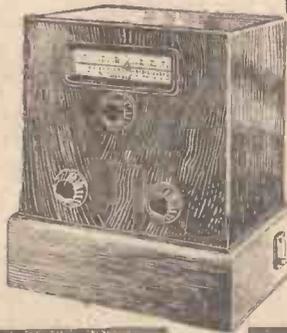
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McMICHAEL WIRELESS—EMBODYING TEN YEARS OF SUCCESSFUL RADIO MANUFACTURE

Programmes for Sunday—(Cont.)

11.0 a.m.—Talk: The German Language.
11.30 a.m.—See Leipzig.
12.5 p.m.—New Songs for Children.
12.30 p.m.—Talk on Topical Economic Questions: Is America rich?
1.0 p.m.—Orchestral Concert.
2.30 p.m.—Lesson in Chess.
2.50 p.m.—Programme for Girls.
3.20 p.m.—Talk on Vocations: Experiences of a Shorthand-Typist in America.
3.40 p.m.—Talk with Gramophone Illustrations: Music in India.
4.10 p.m.—Talk: The Beginning of the Reformation in Westphalia.
4.30 p.m.—Afternoon Concert. In an interval at 5.15 p.m. (approx.)—Half-an-hour at the West German Football Championship.
6.0 p.m.—Talk: Mecklenburg.
6.20 p.m.—An Entertainment.
6.50 p.m.—Sports Notes.
7.0 p.m.—Baron vom Stein Memorial Programme, relayed from Münster Castle. Musical Selection. Address by the President of the Prussian Diet. Address by Professor Eitel of Münster University: Baron vom Stein. Address by Herr Severing, Minister of the Interior. The National Anthem.
8.0 p.m.—See Heusberg. After the Programme, News, Sports Notes, Concert and Dance Music.
12 midnight (approx.)—Close Down.
LEIPZIG (Germany)
Mitteldeutscher Rundfunk. 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.). Transmits at intervals from 7.0 a.m. (Concert).
11.30 a.m.—Cantata, "Du Hirte Israel, höre" (J. S. Bach).
12 noon.—Talk: A First Ascent of the Bolivian Mountains.
12.30 p.m.—Concert by the Leipzig Symphony Orchestra relayed from the Conservatoire. Concerto Grosso for Orchestra and Pianoforte (Sigfrid Walther Müller). Kuvia Suubna—Pictures from Finland for Orchestra Op. 56 (N. O. Raastad). Puppenenspiel-Ouverture (Hans Gál).
2.0 p.m.—Reading of Prose.
2.30 p.m.—Gramophone Records.
3.30 p.m.—The Remarkable Life of the Knight "Sir John Falstaff"—Seven Episodes and an Epilogue by Shakespeare (arr. Julius Czerwinke).
5.0 p.m.—Second Half of the Final Match for the Cup of the German Football Association between Central and South Germany in Dresden.
5.45 p.m.—Chamber Music. Quintet for Flauto, Two Violins, Viola and Cello in C Sharp Minor Op. 42. (Hermann Zilcher).
6.15 p.m.—Talk: More Street Discipline.
6.45 p.m.—Concert of Light Music.
7.45 p.m.—Talk on the following Transmission.
8.0 p.m.—"Faust"—Opera (Sporh), relayed from the Landestheater, Braunschweig.
10.30 p.m.—News Bulletin, followed by Dance Music from Berlin (Witzleben).
12 midnight (approx.)—Close Down.
LWÓW (Poland)
788 kc/s (381 m.); 21 kW. Transmits at intervals from 10.15 a.m.
5.40 p.m.—Mandoline Concert.
6.10 p.m.—Cello and Pianoforte Recital.
7.0 p.m.—Miscellaneous Items.
7.25 p.m.—See Warsaw. In the interval at 9.15 p.m.—Literary Programme.
11.0 p.m.—Dance Music from the Bristol Palais de Danse.
12 midnight.—Close Down.
MADRID (Spain)
Union Radio (EJ7). 707 kc/s (424 m.); 2 kW.
8.0—9.30 a.m.—Topical Review.
11.30 a.m.—Municipal Band Concert from the Retiro (Weather permitting).
1.30 p.m.—Religious Instruction.
2.0 p.m.—Chimes, Time and Concert.
3.30—7.0 p.m.—Interval.
7.0 p.m.—Chimes and Dance Music. In the interval at 7.30 p.m.—Talk: Women in Benavente's Plays.
8.30—9.30 p.m.—Interval.
9.30 p.m.—Chimes, Time, Song Recital, Talks and "El rey que rabio"—Musical Comedy (Chapi).
12 midnight.—Chimes and Close Down.
MILAN (Italy)
Ente Italiano Audizioni Radiofoniche. 599 kc/s (501 m.); 8.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.), and Genoa, 959 kc/s (312.8 m.).
10.15 a.m.—Radio.

10.30 a.m.—Reading from the Bible.
10.50 a.m.—Gramophone Records of Sacred Music.
11.15—11.30 a.m. (Turin and Genoa).—Agricultural Report.
12.15—2.0 p.m.—Concert of Light Music.
1.0 p.m. (in the interval).—Time, Announcements and Talk: Points of View.
3.0 p.m. (approx.)—Relay from Bilbao of the International Football Match, Italy v. Spain, followed by Sports and Cinema Notes and Musical Programme.
6.30 p.m.—Giornale radio; Sports Notes.
6.40 p.m. (from Turin).—Variety Programme.
7.5 p.m.—Announcements.
7.15 p.m.—Light Music.
7.35 p.m.—Gramophone Records.
8.0 p.m.—Time, Announcements, Giornale radio and Weather.
8.35 p.m.—"The Flower of Life"—Comedy in Three Acts (S. and G. Alvarez Quintero).
10.0 p.m.—Talk by Carl Veneziani.
10.10 p.m.—Operetta Selections.
11.0 p.m.—Giornale radio.
11.10 p.m. (approx.)—Concert from the Sala Gay, Turin.
11.55 p.m. (approx.)—News.
MORAVSKÁ-OSTRAVA (Czechoslovakia)
1,139 kc/s (263 m.); 11 kW. Transmits at intervals from 8.0 a.m.
4.0 p.m.—Orchestral Concert.
5.30 p.m.—See Prague.
5.50 p.m.—Gramophone Records.
6.0 p.m.—See Prague.
7.5 p.m.—See Bratislava.
8.0 p.m.—See Prague.
10.15 p.m.—Programme Announcements and Theatre Notes.
10.20 p.m.—See Prague.
MOTALA (Sweden)
231.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme.
MÜHLACKER (Germany)
Süddeutscher Rundfunk. 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.). Transmits at intervals from 7.0 a.m. (Hamburg Relay).
11.0 a.m. (from Mannheim).—Pianoforte Recital.
11.30 a.m.—See Leipzig.
12 noon.—Organ Recital from the St. John's Church, Stuttgart.
1.0 p.m.—Topical Talk.
1.15 p.m.—Gramophone Records.
2.15 p.m.—Songs by Swabian Composers for Male Voice Choir.
3.0 p.m.—Programme for Children—Two Plays.
4.0 p.m.—See Frankfurt.
6.0 p.m.—Reading by the Author: "Friend of my Youth" (Adam Scharrer).
6.30 p.m.—Sports Review.
6.45 p.m.—Scenes from "The Renaissance" (Gobineau).
7.30 p.m. (from Freiburg).—Accordion Recital. March, Fest und treu (Kohler). Concert Waltz, Heimkehr (Blattner). Country Dance, Bauernstolz (Knupp). March, Wien bleibt Wien (Schrammel). Tyrolienne from "William Tell" (Rossini). Concert Waltz, Silvanigre (Oehrl). Waltz, La Bourrasque (Peyronnini). March, Treu zu Habla (Oehrl).
8.15 p.m. (from Mannheim).—"The Secret Marriage"—Comic Opera in Two Acts (Cimarosa).
9.30 p.m.—Old Dance Music.
10.15 p.m.—Programme Announcements, News and Sports Notes.
10.45 p.m.—Dance Music from the Pavillon Excelsior.
12 midnight (approx.)—Close Down.
MUNICH (Germany)
563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserslautern, 530 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.).
10.0 a.m.—Catholic Service.
10.45 a.m.—Chimes from Our Lady's Church.
11.30 a.m.—See Leipzig.
12 noon.—Military Band Concert from the Feldherrnhalle.
1.5 p.m.—Time, Weather and Programme Announcements.
1.15 p.m.—Agricultural Talk.
1.35 p.m.—Gramophone Records—Classical Music.
2.30 p.m.—Lesson in Chess.
3.15 p.m.—Reading (W. Lichtenberg).
3.35 p.m.—Soprano and Organ Recital.
4.5 p.m.—Programme for Children.
4.20 p.m.—Orchestral Concert. In the interval a Speech of Adam Müller (1779-1829).
6.0 p.m.—Agricultural Talk: Fields and Meadows in the Spring.
6.25 p.m.—Talk with Illustrations: Persian Music.

7.10 p.m.—Weather and Sports Notes.
7.20 p.m.—Choral Concert.
8.5 p.m.—Orchestral Concert. Overture, "The Merry Wives of Windsor" (Nicolaï). Concerto in E Flat Major for Violin and Orchestra (Mozart). Invitation to the Dance (Weber). Ballet Suite, Offenbachiana (Offenbach-Seger). Prelude and Entracte from "Der Corregidor" (H. Wolf). Selection from "Schwanda, the Piper" (Weinberger). Overture, "Le Maschere" (Mascagni).
9.40 p.m.—Pianoforte Recital by Theophil Demetriescu of Berlin. Rondo alla Turca (Mozart). Rondo in G Major (Beethoven). Rondo brilliant (Weber). Polonaise in E Major, Op. 19 (Liszt). Polonaises in D Minor and B Flat Major (Chopin).
10.20 p.m.—Time, Weather, News and Sports Notes.
10.45 p.m.—Orchestral Concert and Dance Music from the Café Maximilian.
12 midnight (approx.)—Close Down.
OSLO (Norway)
Kringkastingselskapet. 280 kc/s (1,071 m.); 75 kW. Relayed by Fredrikstad, 815 kc/s (368 m.); Hamar, 511 kc/s (587 m.); Notodden, 671 kc/s (447.1 m.); Porsgrund, 662 kc/s (453 m.); and Rjukan, 671 kc/s (447.1 m.).
10.50 a.m.—Chimes and Divine Service Relay.
5.0 p.m.—Orchestral Concert.
5.50 p.m.—Chimes and Divine Service from the Egerberg Church.
7.15 p.m.—Weather and News.
7.30 p.m.—Talk: Reminiscences of a Journey through Syria and Palestine.
8.0 p.m.—Choral and Orchestral Concert relayed from the University.
9.35 p.m.—Weather, News and Topical Talk.
10.5 p.m.—A Sketch.
10.15 p.m.—Dance Music from the Hotel Britannia, Nidaros, 608 kc/s (493.4 m.).
12 midnight (approx.)—Close Down.
PARIS (France)
Eiffel Tower (FLE). 207 kc/s (1,445 m.); 15 kW. Time Signals on 2,650 m.; 113 kc/s (2,605 m.) and 112.5 p.m. (preliminary and 6-dot signals).
6.45 p.m.—Le Journal Parlé.
8.20 p.m.—Meteorological Forecast.
8.30 p.m.—Gramophone Concert.
PARIS (France)
Poste Parisien. 914 kc/s (329 m.); 1.2 kW.
9.0 a.m.—Picture Transmission.
8.25 p.m.—Gramophone Records, Talk and News Bulletin.
9.0 p.m.—Concert. Overture, "Prince Igor" (Borodin). Chant nuptial (Chausson). Fourteenth Hungarian Rhapsody (Liszt). Variations for Strings on a Russian Theme by Russian Composers (Scriabin, Glazounoff, Rimsky-Korsakoff and Liadoff). Rhapsody, No. 4 (Brahms). Dance of the Will-o'-the-Wisps, Waltz of the Sylphs and Hungarian March from "The Damnation of Faust" (Berlioz).
PARIS (France)
Radio-Paris (CFR). 174 kc/s (1,725 m.); 17 kW.
7.45 a.m.—Gramophone Records.
8.0 a.m.—News and Press Review.
8.30 p.m.—Physical Culture Lesson.
11.0 a.m.—Advanced Book-keeping Lesson.
11.30 a.m.—Gramophone Dance Records.
12 noon.—Religious Address by the Reverend Father Lhanda.
12.30 p.m.—Concert of Sacred Music by the St. Cecilia Choral Society, under the direction of M. l'Abbé Brun.
12.45 p.m.—News Bulletin.
1.0 p.m.—Gramophone Dance Records. In an interval at 1.15 p.m.—Bilboquet in the Brick-Fields.
2.0 p.m.—Concert of Decca Records.
4.0 p.m.—Gramophone Concert.
7.0 p.m.—Agricultural Talk: The Campaign against May-Bugs, followed by Racing Results.
7.15 p.m.—Economic and Social Notes and News.
7.30 p.m.—Radio-Paris Circus.
8.0 p.m.—Musical Programme.
8.30 p.m.—News; Sports Results.
8.45 p.m.—Radio-Paris Café Concert. In the interval, Press Review, News and Time Signal.
POZNAŃ (Poland)
896 kc/s (335 m.); 1.0 kW. Transmits at intervals from 8.45 a.m.
6.45 p.m.—Orchestral Concert.
7.40 p.m.—Miscellaneous Items and News.
8.0 p.m.—See Warsaw.
10.0 p.m.—Time, Sports and Police Notes.

10.15 p.m.—Dance Music from the Wielkopolska Café.
12 midnight (approx.)—Close Down.
PRAGUE (Czechoslovakia)
Strasnice. 617 kc/s (487 m.); 5.5 kW. Transmits at intervals from 8.0 a.m.
10.30 a.m.—Walk for Workers: The English Week-end.
10.40 a.m.—Talk: Poets and their Works.
11.0 a.m.—Concert from the Works of Modern Czech Composers.
12 noon.—Time and News.
12.5 p.m.—See Bratislava.
1.30 p.m.—Agricultural Report.
2.0 p.m.—Talk: The Sugar Industry.
2.20 p.m.—Talk: Metallisation.
2.30 p.m.—Social Report.
3.40 p.m.—Talk: The Ninth Sokol Congress.
4.0 p.m.—See Moravská-Ostrava.
5.30 p.m.—Talk for Workers: Mexico.
6.0 p.m.—German Transmission. Organ Recital of Sacred Music.
7.0 p.m.—Sacred Music.
7.5 p.m.—See Bratislava.
8.0 p.m.—Cabaret Programme.
9.0 p.m.—Military Band Concert.
10.0 p.m.—Time, News and Sports.
10.15 p.m.—News, Theatre Notes and Programme Announcements.
10.20 p.m.—Concert from the Auto Club.
RIGA (Latvia)
Radio Riga. 572 kc/s (525 m.); 13 kW. Transmits at intervals from 10.15 a.m.
7.3 p.m.—Vocal and Orchestral Concert.
8.0 p.m.—News Bulletin.
8.30 p.m.—Soloist Concert.
9.0 p.m.—Weather and Orchestral Music.
9.30 p.m.—Dance Music.
11.0 p.m. (approx.)—Close Down.
ROME (Italy)
Ente Italiano Audizioni Radiofoniche (IRO). 630 kc/s (441 m.); 75 kW. Relayed by Naples, 905 kc/s (332 m.), and 2RO, 11,810 kc/s (254 m.).
10.0 a.m.—Reading from the Bible.
10.15 a.m.—Gramophone Records of Sacred Music.
10.45—11.0 a.m.—Sports Notes and Amusement Guide.
1.0—2.0 p.m.—Quintet Concert.
1.30 p.m. (in the interval). Time and Announcements.
3.0 p.m. (approx.)—Relay from Bilbao of the International Football Match, Italy v. Spain.
5.0—7.0 p.m. (approx.)—Symphony Concert, relayed from the Augusteo. Sports Notes in the intervals.
7.0 p.m.—Announcements and News.
7.15 p.m.—His Master's Voice Gramophone Records.
8.15 p.m.—Sports Notes and Press Review.
8.30 p.m.—Time and Announcements.
8.32 p.m. (approx.)—"Bacco in Toscana"—Operetta in Three Acts (Renato Brogi). In the interval: Talk and Announcements.
10.55 p.m. (approx.)—News.
SOTTENS (Switzerland)
Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW.; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.).
9.55 a.m. (from Geneva).—Chimes from St. Peter's Cathedral.
10.0 a.m. (from Geneva).—Protestant Service.
11.0 a.m. (from Lausanne).—Gramophone Records.
12.30—2.0 p.m.—Orchestral Concert.
5.30 p.m. (from Lausanne).—Concert.
7.55 p.m. (from Geneva).—Sports Notes.
8.0 p.m. (from Geneva).—Recital of Ballads for Violin.
8.20 p.m. (from Lausanne).—Concert.
10.0 p.m. (in the interval).—News.
10.30 p.m. (approx.)—Close Down.
STOCKHOLM (Sweden)
Radiotjänst (SASA). 639 kc/s (439 m.); 75 kW. Relayed by Boden, 244 kc/s (1,229.5 m.); Göteborg, 932 kc/s (322 m.); Hårbö, 1,166 kc/s (257 m.); Östersund, 221.9 kc/s (1,352 m.); Sundsvall, 554 kc/s (542 m.).
10.15 a.m.—Educational Report.
11.0 a.m.—Divine Service from St. Peter's Church.
12.45 p.m.—Weather Report.
1.0 p.m.—Elementary French Lesson, relayed from Malmo, 1,301 kc/s (231 m.).
1.30 p.m.—Reading (Carl von Linné).
2.0 p.m.—Concert by a Male Voice Choir, relayed from Luleå.
3.15 p.m.—Provincial Programme relayed from Malmberget, 689 kc/s (436 m.).
4.15 p.m.—The Kreuzer Sonata in A Major, Op. 47, for Violin and Pianoforte (Beethoven).

4.45 p.m.—Programme for Children. In the interval at 5.0 p.m.—Weather Report.
5.30 p.m.—Talk: The Names of Swedish Towns, relayed from Uppsala, 662 kc/s (453.2 m.).
5.55 p.m.—Chimes from the Town Hall.
6.0 p.m.—Evensong relayed from Göteborg.
7.10 p.m.—Weather Report.
7.15 p.m.—Pianoforte Recital.
7.30 p.m.—Relay from the Central Swimming Baths.
7.50 p.m.—"Othello"—Tragedy (Shakespeare).
9.40 p.m.—Violin Recital relayed from Göteborg.
10.10 p.m.—Concert of Light Music.
12.0 p.m. (approx.)—Close Down.
STRASBOURG (France)
Radio-Strasbourg (PIT). 869 kc/s (345 m.); 15 kW. Transmits at intervals from 10.45 a.m.
6.0 p.m.—Instrumental Concert of French Operetta Music.
6.45 p.m.—Sports Results.
6.50 p.m.—Sports Talk in French and German.
7.0 p.m.—Orchestral Concert.
7.30 p.m.—News in French and German.
7.45 p.m.—Gramophone Records.
8.30 p.m.—"Dr. Maire"—Alsatian Comedy in Three Acts (Stoskopf).
10.30 p.m.—Dance Records.
12 midnight (approx.)—Close Down.
TOULOUSE (France)
Radiophonie du Midi. 779 kc/s (385 m.); 8 kW. Transmits at intervals from 12.30 p.m.
7.15 p.m.—Dance Music.
7.30 p.m.—News Bulletin.
7.45 p.m.—Chansonnettes.
8.0 p.m.—Violin Solos.
8.15 p.m.—Orchestral Music.
8.30 p.m.—Operatic Music. In the interval at 8.55 p.m.—Fashion Review.
9.15 p.m.—Spanish Songs.
9.30 p.m.—Military Music.
9.50 p.m.—Light Music.
10.15 p.m.—Accordion Recital.
10.30 p.m.—News Bulletin.
10.40 p.m.—Concert arranged by the Vocalion Gramophone Company of Hayes.
11.15 p.m.—North African News.
11.30 p.m.—Chansonnettes.
11.45 p.m.—Dance Music.
12 midnight (approx.)—Close Down.
VIENNA (Austria)
Radio-Wien. 581 kc/s (517 m.); 20 kW. Relayed by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.). Transmits at intervals from 9.30 a.m.
1.5 p.m.—Orchestral Concert.
1.5 p.m.—Time and Programme Announcements.
1.10 p.m.—Choral Concert.
2.40 p.m.—Orchestral Concert. In the intervals, Racing Relays.
4.40 p.m.—Talk: Magic.
5.0 p.m.—Talk: Odism and Baron von Reichenbach.
5.30 p.m.—Chamber Music.
6.30 p.m.—Humorous Reading: Popular Types.
7.0 p.m.—Talk: The Life of Women in Palestine at the Present Day.
7.30 p.m.—Time, Sports Notes and Programme Announcements.
7.40 p.m.—Reading.
8.10 p.m.—"M. Lambertier" (Satan)—Three Act Play (Verneuil), arranged by R. Blum.
9.50 p.m. (approx.)—News.
10.0 p.m.—Orchestral Concert.
WARSAW (Poland)
Polskie Radio. 212 kc/s (1,411 m.); 158 kW. Transmits at intervals from 10.15 a.m.
12.15 p.m.—Tchaikovsky Concert by the Warsaw Philharmonic Orchestra.
2.0 p.m.—Agricultural Programme.
3.40 p.m.—Programme for Children.
4.10 p.m.—The Letter Box.
4.30 p.m.—Gramophone Records.
4.40 p.m.—Talk.
4.55 p.m.—Gramophone Records.
5.45 p.m.—Talk.
5.40 p.m.—Orchestral Concert.
7.0 p.m.—Miscellaneous Items.
7.25 p.m.—Talk: Islam's Holy City.
7.40 p.m.—Programme Notes.
7.45 p.m.—Talk.
7.50 p.m.—Gramophone Records.
8.0 p.m.—Cabaret Programme.
8.30 p.m.—Pianoforte Recital.
9.15 p.m.—Reading and Theatre Review.
9.30 p.m.—Orchestral Concert.
10.0 p.m.—Reading.
10.15 p.m.—Songs (Opieski).
10.50 p.m.—News Bulletin.
11.0 p.m.—12 midnight.—Light Music.

PROGRAMMES FOR MONDAY (April 20)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)

825.3 kc/s (397.4 m.); 13 kW.
Transmits at intervals from 1.30 p.m.
8.15 p.m.—Picture Transmission.
8.30 p.m.—Film Review.
8.45 p.m.—Vocal Tangos.
8.55 p.m.—News Bulletin.
9.0 p.m.—Talk for Housewives.
9.15 p.m.—Variety Programme.
9.30 p.m.—Popular Song Recital.
9.45 p.m.—Orchestral Concert. Songs in the interval.
10.45 p.m.—Dance Music.

BARCELONA (Spain)

Radio-Barcelona (EAJI). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 11.0 a.m.
6.0 p.m.—Trio Music.
7.0 p.m.—Dance Music from the Hotel Ritz.
8.30 p.m.—Humorous Catalan Song Recital, with Commentaries.
8.45 p.m.—Sports Notes.
9.0 p.m.—Chimes, Weather and Exchange Quotations.
9.5 p.m.—Humorous Review of the Week's Events in Verse.
9.25 p.m.—Instrumental Concert.
9.40 p.m.—Concert of Sardanas.
10.0 p.m.—News Bulletin.
10.5 p.m.—Talk in Catalan.
10.20 p.m.—Perez Moya Concert, conducted by the Composer. Sardanas: (a) Riallera, (b) Pepita. Tenor Solos: (a) Abudaa, (b) Pastorella, (c) Brindis. Orchestral Selections: (a) Dansa oriental, (b) Dansa africana. Catalan Songs: (a) Non, non, noneta, (b) La Marc de Déu, (c) El divé en el Dijous Sant, (d) Canço de bressol. Sardanas by a Mixed Choir and the Cobia Barcelona: (a) Marinada, (b) A Montserrat.
11.30 p.m.—Gramophone Records, 12 midnight (approx.).—Close Down.

BERLIN (Germany)

Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW.
Transmits at intervals from 5.45 a.m. (Hamburg Relay).
4.30 p.m.—See Berlin (Witzleben).
5.30 p.m.—Little Songs of Great Men.
6.0 p.m.—Talk: German for Germans—The Word of Foreign Origin.
6.30 p.m.—Educational Talk: Archaeology and the Bible.
7.0 p.m.—Elementary English Lesson.
7.25 p.m.—Agricultural Talk.
7.45 p.m.—Weather for Farmers, followed by Wireless Technical Talk: You ask, and we answer.
8.0 p.m.—See Hamburg.
10.0 p.m.—Weather, News and Sports Notes.
10.15 p.m. (approx.).—Dance Music from the "Delphi."
12.30 a.m. (Tuesday).—Close Down.

BERLIN (Germany)

Witzleben. 716 kc/s (418 m.); 1.7 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics).
4.30 p.m.—Soloist Concert.
5.30 p.m.—Talk for Young People.
5.50 p.m.—Talk: The Dramaturgy of the Provincial Theatre.
6.15 p.m.—Hermann Linden reads from his own Works.
6.35 p.m.—Talk: Newspaper Reports in Sensational Legal Cases.
7.0 p.m.—Concert of Light Music. Overture, "Czar and Carpenter" (Lortzing). Waltz, Nachtfalter (Joh. Strauss). Selection from "The Bird Fancier" (Zeller) Hungarian Dances Nos. 5 and 6 (Brahms). Waltz, Dorfkind (Kálmán). Liebesfreud (Kreisler). Spanish Dance (Sarasate). Frühlingsglaube (Schubert). Spring Song; (Mendelssohn-Bartholdy). March, Wien bleibt Wien (Schrammel). Volga Gipsies (Spialek). Tone Picture, A Morning in Sanssouci (Kockert).
7.30 p.m. (in the interval).—Topical Programme.
8.30 p.m.—Topical Talk.
9.0 p.m.—News; Sports Notes.
9.10 p.m.—Orchestral Concert. Little Lyric Suite, Op. 18 (Lew Knipper). Concerto for Piano forte in F Minor, Op. 114 (Reger).
10.0 p.m.—See Frankfurt.
10.30 p.m.—Weather, News and Sports Notes.
10.55 p.m. (approx.).—Dance Music from the "Delphi."
12.30 a.m. (Tuesday).—Close Down.

BORDEAUX-LAFAYETTE (France)

(PTT). 986 kc/s (304 m.); 35 kW.
Transmits at intervals from 12.45 p.m.
6.0 p.m.—Talk on Madagascar, its history, Ethnography. Resources and Future.
7.30 p.m.—News and Market Prices.
7.40 p.m.—Talk on Sports.
7.55 p.m.—Results of the Prize Draw.
8.0 p.m.—Talk on Social Hygiene.
8.15 p.m.—Charades.
8.30 p.m.—Chamber Music Concert, followed by an Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)

1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.30 a.m.
7.0 p.m.—See Prague.
7.5 p.m.—Popular Music.
7.30 p.m.—See Prague.
8.30 p.m.—Song Recital. Aria from "Il Seraglio" (Mozart). Villanella (Dell'Acqua). Czech and Slovakian Song.
9.0 p.m.—See Brno.
10.0 p.m.—See Prague.
10.15 p.m.—Programme Announcements.
10.20 p.m.—See Moravská-Ostrava.

BRESLAU (Germany)

923 kc/s (325 m.); 1.7 kW. Relayed by Glewitz, 1,184 kc/s (253 m.).
Transmits at intervals from 7.0 a.m. (Alarm and Gymnastics).
7.0 p.m.—Victor Hollander Concert, on his Sixty-Fifth Birthday. Overture, "Auf ins Metropol." Reinländer from "Der Teufel lacht dazu." Selection from "Die Herrin von Maxim." Giampictromarsch.
7.30 p.m.—Weather for Farmers.
7.35 p.m.—Sound Film Music by the Station Orchestra. Selections from "The Merry Wives of Vienna" (Stolz). Selections from "Fra Diavolo" (Beccia).
8.0 p.m.—Weather Forecast.
8.5 p.m.—Talk: Civic Education.
8.30 p.m.—String Quartet, No. 3, Op. 41 (Schumann).
9.0 p.m.—(from Glewitz).—"Julia's Wedding"—A Humorous Episode from Popular Life.
9.30 p.m.—Paul Zech reads from his own Works.
10.10 p.m.—Time, Weather, News, Sports Notes and Programme Announcements.
10.30 p.m.—Technical Letter Box.
10.40 p.m.—Talk on the Theatre.
11.0 p.m. (approx.).—Silent Night.

BRNO (Czechoslovakia)

878 kc/s (342 m.); 3 kW.
Transmits at intervals from 11.15 a.m.
7.0 p.m.—See Prague.
7.5 p.m.—Dialogue: Moravian Writers.
7.30 p.m.—See Prague.
8.30 p.m.—Humorous Reading.
9.0 p.m.—Orchestral Concert, conducted by Janota. Overture, "Oberon" (Weber). Lyric Suite, Op. 54 (Grieg). Selection and B. Chabale (Dvorák). Romance, Op. 5 (Tch. aikovsky). Ballet Suite (Popy). Caprice (Brahms).
10.0 p.m.—See Prague.
10.15 p.m.—News Bulletin.
10.20 p.m.—See Moravská-Ostrava.

BRUSSELS (Belgium)

Radio-Belgique. 590 kc/s (509 m.); 20 kW.
5.0 p.m.—Orchestral Concert. Overture, "La dame blanche" (Boieldieu). Selection from "Carmen" (Bizet). Minuet (Boccherini). Valse, Wood Nymphs (Coates). Selection from "Dédé" (Christine). Waltz, Chantilly (Waldteufel). Scenes from an Imaginary Ballet (Coleridge Taylor).
6.0 p.m.—Vocal and Orchestral Concert. Selection from "Cavalleria rusticana" (Mascagni). Aria from "La Patrie" (Paladilne). Talk. Feuille d'album (d'Ambrosio). Aria from "The Pearl Fishers" (Bizet). Valse au clair de lune (Godard).
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk: Advice to Workmen.
7.30 p.m.—Le Journal Parlé.
8.0 p.m.—Gramophone Records.
8.45 p.m.—Talk in Dialogue Form: On Speaking.
9.0 p.m.—Dance Music.
10.0 p.m.—Le Journal Parlé.
BRUSSELS No. 2 (Belgium)
887 kc/s (338.2 m.); 20 kW.
Programmes in Flemish.
5.0 p.m.—Dance Music.

BUCHAREST (Romania)

Radio-Bucarest. 761 kc/s (394 m.); 16 kW.
Transmits at intervals from 12 noon.
6.0 p.m.—Scientific Talks.
7.0 p.m.—Gramophone Records.
7.30 p.m.—German Lesson.
8.0 p.m.—Flute Recital.
8.30 p.m.—Talk (to be announced).
8.45 p.m.—Pianoforte Recital. Four Sonatas (Scarlatti). Four Etudes (Chopin). Legierza (Liszt). Au bord d'une source (Liszt).
9.15 p.m.—Quartet in D Major (Haydn).
9.45 p.m.—News Bulletin.

BUDAPEST (Hungary)

545 kc/s (550 m.); 23 kW.
Transmits at intervals from 9.15 a.m.
6.25 p.m.—German Lesson.
7.0 p.m.—Talk on Japan.
7.30 p.m.—Concert by a Tzigane Orchestra.
8.30 p.m.—Orchestral Concert. Selections (Goldmark): (a) Im Frühling, (b) Selection from "The Queen of Sheba." Cello Concerto (Boccherini). Selection from "Il Trovatore" (Verdi). Suite, Roma (Bizet); followed by Gramophone Records.

COLOGNE (Germany)

Westdeutscher Rundfunk, 1,319 kc/s (227 m.); 1.7 kW.
See Langenberg Programme.

COPENHAGEN (Denmark)

1,067 kc/s (281 m.); 1 kW.
Relayed by Kalundborg, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m. (Exercises).
3.30 p.m.—Instrumental Concert. March, "The Gladiators" Farewell (Blankenburg). Overture, "Morning, Noon and Night" (Suppé). Waltz, Accelerationen (Joh. Strauss). Selection from "Die Puppenfee" (Bayer). Two Selections (Blon): (a) Blumengefüster, (b) Liebestraum. Amina (Lincke). Recital of Old Danish Songs (Weyse). Waltz, Pictures of the Shore (Waldteufel). Selection from "Paganini" (Lehar). Minuet (Boccherini). Viennese Music from "The Duchess of Chicago" (Kálmán). Selection from "The Jester" (August Enna). Ich tanz nur Polka gern, from "Riquette" (O. Straus). Russian March (Ganne).
5.40 p.m.—Exchange Quotations and Fish Market Prices.
5.50 p.m.—Talk for Dental Surgeons (from the Esbjerg Studio).
6.20 p.m.—English Language Lesson.
6.50 p.m.—Weather Report.
7.0 p.m.—News and Report of the Workers' Radio Society.
7.15 p.m.—Time Signal.
7.30 p.m.—Talk on Charlie Chaplin.
8.0 p.m.—Town Hall Chimes.
8.2 p.m.—Vocal and Instrumental Concert of Swedish Folk Music.
9.0 p.m.—Reading.
9.25 p.m.—Finnish Folk Songs and Dances and Reading in Finnish Dialect.
10.10 p.m.—News Bulletin.
10.25 p.m.—Symphony Concert. Overture, "Der Teufel als Hydraulicus" (Schubert). Symphony No. 104 in D Major—The London Symphony (Haydn).
11.0 p.m.—Dance Music from Lodberg's Restaurant.
12 midnight (in the interval).—Town Hall Chimes.
12.30 a.m. (Tuesday).—Close Down.

CORK (Ireland)

(6CK). 1,337 kc/s (225 m.); 1.5 kW.
6.0—10.30 p.m.—See Dublin.

DUBLIN (Ireland)

(2RN). 725 kc/s (413 m.); 1.5 kW.
1.30—2.0 p.m.—Time, Weather, Stock Report and Gramophone Concert.
6.0 p.m.—Gramophone Records.
6.15 p.m.—Programme for Children.
7.0 p.m.—Gramophone Records.
7.20 p.m.—News Bulletin.
7.30 p.m.—Time and Irish Lesson.
7.45 p.m.—Gabriel Fallon: Monologues.

8.0 p.m.—Concert. Alice Bell (Pianist) and Pearl Maconkey: Russian Music. Gertrude Cranfield (Soprano). The Station Sextet. Olinka and Rimsky-Korsakoff Music. Gerard Crofs (Tenor).
9.0 p.m.—"The Wily One"—Play by H. Maguire and Company.
9.30 p.m.—Sponsored Programme.
10.30 p.m.—Time, News, Weather and Close Down.

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.7 kW. Relayed by Cassel, 1,220 kc/s (246 m.).
Transmits at intervals from 6.15 a.m. (Müntzker Relay).
6.40 p.m.—Talk: Body and Soul.
7.5 p.m.—Time, Weather and Economic Notes.
7.10 p.m.—English Language Lesson.
7.35 p.m.—Beethoven Concert by the Frankfurt Orchestral Society, relayed from the Saalbau. Overture, "Coriolanus." Concerto in D Major for Violin. Seventh Symphony in A Major.
9.15 p.m.—Bert Schiff reads some of his Short Stories.
9.35 p.m.—Gramophone Concert.
10.0 p.m.—Topical Report: The French Army Debate (arr. Actualis).
10.40 p.m.—Time, Weather, News and Sports Notes.

HAMBURG (Germany)

Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.); Flensburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m. (Time, Weather, Agricultural Notes).
6.10 p.m.—Variety Programme.
7.0 p.m.—See Königs Wusterhausen.
7.30 p.m.—Dialogue for Workers: The Joiner in Shipbuilding.
7.50 p.m.—Exchange Quotations and Market Prices.
7.55 p.m.—Weather Report.
8.0 p.m.—"Haroun-al-Raschid"—Oeretta in Three Acts (Willy Hagen and Hans Brennecke). Music by Johann Strauss.
10.0 p.m.—News Bulletin.
10.30 p.m.—Concert from the Café Wallhof.
11.15 p.m.—Concert from the Café Continental, Hanover.

HEILSBURG (Germany)

1,085 kc/s (276.5 m.); 75 kW. Relayed by Danzig, 662 kc/s (453 m.).
Transmits at intervals from 6.30 a.m. (Exercises).
4.15 p.m.—Concert of Light Music, from the Park Hotel, Königsberg.
5.45 p.m.—Dora E. Behrend reads her own Short Stories.
6.10 p.m.—Market Prices.
6.30 p.m.—Review of Books.
7.0 p.m. (from Danzig)—Legal Talk.
7.25 p.m.—Weather Report.
7.30 p.m.—Orchestral Concert, conducted by Dr. Hermann Scherchen. Overture, "The Siege of Corinth" (Rossini). Movements from "Les petits riens" (Mozart). Concerto in D Minor for Piano forte and Orchestra (Brahms). Overture, "Coriolanus" (Beethoven).
8.45 p.m. (from Danzig) "Coriolanus"—Drama in Five Acts (William Shakespeare).
10.15 p.m.—Weather, News and Sports Notes.
10.55 p.m.—See Witzleben.
12 midnight (approx.).—Close Down.

HILVERSUM (Holland)

1,004 kc/s (298 m.); 8.5 kW.
8.40 a.m. till Close Down.—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
8.40 a.m.—Time and Gramophone Records.
10.40 a.m.—Daily Service.
11.10 a.m.—Quartet Concert.
12.40 p.m.—Organ and Song Recital. Prelude and Fugue in F Minor (G. F. Händel). Songs: (a) Ich will dich preisen (Bernhard Molique), (b) Recitative and Aria from "Jephtha" (Händel), (c) Mio caro bene (Händel). Sonata, Op. 42, No. 1 (Guilmant). Songs: (a) Auf dem Kirchhofe (Brahms), (b) Auf ein altes Bild (Hugo Wolf), (c) Non credo (Widor), (d) The Procession (C. Franck).
1.40 p.m.—Gramophone Records.
2.40—3.10 p.m.—Interval.
3.10 p.m.—Gramophone Records.
3.40 p.m.—Concert. Der Atlas

(Schubert). Der Doppelgänger (Schubert). Die Post (Schubert). Cello Solo: Fantasia, O cara Memoria (Servais). Scemansabschied (Hugo Wolf). Traum durch die Dämmerung (R. Strauss). Ich trage meine Minne (R. Strauss). Die beide Grenadiere (R. Schumann). Kol Nidrei (Bruch). Papillon (Popper).
4.40 p.m.—Gramophone Records.
5.10 p.m.—Programme for Children.
6.10 p.m.—Octet Concert. Overture in Italian Style (Schubert). Alsatian Dances (Levadé). Cradle Song (Iljinsky). Cello Solos: (a) Sous le ciel de Florence (Ackermans), (b) Tarantelle (Popper). Selection from "The Tales of Hoffmann" (Offenbach). Dream Waltz (Müllöcker). Two Selections (d'Ambrosio): (a) Gavotte et Musette, (b) Dream. Selection from "Der lustige Krieg" (Joh. Strauss). Maritza Waltz (Kálmán). March, Porta Hungarica (Morena).
7.40 p.m.—Weekly Book Talk.
8.10 p.m.—Gramophone Records.
8.40 p.m.—"No. 1"—Cantata (Teleman) for Soloist and Orchestra.
9.40 p.m.—Violin Recital. Sonata in B Minor (Tartini). Prelude and Fugue (Reger). Ballade and Polonaise (Vieuxtemps).
10.10 p.m.—Orchestral Concert.
11.0 p.m.—Weather and News.
11.10 p.m.—Concert of Light Music.
11.50 p.m.—Gramophone Records.
12.40 a.m. (Tuesday).—Close Down.

HUIZEN (Holland)

162 kc/s (1,875 m.); 8.5 kW.
8.40 a.m.—8.40 p.m.—Programme of the Christian Radio Society (N.C.R.V.).
8.40 a.m.—Reading.
8.55—10.10 a.m.—Gramophone Records.
11.10 a.m.—Programme for Hospitalists.
11.40 a.m.—Reading.
12.10 p.m.—Gramophone Records.
12.40 p.m.—Police Notes.
12.55 p.m.—Gramophone Records.
1.10 p.m.—Organ Recital.
2.25 p.m.—Gramophone Records.
2.40 p.m.—Programme for Schools.
3.15 p.m.—Talk by Mr. Herwig.
3.55 p.m.—Dressmaking Lesson.
4.40 p.m.—Programme for Hospitalists.
5.40—5.50 p.m.—Interval.
5.50 p.m.—Orchestral Concert.
7.10 p.m.—Recital of Songs.
8.10 p.m.—Police Notes.
8.25 p.m.—Gramophone Records.
8.40 p.m. till Close down.—Programme of the Catholic Radio Society (K.R.O.).
8.40 p.m.—Orchestral Concert. Marche militaire (Schubert). Overture, "Undine" (Lortzing). A Wedding Day on Troidhaugen (Grieg). Peer Gynt Suite, No. 2 (Grieg). Four Preludes to "Carmen" (Bizet). Selection from "La Traviata" (Verdi). Waltz on Motives from "The Tales of Hoffmann" (Frost). Selection from "The Merry Peasant" (Fall).
10.25 p.m.—A Wireless Play.
11.55 p.m.—Gramophone Records.
12.40 a.m. (Tuesday).—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW.
See Copenhagen Programme.

KATOWICE (Poland)

Polskie Radio. 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m.
7.0 p.m.—Announcements, Programme Notes, Theatre Review and Amusement Guide.
7.15 p.m.—Talk by Mr. Gladysz.
7.40 p.m.—Press Review.
7.55 p.m.—News Bulletin.
8.0 p.m.—Reading.
8.15 p.m.—Talk.
8.30 p.m.—Talk on Music.
9.0 p.m.—See Warsaw.
11.20 p.m.—Weather Programme Announcements in French and News.
11.30 p.m.—Talk in English: Great Polish Novelists II—Zeromsky and Reymont.

KAUNAS (Lithuania)

Radio Kaunas. 155 kc/s (1,935 m.); 7 kW.
5.30 p.m.—Musical Programme.
6.0 p.m.—Lithuanian Language Lesson.
6.30 p.m.—Talk: The Education of the Nation.
7.0 p.m.—Time, Weather and News.
7.30 p.m.—Musical Programme.
8.30 p.m.—Talk by V. Augulis.
8.50 p.m.—Chamber Music.
9.30 p.m.—Radio Journal.
9.50 p.m.—Musical Programme.

Programmes for Monday—(Cont.)

KÖNIGSBERG (Germany)

Ostmarken Rundfunk, 1,382 kc/s (217 m.); 1.7 kW. See Heilsberg Programme.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by Helsingfors, 1,355 kc/s (221 m.).

Transmits at intervals from 11.0 a.m.

6.45 p.m.—Orchestral Music. March, Attila (Fucik). Valse romantique (Heinecke). Selection from "The Little Dutch Girl" (Kálmán).

7.15 p.m.—Talk (to be announced).

7.40 p.m.—Scene from "Orpheus"—Opera (Gluck), for Soloists and Orchestra.

8.0 p.m.—Humoresques.

8.20 p.m.—Orchestral Music. Selection from "Piquette" (Tchakovsky). Overture, "Russian and Ludmilla" (Glinka).

8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk, 635 kc/s (473 m.); 17 kW. Relayed by Aachen, Cologne and Münster, 1,319 kc/s (227 m.).

Transmits at intervals from 6.45 a.m.

5.0 p.m.—Contra and Pianoforte Recital. Variations in C Major on "Ah, vous dirai-je, maman" (Mozart). Three Songs (Brahms): (a) Auf dem See, (b) Maimacht, (c) Willst du, dass ich geh'. Rondo in C Major, Op. 51 (Beethoven). Aufschwung (Schumann): Two Songs (Wolf): (a) Rat einer Alten, (b) Der Freund. Three Waltzes (Chopin).

6.10 p.m.—Talk with Gramophone Illustrations: The Gate to Asia—Music and Dances of the Caucasians.

6.40 p.m.—Spanish Conversation.

7.0 p.m.—Weather, Time, Economic and Sports Notes.

7.15 p.m.—Topical Talk.

7.30 p.m.—Talk: The Pope's Encyclical to Workers.

7.55 p.m.—First News Bulletin.

8.0 p.m.—Songs of Youth—Choral Selections.

8.20 p.m.—Concert by the Dortmund Chamber Orchestra. Concerto for String Orchestra (Lully, arr. F. Weingartner). Concerto in D Minor for Pianoforte and Orchestra (Mozart). Feierliche Musik (Stürmer). Le tombeau de Couperin (Ravel). March, Waltz, Polka and Galop from Suite No. 2 (Stravinsky); followed by News and Sports Notes.

10.0 p.m.—See Frankfurt. After the Programme, Concert and Dance Music.

11.0 p.m.—Gramophone Records of Famous Dance Bands.

12 midnight (approx.)—Close Down.

LEIPZIG (Germany)

Mitteldeutscher Rundfunk, 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.).

Transmits at intervals from 9.45 a.m.

7.0 p.m.—Talk: Contemporary Questions of Gymnastics.

7.30 p.m.—Orchestral Concert. Ballet Suite (Lully-Mottl). Ballet Scene for Violin and Orchestra, Op. 100 (Bériot). Overture, "Barbe-Bleue" (Offenbach). Music to the Dance Play, "Die Prinzessin von Tragant" (O. Straus). Waltz from "Das fatale Ei" (Walter Schütz).

8.30 p.m.—Talk: The Human and Intellectual Position of the Younger Generation of Authors.

9.0 p.m.—Concert from the Works of Leipzig Composers by the Leipzig Symphony Orchestra. Kleine Abendmusik for Chamber Orchestra, Op. 25 (Hermann Grabner). Serenade in B Flat Major, Op. 33 (Beilschmidt). Concerto for Violin and Orchestra in G Minor (Hermann Ambrosius). Totentanz, Op. 21 (Georg Kießig).

10.0 p.m.—See Frankfurt.

10.40 p.m.—News Bulletin, followed by Gramophone Records of Light Music and Dance Music.

11.30 p.m.—(approx.)—Close Down.

LJUBLJANA (Yugoslavia)

Radio-Ljubljana, 522 kc/s (574.7 m.); 2.8 kW.

Transmits at intervals from 12.15 p.m.

5.30 p.m.—Orchestral Concert.

6.30 p.m.—Italian Lesson.

7.0 p.m.—Polish Lesson.

7.30 p.m.—Talk on Hygiene.

8.0 p.m.—Orchestral Concert.

10.0 p.m.—Weather and News.

LWÓW (Poland)

788 kc/s (381 m.); 21 kW. Transmits at intervals from 11.58 a.m.

6.45 p.m.—Miscellaneous Items.

7.10 p.m.—See Warsaw. In the intervals at 7.40 p.m.—News and at 8.15 p.m.—Talk.

12 midnight—Close Down.

MADRID (Spain)

Union Radio (EATJ): 707 kc/s (424 m.); 2 kW.

Transmits at intervals from 11.45 a.m.

7.0 p.m.—Chimes, Exchange, Market Prices and Sports Review.

7.30 p.m.—Dance Music.

8.10 p.m.—Elementary Typewriting Lesson.

8.25 p.m.—News Bulletin.

8.30 p.m. (approx.)—Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche, 599 kc/s (501 m.); 8.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.) and Genoa, 959 kc/s (312.8 m.).

Transmits at intervals from 8.15 a.m. (Giornale Radio).

7.0 p.m.—Agricultural Report.

7.5 p.m.—Announcements.

7.15 p.m.—Concert of Light Music.

7.50 p.m.—Gramophone Records.

8.0 p.m. (in the interval)—Time, Announcements, Giornale Radio and Weather.

8.45 p.m.—Scientific Talk.

9.0 p.m.—Radio Marelli Concert Organised by Ildebrando Pizzetti.

10.0 p.m.—Variety Programme.

11.0 p.m.—Giornale Radio, followed by Music from the Cova Restaurant.

11.55 p.m.—Late News.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,130 kc/s (263 m.); 11 kW.

Transmits at intervals from 11.0 a.m.

7.0 p.m.—See Prague.

7.5 p.m.—See Brno.

7.30 p.m.—See Prague.

8.30 p.m.—See Brno.

10.0 p.m.—See Prague.

10.15 p.m.—Programme Announcements and Theatre Notes.

10.20 p.m.—Concert of Light Music.

MOTALA (Sweden)

221.0 kc/s (1,352 m.); 40 kW. See Stockholm Programme.

MÜHLACKER (Germany)

Süddeutscher Rundfunk, 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.).

Transmits at intervals from 6.15 a.m. (Time and Weather).

4.30 p.m. (from Karlsruhe)—Orchestral Concert. Concerto comique—Nos. 2 and 5 for Flute, Strings and Pianoforte (Michel Corrette, 1733). Five Contre-dances for Flute, Strings and Drum (Mozart). Choral varié for Tenor-Saxophone and Pianoforte (V. d'Indy). Pianoforte Solo: Der Jongleur (Ernst Toch). Trio for Vibraphone, Flute and Bass Clarinet (Kusterer). Canon for Three Saxophones, Flute and Bass Clarinet (Jos. Schelb). A Musical Jig-Saw—Po pourri (Ketelbey); followed by Modern Dance Music.

6.0 p.m.—Time, Weather and Agricultural Notes.

6.15 p.m.—Talk: The German Theatre at the Parting of the Ways.

6.40—10.40 p.m.—See Frankfurt.

10.40 p.m.—Programme Announcements, News and Weather.

MUNICH (Germany)

563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserlautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.).

Transmits at intervals from 6.45 a.m. (Gymnastics).

7.0 p.m.—Talk for Workers.

7.30 p.m.—Introductory Talk to the following Transmission.

7.35 p.m.—Ariadne auf Naxos—Opera (R. Straus), relayed from the National Theatre. In the interval at 8.50 p.m.—Wireless Hints.

10.20 p.m.—Time, Weather, News and Sports Notes.

OSLO (Norway)

Kringkastingselskapet, 280 kc/s (1,071 m.); 75 kW. Relayed by Fredrikstad, 815 kc/s (368 m.); Hamar, 511 kc/s (587 m.); Nodden, 671 kc/s (447.1 m.); Porsgrund, 662 kc/s (453 m.); Rjukan, 671 kc/s (447.1 m.).

Transmits at intervals from 11.15 a.m. (Drive Service).

5.15 p.m.—Chamber Music.

6.15 p.m.—Review of Foreign Affairs.

6.45 p.m.—Shorthand Dictation.

7.0 p.m.—Announcements, Weather and News.

7.30 p.m.—German Lesson.

8.0 p.m.—Time Signal.

8.2 p.m.—Southern Norwegian Programme relayed from Kristiansand, 1,274 kc/s (235.5 m.); Orchestral Concert, Recitations and Talk.

9.25 p.m.—Weather, News and Topical Talk.

10.5 p.m.—Concert by the Oslo Women's Choir.

10.35 p.m. (approx.)—Close Down.

PARIS (France)

Eiffel Tower (FLE), 207 kc/s (1,445 m.); 15 kW. Time Signals (on 2,650 m. 113 kc/s); at 10.25 a.m. and 11.25 p.m. (preliminary and 6-dot signals).

6.45 p.m.—Le Journal Parlé.

8.20 p.m.—Meteorological Forecast.

8.30 p.m.—Symphony Concert conducted by M. Edouard Flament.

Overture, "Gillette de Narbonne" (Audran-Casadesus).

Selection from "Ciboulette" (Hahn-Salabert).

Waltz from "Die Fledermaus" (Joh. Strauss-Winter).

Violin Solo from "Paganini" (Lehár-Salabert).

Overture, "La fille de Madame Angot" (Lecocq).

Selection from "L'amour masqué" (Messager-Salabert).

The Dollar Waltz (Fall).

Prelude to an Operetta (Casadesus).

Selection from "Hans the Flute Player" (Garne).

Waltz from "The Count of Luxembourg" (Lehár).

Selection from "La vie parisienne" (Offenbach-Chapelier).

PARIS (France)

Poste Parisien, 914 kc/s (329 m.); 2.2 kW.

9.0 a.m.—Picture Transmission.

8.25 p.m.—Gramophone Records, Talk and News Bulletin.

9.0 p.m.—Concert. Overture, "Si j'étais roi" (Adam). Waltz from "Die Teresina" (O. Straus).

Selection from "L'Elisir d'amore" (Donizetti). Ariette d'avril (Moignard). Selection from "The Black Domino" (Auber). Sonata for Viola and Pianoforte (Hummler).

Selection from "Madame Favart" (Offenbach). Je sais des airs anciens (Marguerite Canal). Selection from "Surcouf" (Planquette). La caravane passe (Omer Letoury). Wedding March (Filippucci).

PARIS (France)

Radio-Paris (CFR), 174 kc/s (1,725 m.); 17 kW.

Transmits at intervals from 6.45 a.m. (Physical Culture).

12.30 p.m.—Gramophone Records.

1.0 p.m.—Exchange Quotations and News.

1.5 p.m.—Gramophone Concert of Symphony Music. In the intervals at 1.30 p.m.—Exchange Quotations and at 2.0 p.m.—Exchange and Market Prices.

3.30 p.m.—Exchange and Market Prices.

5.55 p.m.—Exchange Quotations.

6.0 p.m.—Gramophone Records.

6.30 p.m.—Agricultural Report and Racing Results.

7.0 p.m.—Film Review: Charlie Chaplin's "City Lights".

7.10 p.m.—Literary Review.

7.30 p.m.—Spanish Lesson.

7.45 p.m.—Commercial Prices, Economic and Social Notes and News.

8.0 p.m.—"Les Bouffons"—Play (Zamaçois) by M. Seigner and his Company. In the intervals at 8.30 p.m.—News and Sports Results and at 8.40 p.m.—A Review.

9.15 p.m.—Press Review, News and Time Signal.

9.30 p.m.—Concert. Songs: (a) En sourdine and (b) Colloque sentimental (Debussy), (c) Une sainte en son aurore (Faure), (d) Douceur du soir (Canal), (e) Le Paon (Ravel). Preludes for Pianoforte (Debussy): (a) Voiles, (b) Des pas sur la neige, (c) La sérénade interrompue, (d) La cathédrale engloutie, (e) Minstrels. Sonata for Violin and Pianoforte, No. 10 (Beethoven).

POZNAŃ (Poland)

806 kc/s (335 m.); 1.9 kW.

Transmits at intervals from 7.15 a.m.

6.45 p.m.—Talk arranged by the Society for Physical Training and Military Preparation.

7.10 p.m.—Reading.

7.25 p.m.—Talk on Literature and Art in Poznań.

7.35 p.m.—Talk on Yugoslavia.

7.45 p.m.—Talk: Aesthetics in the Home.

8.0 p.m.—Miscellaneous Items and News.

8.10 p.m.—Mandoline Concert. March (Wagner). Lotus Flower (Ohlsen). Overture, Light Cavalry (Suppé).

8.30 p.m.—See Warsaw.

10.0 p.m.—Time, News, Sports and Police Notes.

10.15 p.m.—Topical Talk.

10.30 p.m. (approx.)—Close Down.

PRAGUE (Czechoslovakia)

Stranice, 617 kc/s (487 m.); 5.5 kW.

Transmits at intervals from 11.15 a.m.

7.0 p.m.—Time, News and Announcements.

7.5 p.m.—Talk: Literature and Art.

7.15 p.m.—Clarinet Recital.

7.30 p.m.—Gottwell's Revue.

8.30 p.m.—Chopin Pianoforte Recital. Scherzo in C Sharp Minor. Lullaby. Tarantella. Barcarolle. Polonaise.

9.0 p.m.—See Brno.

10.0 p.m.—Time, News and Sports Notes.

10.15 p.m.—News, Theatre Notes and Programme Announcements.

10.20 p.m.—Time and Chimes.

RIGA (Latvia)

Radio Riga, 572 kc/s (525 m.); 13 kW.

Transmits at intervals from 11.0 a.m. (News).

7.0 p.m.—Weather Report.

7.3 p.m.—Latvian Songs.

7.15 p.m.—Chamber Music from the Conservatoire. String Quartet in G Minor, Op. 20 (Ore). Trio for Pianoforte, Violin and Cello (Medtner).

8.0 p.m.—News Bulletin.

8.30 p.m.—Orchestral Concert.

9.0 p.m.—Weather Report.

9.10 p.m.—Old Dance Music.

10.0 p.m.—Popular Music.

11.0 p.m. (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (IRO), 680 kc/s (441 m.); 75 kW. Relayed by Naples, 905 kc/s (332 m.), and 2RO, 11,810 kc/s (25.4 m.).

Transmits at intervals from 8.15 a.m. (Giornale Radio and Weather for Shipping).

5.30—7.0 p.m. (approx.)—Concert by the Rome Quartet, relayed from the Royal Roman Philharmonic Academy.

7.10 p.m. (from Naples)—Announcements; Sports Notes.

7.15 p.m.—Agricultural Report.

7.25 p.m.—Giornale Radio, Announcements; News.

7.50 p.m.—Gramophone Records.

8.10 p.m.—Giornale Radio; Announcements, Sports Notes.

8.30 p.m.—Time, Announcements.

8.40 p.m.—Vocal and Instrumental Concert of Modern Songs of Various Nations. Announcements and Topical Review in the intervals.

10.55 p.m. (approx.)—Late News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY), 700 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.); and by W2XAD on 15,340 kc/s (19.56 m.).

Transmits at intervals from 12.45 p.m.

11.15 p.m.—Capitol Trio.

11.45 p.m.—Uncle Jim.

12 midnight.—Time Signal.

12.1 a.m. (Tuesday)—Programme Notes.

12.4 a.m.—Market Prices and News.

12.15 a.m.—Health Talk.

12.20 a.m.—Doc Peyton and the Hotel Kenmore Orchestra, Albany, N.Y.

12.59 a.m.—Weather Report.

1.0 a.m.—Musical Programme.

1.14 a.m.—Time Signal.

1.15 a.m.—Musical Programme.

1.30 a.m.—Baker Chocolate Programme.

1.45 a.m.—Musical Programme.

2.0 a.m.—Agricultural Programme.

2.30 a.m.—Programme from New York.

4.0 a.m.—Cathedral Echoes from Union College Chapel.

4.30 a.m.—Programme from New York.

5.30 a.m.—Organ Recital from Proctor's Theatre, Albany, N.Y.

6.0 a.m.—Bill Houlahan's Cadets.

6.30 a.m.—Doc Peyton and the Hotel Kenmore Orchestra, Albany, N.Y.

7.0 a.m. (approx.)—Close Down.

SOTTENS (Switzerland)

Radio-Suisse Romande, 743 kc/s (403 m.); 60 kW.; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (7

PROGRAMMES FOR TUESDAY (April 21)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)
825.3 kc/s (363.4 m.); 13 kW.
Transmits at intervals from 1.30 p.m. 8.15 p.m.—Waltzes.
8.30 p.m.—Solo Selections.
8.45 p.m.—Songs from Operas.
8.55 p.m.—News Bulletin.
9.0 p.m.—Chamber Music.
10.0 p.m.—Oriental Concert.
11.30 p.m.—Gramophone Records.

BARCELONA (Spain)
Radio-Barcelona (E.A.J.). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.0 a.m. (Topical Review).
6.0 p.m.—Trio Music.
7.0 p.m.—Dance Music from the Hotel Ritz.
8.30 p.m.—Elementary English Lesson.
9.0 p.m.—Chimes, Weather, and Exchange.
9.5 p.m.—Orchestral Concert.
10.5 p.m.—Report on Abandoned Children.
10.20 p.m.—Military Band Concert.
11.30 p.m.—Gramophone Records.
12 midnight (approx.)—Close Down.

BELGRADE (Yugoslavia)
697 kc/s (430.4 m.); 3 kW.
Transmits at intervals from 11.30 a.m. 5.0 p.m.—Pianoforte Recital. Pastorale (Corelli). Tambourin (Rameau). Intermezzo (Brahms). Ballad (Brahms). Ballad in G Minor (Chopin).
5.30 p.m.—Yugoslavian Music on Gramophone Records.
7.30 p.m.—German Lesson.
8.0 p.m.—Orchestral Concert.
8.30 p.m.—Chamber Music Concert, relayed from Zagreb, 977 kc/s (307 m.).
10.30 p.m.—News and Sports Notes.
10.50 p.m.—Gramophone Records of Popular Songs.

BERLIN (Germany)
Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW.
Transmits at intervals from 5.45 a.m. (Hamburg Relay).
4.30 p.m.—See Leipzig.
5.30 p.m.—Talk: An Introduction to Modern Music.
6.0 p.m.—Talk: Modern Book-keeping.
6.30 p.m.—Educational Talk: The Importance of Exploring the Sea.
7.0 p.m.—Elementary French Lesson.
7.30 p.m.—Talk on Political Economy.
7.55 p.m.—Weather for Farmers.
8.0 p.m.—See Berlin (Witzleben).
8.0 p.m.—Political Press Review, followed by Weather, News and Sports Notes; and Concert from Hamburg.
12 midnight (approx.)—Close Down.

BERLIN (Germany)
Witzleben. 716 kc/s (418 m.); 1.7 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics).
6.45 p.m.—A Man with Gramophone Records and Books.
7.45 p.m.—Political Press Review.
8.0 p.m.—Dance Music Evening, with Vocal Refrains. In the interval: The Interview of the Week.
10.0 p.m.—Weather, News and Sports Notes.

BORDEAUX-LAFAYETTE (France)
(P.F.T.). 986 kc/s (304 m.); 35 kW.
Transmits at intervals from 12 noon. 6.0 p.m.—Talk on Madagascar, its History, Ethnography, Resources and Future.
7.30 p.m.—News and Exchange.
7.40 p.m.—Elementary Spanish Lesson.
7.55 p.m.—Results of the Prize Draw.
8.0 p.m.—Advanced Spanish Lesson.
8.15 p.m.—Gramophone Records.
8.30 p.m.—Gramophone Concert.
9.0 p.m.—Gramophone Concert of Spanish Music for the benefit of the Spanish Colony in Bordeaux and the District. After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)
1,076 kc/s (270 m.); 14 kW.
Transmits at intervals from 11.30 a.m. 7.0 p.m.—See Prague.
7.30 p.m.—"The Star of Love"—Operetta (Oscar Straus).
10.0 p.m.—See Prague.
10.15 p.m.—Programme Announcements.
10.20 p.m.—Tzigane Music.

BRESLAU (Germany)
923 kc/s (325 m.); 1.7 kW. Relayed by Gleiwitz, 1,184 kc/s (253 m.).
Transmits at intervals from 7.0 a.m. (Alarm and Gymnastics).
7.0 p.m.—Weather for Farmers.
7.5 p.m.—Orchestral Concert. Overture, "Le fils du Mandarin" (Cui). Selection from "André Chénier" (Giordano). International Suite (Tchaikovsky). Romance for Cello (Saint-Saëns). Waltz, La plus que lente (Debussy). Mazurka from "Le roi malgré lui" (Chabrier).
8.0 p.m.—Weather Forecast.
8.5 p.m.—Dialogue for Women Workers: Correct Lighting spares the Eyes.
8.30 p.m.—See Berlin (Witzleben).
10.0 p.m.—Time, Weather, News, Sports Notes and Programme Announcements.
10.20 p.m.—Talk by O. Brandt.
10.35 p.m.—Report of the Silesian Wireless Listeners' Association.
10.40 p.m.—Morse Lesson for Short Wave Enthusiasts.
11.5 p.m. (approx.)—Silent Night.

BRNO (Czechoslovakia)
878 kc/s (342 m.); 3 kW.
Transmits at intervals from 11.15 a.m. 7.5 p.m.—Old Czech Satire from the Year 1400—(Pasovský).
7.30 p.m.—See Bratislava.
10.0 p.m.—See Prague.
10.15 p.m.—News Bulletin.
10.20 p.m.—See Prague.

BRUSSELS (Belgium)
Radio-Belgique. 590 kc/s (509 m.); 20 kW.
5.0 p.m.—Orchestral Concert. Overture, "The Italian Girl in Algiers" (Rossini). Selection from "Madame Butterfly" (Puccini). Four Melodies (Tosti). Selection from "Maia" (Leoncavallo). Selection from "Cavalleria rusticana" (Mascagni).
5.45 p.m.—Programme for Women and Children.
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk: The Weather.
7.40 p.m.—Le Journal Parlé.
8.0 p.m.—Vocal and Orchestral Concert, conducted by M. Quinet. Overture, "Oberon" (Weber). Song, Caprice for Violin and Orchestra (Guraud). Song, Hungarian Dances (Brahms). Talk, March from "The Damnation of Faust" (Berlioz). Song, Selection from "Les Erynnies" (Massenet). Duet, Fantasia on Two Walloon Carols (Jos. Jongen).
10.0 p.m.—Le Journal Parlé.

BRUSSELS No. 2 (Belgium)
887 kc/s (338.2 m.); 20 kW.
Programme in Flemish.
5.0 p.m.—Orchestral Concert. Overture, "The Barber of Seville" (Rossini). Selection from "Marouf" (Rabaud). Midnight on Maundy Thursday (Turina). En sourdine (Tellam). Selection from "Le train bleu" (Milhaud).
5.45 p.m.—Programme for Children.
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk: The Port of Antwerp.
7.30 p.m.—Le Journal Parlé.
7.55 p.m.—Talk for Women.
8.0 p.m.—Accordion and Vocal Quartet Concert. In the intervals, Recitations and Talk: Europe at a Critical Moment of its History.
10.0 p.m.—Le Journal Parlé.

BUCHAREST (Romania)
Radio-Bucarest. 761 kc/s (394 m.); 16 kW.
Transmits at intervals from 12 noon. 6.0 p.m.—Talk: The Literature and Language of Romania.
7.0 p.m.—Gramophone Records.
8.0—10.0 p.m.—Programme dedicated to Italy.
8.0 p.m.—Talk by His Excellency Signore Gabriele Preziosi.
8.15 p.m.—Orchestral and Vocal Concert of Italian Music. National Songs. Two Piedmontese Rhapsodies (Sinigaglia). Andante for Strings (Scarlatti-Tommasini). Nolette (Martucci). Old and New Italian Songs. Concerto for Cello and Orchestra (Boccherini). Selection from "Sicilian Vespers" (Verdi).
10.0 p.m.—News Bulletin.

BUDAPEST (Hungary)
545 kc/s (550 m.); 23 kW.
Transmits at intervals from 9.15 a.m. 6.25 p.m.—French Lesson.
7.0 p.m.—Talk by Koloman Vandor.
7.30 p.m.—"Die Maske"—Opera in Three Acts (Hubay), relayed from the Royal Hungarian Opera House, followed by Concert by a Tzigane

Orchestra from the Hotel St. Gellert.

COLOGNE (Germany)
Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW.
See Langenberg Programme.

COPENHAGEN (Denmark)
1,067 kc/s (281 m.); 1 kW. Relayed by Kalundborg, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m. (Exercises).
3.0 p.m.—Wind Instrument Concert. March, Berliner Luft (Lincke). Overture, "Falstaff" (A. Adam). Waltz, La belle Lolita (Morena). Intermezzo from "Cavalleria rusticana" (Mascagni). Selection from the Music to "Once upon a time" (Lange-Müller). Hedvig-Polka (Ramsøe). Ribershus-March (Fröhlich). Pianoforte Solos: (a) In der Nacht (R. Schumann). (b) Ende vom Lied, and (c) Si oiseau j'étais (Henselt). (d) Concert Paraphrase on "Roses of the South" (Strauss-Schütt). Jubilee March (Hoyer). Overture, "Flotte Bursche" (Suppé). Waltz, Die Hydrophaten (Gungl). Pflified (Joh. Strauss). Selection from "Faust" (Gounod). Mazurka, La Czarina (Ganne). King Frederick VII Honour March (Lumbye).
5.0 p.m.—Programme for Children.
5.40 p.m.—Exchange Quotations and Market Prices.
5.50 p.m.—Talk on Money.
6.20 p.m.—German Language Lesson.
6.50 p.m.—Weather Report.
7.0 p.m.—News and Report of the Danish Radio Club.
7.15 p.m.—Time Signal.
7.30 p.m.—Talk: Danish Workers' Law.
8.0 p.m.—Town Hall Chimes.
8.2 p.m.—Quartet in E Flat Major Op. 14 (Carl Nielsen).
8.30 p.m.—"Cosmos"—A Tragedy (Einar Christiansen).
10.15 p.m.—News Bulletin.
10.30 p.m.—Concert by the Venetian Trio (Mandoline, Mandola and Lute).
11.0 p.m.—Dance Music from the Wivel Restaurant.
12 midnight (in the interval)—Town Hall Chimes.
12.30 a.m. (Wednesday)—Close Down.

CORK (Ireland)
(6CK). 1,337 kc/s (225 m.); 1.5 kW.
6.0—10.30 p.m.—See Dublin.

DUBLIN (Ireland)
(2RN). 725 kc/s (413 m.); 1.5 kW.
1.30—2.0 p.m.—Time, Weather, Stock Report and Gramophone Concert.
6.0 p.m.—Gramophone Records.
6.15 p.m.—Programme for Children.
7.0 p.m.—Gramophone Records.
7.15 p.m.—News Bulletin.
7.30 p.m.—Time and Leigheacht Gaedhlighe.
7.45 p.m.—Relay of a Concert by the Belfast Wireless Orchestra, conducted by Mr. Vincent O'Brien.
9.0 p.m.—The Station String Orchestra.
9.20 p.m.—Betty Byrne (Contralto).
9.30 p.m.—Sponsored Programme.
10.30 p.m.—Time, News, Weather and Close Down.

FRANKFURT-am-MAIN (Germany)
770 kc/s (390 m.); 1.7 kW. Relayed by Cassel, 1,220 kc/s (246 m.).
Transmits at intervals from 6.15 a.m. (Mühlacker Relay).
7.10 p.m.—Time, Weather and Economic Notes.
7.15 p.m.—See Mühlacker.
7.50 p.m.—Mosaic Programme. Saxophone Recital; Gerhard Schäke reads from his own works; Orchestral Selection: Siegfried Idyll (Wagner); Topical Talk; Gramophone Records; Worldly Wisdom; "Altona 19097 and Love"—Short Scene; Quintet in E Flat Major for Pianoforte, Oboe, Clarinet, Horn and Bassoon (Mozart); "Romeo and Juliet in Saxony"—a Humorous Dialogue.
10.20 p.m.—Time, Weather, News and Sports Notes.
10.40 p.m.—Dance Music.
12.30 a.m. (Wednesday)—(Also on Zeesen, 31.38 m.)—Late Concert.
1.30 a.m. (approx.)—Close Down.

HAMBURG (Germany)
Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.);

Flensburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m. (Time, Weather, Agricultural Notes).
7.0 p.m.—Talk on Bee-keeping.
7.25 (from Kiel)—Talk: The Reform of the Divorce Law.
7.50 p.m.—Exchange Quotations and Market Prices.
7.55 p.m.—Weather Report.
8.0 p.m. (from Kiel)—Symphony Concert, by the Kiel Municipal Orchestra. The Fifth Symphony (Haydn). Three Movements from the Music to "Prometheus" (Beethoven). Overture, "Tannhäuser" (Wagner). The Fifth Symphony (Tchaikovsky).
9.45 p.m.—News Bulletin.
10.15 p.m.—Concert of Light Music. Overture, "A Carnival in Rome" (Joh. Strauss). Potpourri, Rendezvous bei Lehar. Waltz, Hofballtänze (Lanner). Serenade in F Minor (Farenghi). Intermezzo, Dutch Fisher Maidens (Fresco). Potpourri of "Flup" (Szulc). March, From A to Z (Klein-Doele). Potpourri of Russian Tzigane Romances and Dances (Schirmann). Suite, Nell Gwynn (German). March, Mai-Lieder (Lindemann).

HEILSBURG (Germany)
1,085 kc/s (276.5 m.); 75 kW. Relayed by Danzig, 662 kc/s (453 m.).
Transmits at intervals from 6.30 a.m. (Gymnastics).
4.15 p.m.—Concert of Light Music from the Park Hotel, Königsberg.
5.45 p.m.—Review of Books—Horse and Rider.
6.10 p.m.—Market Prices.
6.30 p.m. (from Danzig)—Talk: "The Work of the Business Man's Apprentice—Now and in the Past."
7.0 p.m.—Chamber Music by the Königsberg String Quartet. Quartet, Op. 130 in B Flat Major (Beethoven).
7.50 p.m.—Labour Market Report; Weather.
8.0 p.m.—See Berlin (Witzleben).
10.15 p.m.—Weather, News and Sports Notes.
10.30 p.m.—See Hamburg.
12 midnight (approx.)—Close Down.

HILVERSUM (Holland)
1,004 kc/s (298 m.); 8.5 kW.
8.40 a.m. till Close Down.—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
8.40 a.m.—Time and Gramophone Records.
10.40 a.m.—Daily Service.
11.10 a.m.—Gramophone Records.
12.40 p.m.—Gramophone Records.
1.40 p.m.—Organ and Song Recital.
2.10 p.m.—Gramophone Records.
2.40—3.10 p.m.—Interval.
3.10 p.m.—Chamber Music by the Dutch String Quartet. Quartet, No. 3, Op. 59 (Beethoven).
3.40 p.m.—Dressmaking Talk: Cutting out Patterns.
4.40 p.m.—Pianoforte Etudes, with Introductory Talk.
5.10 p.m.—Concert by a Children's Choir.
5.40 p.m.—Talk (to be announced).
6.10 p.m.—Orchestral Concert.
7.10 p.m.—Spanish Song Recital.
7.40 p.m.—English Language Lesson.
8.10 p.m.—Talk by Herman Rutters, with Violin Solos by Francis Koene.
8.55 p.m.—Talk (to be announced).
9.15 p.m.—Orchestral Concert. Overture, "Fra Diavolo" (Auber). Ballet Music from "Romeo and Juliet" (Gounod). Sous les tilleuls (Ma-senet). Le Pas des fleurs (Delibes). Overture, "La Mascotte" (Audran). Selection from "La fille de Madame Angot" (Lecocq). Marche aux flambeaux (Meyerbeer).
10.20 p.m.—Talk (to be announced).
10.45 p.m.—Weather and News.
10.55 p.m.—Orchestral Concert. Soloist: G. D. de Molenaar (Pianist). Overture, Pianoforte Concerto No. 13 in C Major (Mozart). Symphony No. 8 in B Minor (Schubert).
11.40 p.m.—Gramophone Records.
12.40 a.m. (Wednesday)—Close Down.

HUIZEN (Holland)
160 kc/s (1,875 m.); 8.5 kW.
8.40 a.m.—8.40 p.m.—Programme of the Catholic Radio Society (K.R.O.).
8.40—9.55 a.m.—Gramophone Records.
10.40 a.m.—Gramophone Records.
12.10 p.m.—Religious Address by the Rev. Fr. Perquin.
12.40 p.m.—Police Notes.

12.55 p.m.—Trio Concert.
2.25 p.m.—Gramophone Records.
2.40 p.m.—Programme for Women.
3.40—4.40 p.m.—Interval.
4.40 p.m.—Gramophone Records.
6.40 p.m.—Talk by the Rev. Fr. A. W. ter Maat.
7.10 p.m.—Talk (to be announced).
7.25 p.m.—Writing Lesson.
7.55 p.m.—Talk (to be announced).
8.25 p.m.—Police Notes.
8.40 p.m. till Close Down.—Programme of the Christian Radio Society (N.C.R.V.).
8.40 p.m.—Gramophone Records.
8.55 p.m.—"Requiem" (Verdi) for Soloists, Choir and the Amsterdam Concert Hall Orchestra. Talk in the Interval. After the Programme: News and Gramophone Records.

KALUNDBORG (Denmark)
Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW.
See Copenhagen Programme.

KATOWICE (Poland)
Polskie Radio. 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m. 7.0 p.m.—Announcements, Programme Notes, Theatre Review and Amusement Guide.
7.15 p.m.—Talk: Polish Literature.
7.35 p.m.—Press Review.
7.50 p.m.—Reading.
8.5 p.m.—Light Music.
8.30 p.m.—"I Pagliacci"—Opera (Leoncavallo). After the Programme, Weather, Programme Announcements in French, Light Music and Dance Music.
12 midnight (approx.)—Close Down.

KAUNAS (Lithuania)
Radio Kaunas. 155 kc/s (1,935 m.); 7 kW.
5.30 p.m.—Talk: Extraordinary Adventures.
6.0 p.m.—Talk on Elisabethville, the Centre of the Copper Mines.
6.20 p.m.—Gramophone Records.
6.35 p.m.—Talk for Housewives.
7.0 p.m.—Time, Weather and News.
7.30 p.m.—Musical Programme.
8.30 p.m.—Talk: The Rules of Lexicology.
8.50 p.m.—Talk by V. Ruginis.
9.10 p.m.—Musical Programme.

KÖNIGSBERG (Germany)
Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW.
See Heilsberg Programme.

LAHTI (Finland)
167 kc/s (1,796 m.); 54 kW. Relayed by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m. 6.15 p.m.—Agricultural Talk.
6.40 p.m.—Song Recital. Liebliche Wengen (Brahms). Du bist die Ruh (Schubert). Aria from "Rigoletto" (Verdi). Aria from "La Tosca" (Puccini). Aria from "Il Trovatore" (Verdi).
7.5 p.m.—Orchestral Concert, relayed from the University. Suite Op. 31 (Rosenberg). On Hearing the First Cuckoo in Spring (Deliuss). Summer Night on the River (Deliuss). Voces intimae, for Instrumental Quartet (Sibelius). Children's Symphony (Klimi).
8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)
Westdeutscher Rundfunk. 635 kc/s (473 m.); 17 kW. Relayed by Aachen, Cologne and Münster, 1,310 kc/s (227 m.).
Transmits at intervals from 6.45 a.m. (Physical Exercises).
5.0 p.m.—See Mühlacker.
6.0 p.m.—Review of Books.
6.20 p.m.—Talk: Trade Relations between Germany and the United States.
6.40 p.m.—French Lesson.
7.0 p.m.—Weather, Time, Economic and Sports Notes.
7.15 p.m.—Wireless Notes.
7.30 p.m.—Talk for Agriculturists.
7.55 p.m.—First News Bulletin.
8.0 p.m.—Orchestral Concert. Two Military Marches (Schubert). Concert Piece for Pianoforte and Orchestra (Weber). Ballet Music from "Rosamunde" (Schubert). Hungarian Rhapsody, No. 14 (Liszt). Spanish Caprice (Rimsky-Korsakoff). Rhapsody in Blue (Gershwin). Suite from "L'Arlésienne" (Bizet). Potpourri, Drei Sträuße (Lindemann).
10.0 p.m.—News, Sports Notes and Silent Night.

LEIPZIG (Germany)
Mitteldeutscher Rundfunk. 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.).

Programmes for Tuesday—(Cont.)

Transmits at intervals from 10.0 a.m. 4.30 p.m.—Concert by the Leipzig Symphony Orchestra. Academic Festival Overture, Op. 80 (Brahms). Tone Poem, The Triumph of Life (Fritz Theil). Selection from "Othello" (Verdi). Waltz, Pikantieren (Lehar). 5.30 p.m.—Weather and Time. 5.55 p.m.—Economic Notes. 6.5 p.m.—Talk for Women. 6.30 p.m.—French Language Lesson. 6.50 p.m.—Talk (to be announced). 7.0 p.m.—Dialogue: Child Friendships. 7.30 p.m.—An International Dance Revue on Gramophone Records, with Descriptive Talk. 8.30 p.m.—Extracts from the Utterances of Leading Spirits of the Age. 9.0 p.m.—Economic Report. 9.10 p.m.—Recital from the Works of Arnold Ebel, with the collaboration of the Composer. 10.0 p.m.—News Bulletin. 10.15 p.m. (approx.).—Orchestral Concert of Wedding Music. Wedding March, Als der Grossvater die Grossmutter nahm (Spohr). Wedding Scenes (Smetana). Torch Dance of the Brides from "Faramors" (Rubinstein). How Sleeping Beauty was wedded to the King's Son. Op. 12 (Kienzl). Wedding Waltz (von Dohnanyi). Cinderella's Wedding Polonaise and Peasant Dance, Op. 33 (d'Albert). Wedding Day on Trolldaugen, Op. 65, No. 6 (Grieg). Swedish Wedding Procession from the Suite "From the North Land" (Juel-Fredersen). 11.30 p.m. (approx.).—Close Down.

LJUBLJANA (Yugoslavia) Radio-Ljubljana. 522 kc/s (574.7 m.); 2.8 kW. Transmits at intervals from 12.15 p.m. 6.0 p.m.—Orchestral Concert. 7.0 p.m.—Talk: Antediluvian Animals. 7.30 p.m.—German Lesson. 8.0 p.m.—Orchestral Concert. 10.0 p.m.—Weather, News and Light Music.

LWÓW (Poland) 788 kc/s (381 m.); 21 kW. Transmits at intervals from 11.58 a.m. 6.45 p.m.—Miscellaneous Items. 7.10 p.m.—History Talk. 7.35 p.m.—News Bulletin. 8.0 p.m.—See Warsaw.

MADRID (Spain) Union-Radio (EAJ7). 707 kc/s (424 m.); 2 kW. Transmits at intervals from 8.0 a.m. (Topical Review). 7.0 p.m.—Chimes, Exchange, Market Prices and International Express News. 7.30 p.m.—Hunting and Fishing Notes and Dance Music. 8.10 p.m.—Elementary Typewriting Lesson. 8.25 p.m.—News Bulletin. 8.30—9.15 p.m.—Interval. 9.15 p.m.—Lesson in English Pronunciation. 9.30 p.m.—Chimes, Time, Exchange and Fifth Lecture-Recital on Contemporary Spanish Composers—Young Catalan Composers. 11.55 p.m.—News Bulletin. 12 midnight.—Chimes and Close Down.

MILAN (Italy) Enie Italiano Audizioni Radiofoniche. 590 kc/s (501 m.); 8.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.) and Genoa, 959 kc/s (312.8 m.). (Transmits at intervals from 8.15 a.m. (Giornale Radio). 7.0 p.m.—Agricultural Report. 7.5 p.m.—Announcements. 7.15 p.m.—Concert of Light Music. 7.50 p.m.—Gramophone Records. 8.0 p.m. (in the interval).—Time, Announcements, Giornale Radio and Weather. 8.45 p.m.—Talk by Salvator Gotta. 9.0 p.m.—Duets from Italian Operas. 9.20 p.m.—"The Best Beloved"—Operetta (Ranzato and Lombardo). In the intervals, Theatre Notes and Giornale Radio. After the Operetta, Relay of Music from the Sala Gay, Turin. 11.55 p.m. (approx.).—News.

MORAVSKÁ-OSTRAVA (Czechoslovakia) 1,139 kc/s (263 m.); 11 kW. Transmits at intervals from 11.0 a.m. 7.0 p.m.—See Prague. 7.5 p.m.—See Brno. 7.30 p.m.—See Bratislava. 10.0 p.m.—See Prague. 10.5 p.m.—Programme Announcements and Theatre Notes. 10.20 p.m.—See Prague.

MOTALA (Sweden) 221.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme.

MÜHLACKER (Germany) Süddeutscher Rundfunk. 833 kc/s (360 m.); 75 kW. Relay by Freiburg, 527 kc/s (570 m.). Transmits at intervals from 6.15 a.m. (Time and Weather). 4.0 p.m. (from Baden-Baden).—Orchestral Concert. Overture, Chal Romano (Ketelbey). Neapolitan Scenes (Massenet). Slavonic March (Tchaikovsky). Suite No. 2 from "Peer Gynt" (Grieg). Overture, "Mignon" (Thomas). Ballet Music from "The Queen of Sheba" (Goldmark). Polka from "Schwanda the Piper" (Weinberger). Carillon—a Musical Box Piece (Scherz). Waltz, Tales from the Vienna Woods (Joh. Strauss). Concert March (Koller). 6.0 p.m.—Time, Weather and Agricultural Notes. 6.15 p.m.—Talk: Teutonism in Slovakia and the Russian Carpathians. 6.45 p.m.—Talk: The German Romantics. 7.15 p.m.—Leo Blech Concert on his Sixtieth Birthday. In. roductory Talk: Blech as Composer and Conductor. Soprano Solos: Children's Songs. Selection by the Stuttgart Philharmonic Orchestra: Waldwanderung, Op. 8. 7.50—11.30 p.m.—See Frankfurt. 10.20 p.m. (in an interval).—Programme Announcements, News and Weather.

MUNICH (Germany) 563 kc/s (533 m.); 1.7 kW. Relay by Augsburg, 536 kc/s (560 m.); Kaiserslautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.). Transmits at intervals from 6.45 a.m. (Gymnastics). 7.5 p.m.—Talk. 7.30 p.m.—Orchestral Concert. Ballet Suite (Grétry-Huppertz). Comedy Overture (Eilenberg). Potpourri, Minutenspiele (Fetras). Interlude: "The Kiss"—A Grottesque (Robert Maxwell). Sérénade pittoresque (P. Gabryel). Humorous March, Baby spielt Empfang (Micheli). Seemannslied (Petrie). Interlude: "Thirty Degrees in February"—Humorous Sketch (Alfred Polgar). Intermezzo, The Whistler and his Dog (Pryor). Zsambeki Czardas (Gungl). March, Das ist mein Österreich (Fetras). Indigo-Marsch (Joh. Strauss). 8.50 p.m.—Talk: The Rising Generation of Authors. 9.15 p.m.—Baroque and Pre-Baroque—Music of the Fifteenth Century. 9.45 p.m.—Max Halbe reads from his own Works. 10.20 p.m.—Time, Weather, News and Sports Notes.

OSLO (Norway) Kringkastingselskapet. 280 kc/s (1,071 m.); 75 kW. Relay by Fredrikstad, 815 kc/s (368 m.); Hamar, 511 kc/s (587 m.); Notodden, 671 kc/s (447.1 m.); Porsgrund, 662 kc/s (453 m.); and Rjukan, 671 kc/s (447.1 m.). Transmits at intervals from 11.15 a.m. (Divine Service). 5.0 p.m.—Orchestral Concert. Reminiscences of Grieg (Urbach). Liebesfreud and Liebesleid (Kreisler). Suite (Halvorsen). Andante cantabile (Tchaikovsky). Fantasia on Popular American Melodies (Tobani). Waltz, Morgenblätter (Joh. Strauss). 6.0 p.m.—Programme for Housewives. 6.45 p.m.—Talk. 7.0 p.m.—Announcements, Weather and News. 7.30 p.m.—English Lesson. 8.0 p.m.—Time Signal. 8.2 p.m.—Scandinavian Programme relayed from Bodø, 662 kc/s (453.2 m.). 9.0 p.m.—Choral Recital from Stjanger, 1,247 kc/s (240.6 m.). 9.35 p.m.—Weather, News and Topical Talk. 10.5 p.m.—M. Oscar Braaten reads from his own Works. 10.35 p.m. (approx.).—Close Down.

PARIS (France) Eiffel Tower (FLE). 207 kc/s (1,445 m.); 15 kW. Time Signals (on 2,650 m., 113 kc/s) at 10.25 a.m. and 11.25 p.m. (preliminary and 6-dot signals). 6.45 p.m.—Le Journal Parlé. 8.20 p.m.—Meteorological Forecast. 8.30 p.m.—Political Review, followed by a Vincent d'Indy Concert. Introductory Talk. Fantasia on an Old French Rondo for Pianoforte. Song accompanied by the

Composer: Lied maritime. Concerto for Pianoforte, Flute, Cello and String Orchestra, conducted by the Composer. Madrigal in Old Style. Song accompanied by the Composer: Plainte de Thécia. Pianoforte Duet by the Composer and M. Arthur Hoérée: Chants du Terrori. Gramophone Records: Choral Selection: Wallenstein's Camp.

PARIS (France) Poste Parisien. 914 kc/s (329 m.); 1.2 kW. 9.0 a.m.—Picture Transmission. 7.45 p.m.—"Les Oncles de Guignol"—One Act Play (Tony Hardy), by the Society "Les Amis de Guignol à Paris." 8.25 p.m.—Gramophone Records and News. 8.45 p.m.—Sports Talk, Gramophone Records and News. 9.0 p.m.—Concert. Lustige Overture (Felix Weingartner). Kermesse and Serenade (Jan Blockx). Music for "Faust" (Lazzari). Spanish Scenes, Cuadros (Laparra). Causerie (Hüe). Legend. No. 4 (Dvorák). Festival March (Büsser).

PARIS (France) Radio-Paris (CFR). 174 kc/s (1,725 m.); 17 kW. Transmits at intervals from 6.45 a.m. (Physical Culture). 12.30 p.m.—Gramophone Records. 1.0 p.m.—Exchange Quotations and News. 1.5 p.m.—Gramophone Concert of Romanian, Polish, Hungarian, Hawaiian and Cuban Music. In the intervals at 1.30 p.m.—Exchange Quotations, and at 2.0 p.m.—Exchange and Market Prices. 3.30 p.m.—Exchange Quotations. 5.55 p.m.—Exchange and Market Prices. 6.0 p.m.—Gramophone Records of Sound Film Music. 6.30 p.m.—Agricultural Report and Racing Results. 7.0 p.m.—Talk with Readings: The Evolution of English Literature—Byron, Shelley and Keats. 7.30 p.m.—Elementary German Lesson. 7.45 p.m.—Commercial Prices, Economic and Social Notes and News. 8.0 p.m.—A Comedy. 8.30 p.m.—Sports Results. 8.35 p.m.—Gastronomic Review. 8.40 p.m.—A Review. 8.45 p.m.—Chamber Music. 9.15 p.m.—Press Review, News and Time Signal. 9.30 p.m.—Gramophone Records: Selection from "Siegfried" (Wagner).

POZNAŃ (Poland) 896 kc/s (335 m.); 1.9 kW. Also relayed on 9,830 kc/s (30.5 m.) from 1.5—2.0 p.m. Transmits at intervals from 7.0 a.m. 6.45 p.m.—Talk on Pronunciation. 7.0 p.m.—Elementary French Lesson. 7.15 p.m.—Reading. 7.30 p.m.—Miscellaneous Items and News. 7.50 p.m.—See Warsaw. After the Programme, Time, News, Sports and Police Notes and Dance Music from the Café Esplanade.

PRAGUE (Czechoslovakia) Strasnice. 617 kc/s (487 m.); 5.5 kW. Transmits at intervals from 11.15 a.m. 7.0 p.m.—Time and News. 7.5 p.m.—Popular Songs. 7.30 p.m.—See Bratislava. 10.0 p.m.—Time, News and Sports Notes. 10.15 p.m.—News, Theatre Notes and Programme Announcements. 10.20 p.m.—Gramophone Records. 11.0 p.m.—Time and News.

RIGA (Latvia) Radio Riga. 572 kc/s (525 m.); 13 kW. Transmits at intervals from 11.0 a.m. (News). 7.0 p.m.—Weather Report. 7.3 p.m.—Concert from the Works of Italian Composers followed by Orchestral Selections: (a) Berceuse (Godard), (b) Aria (Bach-Regner). 9.30 p.m.—Mandoline Concert. 10.30 p.m.—Variety Music. 11.0 p.m. (approx.).—Close Down.

ROME (Italy) Ente Italiano Audizioni Radiofoniche (IRO). 680 kc/s (441 m.); 75 kW. Relay by Naples, 905 kc/s (332 m.) and 2RO, 11,810 kc/s (25.4 m.). Transmits at intervals from 1.0 p.m. 5.0—6.30 p.m.—Vocal and Instrumental Concert in Memory of the birth of Rome and the Festival of Labour. Sextet Selection: Inno a Roma (Puccini). Andante tranquillo and Allegro agitato for Sextet from the Suite "Roma" (Bizet). Bass Solos: (a) Prayer

from "I promessi sposi" (Ponchielli), (b) Romance from "Salvator Rosa" (Gomez). Songs for Soprano: (a) Abruzzian Song (Montanaro), (b) Tuscan Song (Caggiano), (c) Venetian Song (Bianchini), (d) Sicilian Song (Sedero), (e) Neapolitan Song: Tarantella napoletana (De Meglio). Sextet Selections: (a) Inno del lavoro (Mascagni), (b) Dance Movement from the "Petite Suite" (Debussy). Bass Solo from "Robert le Diable" (Meyerbeer). Duets for Soprano and Mezzo-Soprano: (a) La sorgente (Benedetto Marcello) (b) Chanson de la brise (Gounod), (c) Il mal d'amore (Petrella), (d) Duet from "Hansel and Gretel" (Humperdinck). Waltz Suite from "The Arabian Nights" (J. Strauss).

7.30 p.m.—News; Announcements. 7.50 p.m.—Gramophone Records. 8.10 p.m.—Sports Notes. 8.30 p.m.—Time; Announcements. 8.40 p.m.—Literary Notes. 8.55 p.m. (approx.).—Relay of an Opera from the Royal Theatre of the Theatre San Carlo, Naples. Announcements and Reading of a Short Story in the interval. 10.55 p.m. (approx.).—News.

SCHENECTADY (U.S.A.) General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relay at intervals by W2XAF on 9,530 kc/s (31.48 m.) and by W2XAD on 15,340 kc/s (19.56 m.). Transmits at intervals from 12.45 p.m. 11.15 p.m.—Capitol Trio. 11.45 p.m.—Uncle Jim. 12.0 midnight—Time Signal. 12.1 a.m. (Wednesday).—Programme Announcements. 12.4 a.m.—Market Prices and News. 12.15 a.m.—Health Talk. 12.20 a.m.—Weather Report. 12.21 a.m.—Doc Peyton and the Hotel Kenmore Orchestra from Albany, N.Y. 12.59 a.m.—Time Signal. 1.0 a.m.—Programme from New York. 3.0 a.m.—General Electric Programme from New York. 4.0 a.m.—Footlight Featurettes. 5.0 a.m.—Sleepy Hall and Hotel De Witt Clinton Orchestra, Albany, N.Y. 5.30 a.m.—Organ Recital from Proctor's Theatre. 6.0 a.m.—Programme from New York. 6.30 p.m.—Doc Peyton and the Hotel Kenmore Orchestra from Albany, N.Y. 7.0 a.m. (approx.).—Close Down.

SOTTENS (Switzerland) Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.). Transmits at intervals from 12.25 p.m. 4.0 p.m.—(from Lausanne) Gramophone Concert. 5.30 p.m.—Orchestral Concert. 7.0 p.m.—Time and Weather. 7.2 p.m.—(from Lausanne) News. 7.10 p.m.—(from Lausanne) Elementary English Lesson. 7.30 p.m.—(from Lausanne) Literary Review. 8.0 p.m.—(from Geneva) Two Sonatas for Violin and Pianoforte (Mozart). 8.30 p.m.—Orchestral Concert. In the interval, Pianoforte Recital from the Works of Chopin. 10.0 p.m.—News Bulletin. 10.15 p.m. (approx.).—Close Down.

STOCKHOLM (Sweden) Radiotjänst (SASA). 689 kc/s (436 m.); 75 kW. Relay by Boden, 244 kc/s (1,220.5 m.); Göteborg, 932 kc/s (322 m.); Hörby, 1,166 kc/s (257 m.); Motala, 221.9 kc/s (1,352 m.); Östersund, 389 kc/s (770 m.); Sundsvall, 554 kc/s (542 m.). Transmits at intervals from 7.15 a.m. (Gymnastics). 5.0 p.m.—Weather followed by Programme for Children. 5.30 p.m.—Organ Recital. 5.50 p.m.—Light Music. 6.30 p.m.—Talk: Women's Choice of Work. 7.0 p.m.—Weather, followed by Choral Concert. 7.30 p.m.—Talk on Bibles, relayed from Malmö, 1,301 kc/s (231 m.). 7.50 p.m.—Orchestral Concert. Overture, "Farinelli" (Zumpe). Selection from "Schön ist die Welt" (Lehar). Selection from "Polenblut" (Nedbal). Selection from "Walzer aus Wien," after Melodies by Joh. Strauss (Bittner-Korngold). Selection from "Victoria and her Hussar" (Abraham). Potpourri (Suppé-Morena). 8.55 p.m.—Talk on Foreign Politics. 9.40 p.m.—Literary Review.

10.10 p.m.—Gramophone Cabaret. 11.0 p.m. (approx.).—Close Down. **STRASBOURG (France)** Radio-Strasbourg (PTT). 869 kc/s (345 m.); 15 kW. Transmits at intervals from 11.30 a.m. 4.45 p.m.—Talk in German: The Campaign against Diseases in the French Colonies. 5.0 p.m.—Orchestral Concert. 5.45 p.m.—Talk in German: The Alsatian Language and Literature. 6.0 p.m.—Orchestral Concert. Overture, "Tancred" (Rossini). Selection from "Aida" (Verdi). Selection from "La Tosca" (Puccini). Selection from "I Pagliacci" (Leoncavallo). 6.45 p.m.—Talk in French: Auto-suggestion. 7.0 p.m.—Orchestral Concert. Selection from "La Périchole" (Offenbach). Waltz (Fetras). Selection from "The Bird Fancier" (Zeller). 7.30 p.m.—News in French and German. 7.45 p.m.—Gramophone Records. 10.30 p.m. (approx.).—Close Down.

TOULOUSE (France) Radiophonie du Midi. 779 kc/s (385 m.); 8 kW. Transmits at intervals from 12.45 p.m. 6.0 p.m.—Musical Programme. 6.30 p.m.—News and Exchange. 6.45 p.m.—Musical Programme. 7.30 p.m.—News, Racing Results, Exchange and Market Prices. 7.45 p.m.—Hawaiian Guitar Selections. 8.0 p.m.—Song Recital. Arias from (a) "Werther" (Massenet), (b) "Carmen" (Bizet), (c) "Mignon" (Thomas), (d) "Manon" (Massenet), (e) "Carmen" (Bizet) and (f) "I Pagliacci" (Leoncavallo). 8.25 p.m.—Gramophone Records. 8.55 p.m.—Fashion Review. 9.0 p.m.—Orchestral Music. 9.15 p.m.—"Eux"—Sketch (Donnay). 10.0 p.m.—Dance Music from the Sion. 10.30 p.m. (in the interval).—News. 11.0 p.m.—Chansonnets and Monologues. 11.15 p.m.—North African News. 11.30 p.m.—Violin Recital. 11.45 p.m.—Military Music. 12 midnight.—Weather and Announcements.

VIENNA (Austria) Radio-Wien. 581 kc/s (517 m.). 20 kW. Relay by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.). Transmits at intervals from 9.20 a.m. 7.15 p.m.—Talk with Experiments: The Origin of Oscillations and the Importance of Reaction Coupling. 7.45 p.m.—Concert from the Operetta of Oscar Straus. Overture, "Romance and Duet" from "Die lustigen Nibelungen." Song from "Hugdriech's Brautfahrt." Overture, Waltz Song, Finale and Selection from "A Waltz Dream." My Hero—Song from "The Chocolate Soldier." Waltz and March from "Prelude to the Tagant." Song, "Prelude to the Second Act and Waltz" from "Rund um die Liebe." Entr'acte Music and Song from "The Last Waltz" Overture and Duet from "Die Königin." Song from "Marietta." Vocal Tango, Dance Song and Waltz Song from "Der Bauerngeneral." 9.45 p.m.—News Bulletin. 9.55 p.m.—Haydn's String Quartets—A Series. String Quartet, Op. 3, No. 3, and String Quartet, Op. 33, No. 3. 10.45 p.m.—Concert from the Hotel Krantz Ambassador.

WARSAW (Poland) Polskie Radio. 212 kc/s (1,411 m.); 158 kW. Transmits at intervals from 11.40 a.m. 5.45 p.m.—Grieg Concert by the Warsaw Philharmonic Orchestra. Old Norwegian Romances. Norwegian Melodies for String Orchestra: (a) Popular Songs, (b) Dance of the Shepherds and Peasant Dance. Symphonic Dance No. 3. Lyric Suite. Scene III from "Olav Trygvason." 6.45 p.m.—Miscellaneous Items. 7.10 p.m.—Agricultural Report. 7.25 p.m.—Gramophone Records. 7.30 p.m.—Programme Announcements. 7.35 p.m.—Radio Journal. 8.0 p.m.—Choral Concert. 8.30 p.m.—Gramophone Concert—"Cavalleria Rusticana"—Opera (Mascagni) by Artistes of the Scala, Milan. After the Programme, Weather, Police and Sports Notes followed by Dance Music and Light Musical Selections.

PROGRAMMES FOR WEDNESDAY (April 22)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME.

ALGIERS (N. Africa) 825.3 kc/s (363.4 m.); 13 kW. Transmits at intervals from 1.30 p.m. 8.15 p.m.—Talk: Women's Work. 8.30 p.m.—Soloist Selections. 8.45 p.m.—Popular Song Recital. 8.55 p.m.—News Bulletin. 9.0 p.m.—Concert of Light Music. 9.45 p.m.—Wagner Concert. Siegfried Idyll. Selection from "The Mastersingers." March from "Tannhauser."

BARCELONA (Spain) Radio-Barcelona (EA11). 860 kc/s (349 m.); 8 kW. Transmits at intervals from 8.0 a.m. (Topical Review). 6.0 p.m.—Trio Music. 7.0 p.m.—Dance Music from the Hotel Ritz. 8.30 p.m.—Elementary French Lesson. 9.0 p.m.—Chimes, Weather and Exchange. 9.5 p.m.—Orchestral Concert. 10.0 p.m.—News Bulletin. 10.5 p.m.—"Misteri de Dolor"—Catalan Play in Three Acts (Adrian Gual). 11.30 p.m.—Gramophone Records. 12 midnight (approx.)—Close Down.

BERLIN (Germany) Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW. Transmits at intervals from 5.45 a.m. (Hamburg Relay). 4.30 p.m.—See Hamburg. 5.30 p.m.—Modern Song-Writing. Hans Chemin-Petit—A Talk with Musical Illustrations. 6.0 p.m.—Shorthand Lesson. 6.30 p.m.—Educational Talk: A Tour through German Provinces. 7.0 p.m.—Talk for Civil Servants: The New Spirit in Legal Prosecution and the Execution of a Sentence. 7.20 p.m.—Talk: A Vocational or Political Parliament—One or Two Houses? 8.0 p.m.—Weather for Farmers. 8.5 p.m. (approx.)—Orchestral Concert. Overture, "Phèdre" (Massenet). Ballet Scenes, Op. 52 (Glazounoff). Spanish Dances (Moszkovsky). Slavonic Dance (Dvorák). Symphonic Overture, An Ocean Voyage in 1925 (Burger). 9.15 p.m.—"Andree's Balloon Flight"—A Tragedy in the Ice—Wireless Report (Leo Wulferf). 10.15 p.m.—12.30 a.m. (Thursday).—See Berlin (Witzleben). 12.30 a.m. (approx.)—Close Down.

BERLIN (Germany) Witzleben. 716 kc/s (418 m.); 1.7 kW. Transmits at intervals from 6.30 a.m. (Gymnastics). 6.50 p.m.—Concert of Wind Instrument Music. March, Empor zum Licht (Dicker). Overture, "Le Maçon" (Auber). Waltz, O Frühling, wie bist du so schön (Lincke). Intermezzo, Lieb und freundlich (Thiele). Altheider Jubiläums-Marsch (Eschrich). Czaradas from "Der Geist des Wojewoden" (Grossmann). Selection from "Rigoletto" (Verdi). Waltz, Zigeunerleben (Manfred). March, Muss i denn (Woitschach). In an interval: "Plastic Art"—A Visit to Paul Simmel's Studio. 8.0 p.m.—See Hamburg. 9.30 p.m.—News; Sports Notes. 9.40 p.m.—Hans Tiessen Recital, conducted by the Composer. Elegy, Ophelia's Death—from the Suite to "Hamlet" Op. 30, No. 2. Andante quasi adagio from the Music for String Orchestra, Op. 34, No. 2. Prelude to a Revolutionary Drama, Op. 33. 10.15 p.m.—Weather, News and Sports Notes. 10.30 p.m. (approx.)—Dance Music. 12.30 a.m. (Thursday).—Close Down.

BORDEAUX-LAFAYETTE (France) (PTT). 986 kc/s (304 m.); 35 kW. Transmits at intervals from 12.45 p.m. 7.30 p.m.—News and Market Prices. 7.55 p.m.—Results of the Prize Draw. 8.0 p.m.—Agricultural Talk. 8.15 p.m.—Gramophone Records. 8.30 p.m.—Concert. Overture, "Pique Dame" (Suppé). Le cœur de ma mie (Dalcroze). Songs: (a)

Santa Lucia (Braga). (b) Serenade (Monti). Tenor Solo: Pour un seul amour (Gabaroché). Nuits algériennes (Grieg). Waltz, May Flowers (Barbirolli). Tenor Solos: (a) Le soir (Gounod), (b) La voix des chênes (Goublier). Violin Solo. Selection from "Le comte Obligado" (Moretti). Songs: (a) Serenade (Weckerlin), (b) Lolita (Buzzi Peccia). Tenor Solo: O sole mio (di Capua). Pierrette Pompadour (Grieg). Uncle Sammy (Holzmann). After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia) 1,076 kc/s (279 m.); 14 kW. Transmits at intervals from 11.30 a.m. 7.0 p.m.—See Prague. 7.5 p.m.—Song Recital. 7.25 p.m.—Pianoforte Recital: Pictures from an Exhibition (Mousorgsky). 8.0 p.m.—See Prague. 10.15 p.m.—Programme Announcements. BRESLAU (Germany) 923 kc/s (325 m.); 1.7 kW. Relayed by Gleiwitz, 1,184 kc/s (253 m.). Transmits at intervals from 7.0 a.m. (Alarm and Gymnastics). 7.0 p.m.—Gramophone Records of Viennese Music. 7.30 p.m.—Weather for Farmers. 7.35 p.m.—Gramophone Records of Karl Valentín. 7.55 p.m.—Weather Forecast. 8.0 p.m.—See Hamburg. 9.30 p.m. (from Gleiwitz)—Talk: Modern Industrial Organisations. 10.0 p.m.—Time, Weather, News, Sports Notes and Programme Announcements. 10.25 p.m.—Talk: Performances of the Breslau Opera House. 10.45 p.m.—Gramophone Cabaret. 12 midnight (approx.)—Silent Night.

BRNO (Czechoslovakia) 878 kc/s (342 m.); 3 kW. Transmits at intervals from 11.15 a.m. 7.0 p.m.—See Prague. 10.15 p.m.—News Bulletin.

BRUSSELS (Belgium) Radio-Belgique. 590 kc/s (509 m.); 20 kW. 5.0 p.m.—Dance Music. 6.0 p.m.—Gramophone Records. 6.45 p.m.—Organ Recital from the Carmelite Church. 7.15 p.m.—Talk: Women and Peace. 7.30 p.m.—Le Journal Parlé. 8.0 p.m.—Chamber Music. 9.0 p.m.—Scenes from "Marlborough s'en va-t-en Guerre"—Comedy (Marcel Achard). Music by Georges Auric. 10.0 p.m.—Le Journal Parlé.

BRUSSELS No. 2 (Belgium) 887 kc/s (338.2 m.); 20 kW. Programme in Flemish. 5.0 p.m.—Gramophone Records. 6.0 p.m.—Dance Music. 6.30 p.m.—Gramophone Records. 7.15 p.m.—Reading (Duhamel). 7.30 p.m.—Le Journal Parlé. 7.55 p.m.—Theatre Review. 8.0 p.m.—Concert of Military Music. 8.45 p.m.—Talk: The Popular Flemish Theatre. 9.0 p.m.—Concert (continued). 9.30 p.m.—Dance Music. 10.0 p.m.—Le Journal Parlé.

BUCHAREST (Romania) Radio-Bucarest. 761 kc/s (394 m.); 16 kW. Transmits at intervals from 12 noon. 6.0 p.m.—Talks on (a) Social Problems, (b) Foreign Affairs. 7.0 p.m.—Gramophone Records. 7.30 p.m.—French Lesson. 8.0 p.m.—"St. George's Night"—Opera in Three Acts (Flondor). In the intervals, News.

BUDAPEST (Hungary) 545 kc/s (550 m.); 23 kW. Transmits at intervals from 9.15 a.m. 6.30 p.m.—Italian Lesson. 7.0 p.m.—Choral Concert. 8.0 p.m. (approx.)—Variety Programme. 9.40 p.m.—Concert from the Hotel St. Gellert, followed by Concert from the Café Ostende.

COLOGNE (Germany) Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW. See Langenberg Programme.

COPENHAGEN (Denmark) 1,067 kc/s (281 m.); 1 kW. Relayed by Kalundborg, 260 kc/s (1,153 m.). Transmits at intervals from 7.30 a.m. (Gymnastics).

3.0 p.m.—Instrumental Concert. Parisian Entry March. Waltz from "Die Jagd nach dem Glück" (Gilbert). Toscanetta (Beccè). Si tu le voulais (Tosti). Selection from "Samson and Delilah" (Saint-Saëns). Hawaiian Serenade A toi (Mc. Leon). Foxtrot (Deppen). Waltz, Accelerationen (Joh. Strauss). Selection from "The Little Dutch Girl" (Kálmán). Violin Solo: Elegy (Ibsen). Serenade (Drigo). Poème (Fibich). S'il vous plait (Dufort). Foxtrot (Cornelius).

3.45 p.m. (in the interval).—Programme for Children. 5.10 p.m.—Talk in German: Augsburg (from the Odense Studio). 5.40 p.m.—Exchange Quotations and Fish Market Prices. 5.50 p.m.—Gramophone Records. 6.20 p.m.—French Language Lesson. 6.50 p.m.—Weather Report. 7.0 p.m.—News and Report of the Non-Political Radio Club. 7.15 p.m.—Time Signal. 7.30 p.m.—Gardening Talk from the Esbjerg Studio. 8.0 p.m.—Town Hall Chimes. 8.2 p.m.—Orchestral Selections of Danish Music. 8.15 p.m.—Recital of Old Danish Songs, with Introductory Talk. 9.30 p.m.—Concerto for Cembalo in C Major (K. P. E. Bach). 9.50 p.m.—Reading of Anecdotes (Carl Arctander). 10.15 p.m.—News Bulletin. 10.30 p.m.—Orchestral Concert of Old Operetta Music. March from "Der arme Jonathan" (Müllöcker). Selection from "Mamzelle Nitouche" (Hervé). Waltz from "Le Prince de Conti" (Lecocq). Selection from "Die Fledermaus" (Joh. Strauss). March from "Boccaccio" (Suppé). 11.5 p.m.—Dance Music from Nimb's Restaurant. 12 midnight (in the interval).—Town Hall Chimes. 12.30 a.m. (Thursday).—Close Down.

CORK (Ireland) (6CK). 1,337 kc/s (225 m.); 1.5 kW. 6.0—10.30 p.m. See Dublin.

DUBLIN (Ireland) (2RN). 725 kc/s (413 m.); 1.5 kW. 1.30—2.0 p.m.—Time, Weather, Stock Report and Gramophone Concert. 6.0 p.m.—Gramophone Records. 6.15 p.m.—Programme for Children. 7.0 p.m.—Gramophone Records. 7.20 p.m.—News Bulletin. 7.30 p.m.—Time and Irish Lesson. 7.45 p.m.—German Lesson. 8.0 p.m.—Concert. The Station Sextet. Mr. and Mrs. P. J. Duffy: Song Recital. Bridie Moloney (Mezzo-Soprano). Mr. McGinnity: Traditional Fiddle. The Station Sextet. 9.30 p.m.—Sponsored Programme. 10.30 p.m.—Time, News, Weather and Close Down.

FRANKFURT-am-MAIN (Germany) 770 kc/s (390 m.); 1.7 kW. Relayed by Cassel, 1,220 kc/s (246 m.). Transmits at intervals from 6.15 a.m. (Mühlacker Relay). 4.30 p.m. (from Wiesbaden).—Orchestral Concert. Turkish March from the Sonata in A Major (Mozart). Prelude to "Lohengrin" (Wagner). Fantasia on Nessler's "Trumpeter von Säckingen" (Nickisch). Intermezzo from "Cavalleria Rusticana" (Mascagni). Mattinata (Leoncavallo). Waltz, Alt-Wien (Kremsler). Overture, "Raymond" (Thomas). Polonaise from "Eugen Onegin" (Tchaikovsky).

6.0 p.m.—Economic Notes. 6.15 p.m.—Talk: Do we need Foreign Credit? 6.40 p.m.—Time and Programme Announcements. 6.45 p.m.—See Mühlacker. 7.10 p.m.—Time, Weather and Economic Notes. 7.15 p.m.—Orchestral Concert of Marches. Die Musik kommt (O. Straus). Marburger Jägermarsch (Reckling). Egerländer Marsch (Kopetzky). Unter dem Grillenbanner (Komzák). Kinderlieder (Ziehrer). Frühlingslied (Vollstedt). Unter dem Doppeladler (I. F. Wagner). Kunst und Natur (Schrammel). Mit vereinten Kräften (Joh. Strauss). Die Bosniaken kommen (I. F. Wagner). The Cadets (Souza). 8.0 p.m.—See Hamburg. 9.30 p.m.—Igor Markevitch Concert. The Composer at the Pianoforte.

Concertino for Pianoforte and Orchestra. Concerto grosso. 10.30 p.m.—Time, Weather, News, and Sports Notes. 10.45 p.m.—See Mühlacker. 11.0 p.m. (approx.)—Close Down.

HAMBURG (Germany) Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.); Flenburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,202 kc/s (232.2 m.). Transmits at intervals from 5.45 a.m. (Time, Weather, Agricultural Notes). 4.15 p.m.—Concert of Noern Music. Little Norwegian suite (Schjelderup). A Poetic Stroll (Jan Brandts-Buys). Concerto for Wind Orchestra and Percussion Instruments, Op. 55 (Edvard Moritz). Prelude for Orchestra and Organ (Fritz Hehl). 5.30 p.m.—Talk: American Foreign Trade. 5.55 p.m.—Dialogue: At the Dispatch-Counter of a Benefit Society. 6.15 p.m.—Variety Programme. 7.0 p.m.—Talk: North German Customs—Festivals from Christmas to Easter. 7.20 p.m.—See Berlin (Königs-Wusterhausen). 7.50 p.m.—Exchange Quotations and Market Prices. 7.55 p.m.—Weather Report. 8.0 p.m.—North German Evening. I. The Hanseatic People. II. The People of Dithmarsch District. III. The Frisians. IV. The Hejdie People. V. The Mecklenburgers. 9.30 p.m.—Moritz Jahn reads from his Book, "Unkepuzn". 10.0 p.m.—News Bulletin. 10.30 p.m.—An Instrumental Cabaret.

HEILSBURG (Germany) 1,685 kc/s (276.5 m.); 75 kW. Relayed by Danzig, 662 kc/s (453 m.). Transmits at intervals from 6.30 a.m. (Gymnastics).

4.10 p.m.—Orchestral Concert. Overture, "Hans Heiling" (Marschner). Andante and Scherzo (Volkmann). From the Fields and Groves of Bohemia (Smetana). Norwegian Dances (Grieg). Concert Waltz (Glazounoff). 5.45 p.m.—Talk for Parents: The Country Continuation School in Summer. 6.10 p.m.—Market Prices. 6.30 p.m.—Choral Concert of Folk Songs. Ich spring an diesem Ringe (Schrenk). Grünet die Hoffnung (Kremsler). Sanctus (Schubert). Aus der Jugendzeit (Radecke). In einem kühlen Grunde (Glück). Folk Melody: Im schönsten Wiesengrunde. 7.0 p.m.—Shorthand Dictation. 7.25 p.m.—Weather Report. 7.30 p.m.—Health Talk: Psychopathy. 8.0 p.m.—See Hamburg. 9.30 p.m.—Variety Programme, with the collaboration of Joseph Plaut. 10.20 p.m.—Weather, News and Sports Notes. 10.30 p.m. (approx.)—See Berlin (Witzleben). 12.30 a.m. (Thursday).—Close Down.

HILVERSUM (Holland) 1,004 kc/s (298 m.); 8.5 kW. 8.40—10.40 a.m.—Programme of the Workers' Radio Society (V.A.R.A.). 8.40 a.m.—Gramophone Records. 10.10 a.m.—Organ Recital. 10.40 a.m.—Programme of the Liberal Protestant Radio Society (V.P.R.O.) Divine Service. 10.55 p.m.—Talk by Mr. Kers. 11.40 a.m.—Gramophone Records. 11.45 a.m.—Talk by Mme. Riemens-Beurslag. 12.15 p.m.—Gramophone Records. 12.40 p.m.—Septet Concert and Gramophone Records. 2.55 p.m.—Gramophone Records. 3.5 p.m.—Talk for Women. 3.55 p.m.—Gramophone Records. 4.0 p.m.—Talk by Mr. G. v. d. Houven. 4.15 p.m.—Talk by C. Schaake-Verkozen. 5.5 p.m.—Gramophone Records. 5.10 p.m.—Programme for Children. 6.40 p.m.—Talk (to be announced). 7.10 p.m.—Mandoline Lesson. 7.40 p.m.—Talk by Mr. Brusse. 8.10 p.m.—Organ Recital. 8.40 p.m.—Johann Strauss Concert, conducted by H. de Groot. Overture, "Die Fledermaus." Waltz, "The Blue Danube." Egyptian

March. Pizzicato Polka. Waltz, Accelerationen. Frisch durch's Leben. Bahn frei. Radetzky March. 9.25 p.m.—"1914—Kaleidoscopic Review of a Barbaric Age"—Sketch, followed by Gramophone Records. 10.45 p.m.—News Bulletin. 10.55 p.m.—Concert. Overture, "Light Cavalry" (Suppé). Torch Dance of the Brides from "Fermors" (Rubinstein). Clog Dance from Czar and Carpenter (Lortzing). Slavonic Rhapsody (Friedemann). Ballet Music from "Faust" (Gounod), followed by Instrumental Music. 12.10 a.m. (Thursday).—Gramophone Records. 12.40 a.m. (approx.)—Close Down.

HUIZEN (Holland) 160 kc/s (1,875 m.); 8.5 kW. 8.40 a.m. till Close Down.—Programme of the Christian Radio Society (N.C.R.V.). 8.40 a.m.—Reading. 8.55—10.10 a.m.—Concert. 11.10 a.m.—Service for Hospitals. 11.40 a.m.—Harmonium Recital and Soprano Solos. 12.40 p.m.—Police Notes. 12.55 p.m.—Gramophone Records. 1.10 p.m.—Vocal and Instrumental Concert. 2.40 p.m.—Gramophone Records. 3.10 p.m.—Reading. 3.40 p.m.—Vocal and Instrumental Concert. 5.10 p.m.—Gramophone Records. 5.25 p.m.—Programme to be announced. 5.40 p.m.—Programme for Children. 6.40 p.m.—Agricultural Talk. 7.25 p.m.—Talk for Young People. 7.55 p.m.—Talk by Mr. Kruihof. 8.10 p.m.—Police Notes. 8.25 p.m.—Gramophone Records. 8.40 p.m.—Programme arranged by the Christian Travellers' Society. Three Choral Preludes for Organ (J. S. Bach): (a) Herzlich that mich verlangen, (b) Alle Menschen müssen sterben, (c) Ich ruf zu dir, Herr Jesu Christ. Sonata No. 6 in E for Violin and Organ (Händel). Soprano Solos, with Organ accompaniment: (a) Jesu-lied (Hildach), (b) Maria Wiegeli-ed (Reger). Famous Romance (Kahnt). Chanson triste (Tchaikovsky). Pani Angelicus (Frankk). Address. Choral Selections: (a) Caro mio ben (Giordani), (b) Largo (Händel), (c) Die Ehre Gottes in der Natur (Bethoven), (d) Das ist der Tag des Herrn (Kreutzer). Soprano, Violin and Pianoforte Selections from "Il re pastore" (Mozart). Orientale for Violin and Organ (Cui). Address. Prelude, Fugue and Variations for Organ (Frankk). Aria for Soprano, with Pianoforte and Flute Obligato (J. S. Bach). Prelude and Allegro for Violin and Organ (Pugnani-Kreisler). Sonata No. 2 for Organ (Mendel-sohn). Two Arias from "The Messiah" (Händel). News and Gramophone Records after the Programme.

KALUNDBORG (Denmark) Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW. See Copenhagen Programme.

KATOWICE (Poland) Polskie Radio. 734 kc/s (408 m.); 16 kW. Transmits at intervals from 11.40 a.m. 7.0 p.m.—Miscellaneous Announcements, Programme Notes, Theatre Review and Amusement Guide. 7.15 p.m.—Talk: The Silesian Housewife. 7.40 p.m.—News and Sports Notes. 8.0 p.m.—Talk. 8.15 p.m.—Talk on Music. 8.30 p.m.—Concert. 10.0 p.m.—Reading. 10.15 p.m.—Concert. 10.50 p.m.—Weather, Programme Announcements in French and News. 11.0 p.m.—The Letter Box in French for Foreign Listeners.

KAUNAS (Lithuania) Radio Kaunas. 155 kc/s (1,935 m.); 7 kW. 5.30 p.m.—Musical Programme. 6.0 p.m.—Talk on Wilno. 6.30 p.m.—Talk by Dr. Jurgelionis. 6.50 p.m.—News in Esperanto. 7.0 p.m.—Time, Weather and News. 7.30 p.m.—Musical Programme. 9.0 p.m.—Talk on Birds. 9.20 p.m.—Musical Programme.

KÖNIGSBERG (Germany) Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW. See Heilsberg Programme.

Programmes for Wednesday—(Cont.)

LAHTI (Finland)
167 kc/s (1,706 m.); 54 kW. Relayed by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m.
6.35 p.m.—Violin Recital. *Serenade* (Ropp). *The Flight of the Bumble-Bee* (Rimsky-Korsakoff). *Waltz in A Major* (Brahms). *Zapatea* (Sarasate).
7.0 p.m.—Talk (to be announced).
7.20 p.m.—Song Recital.
7.40 p.m.—Dance Music.
8.0 p.m.—Finnish Songs for Clarinet and Two Violins.
8.15 p.m.—Dance Music.
8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)
Westdeutscher Rundfunk. 615 kc/s (473 m.); 17 kW. Relayed by Aachen, Cologne and Münster, 1,319 kc/s (227 m.).
Transmits at intervals from 6.45 a.m. (Physical Exercises).
5.0 p.m.—See Frankfurt.
6.15 p.m.—Talk: A Journey to Spain—In Salamanca.
6.40 p.m.—Talk for Women: Educational Problems and Individual Psychology.
7.0 p.m.—Weather, Time, Economic and Sports Notes.
7.15 p.m.—Topical Talk.
7.30 p.m.—Talk for Workers: The State Welfare Laws.
7.55 p.m.—News Bulletin.
8.0 p.m.—See Hamburg.
10.0 p.m.—News, Sports Notes, Concert and Dance Music.
12 midnight (approx.)—Close Down.

LEIPZIG (Germany)
Mitteldeutscher Rundfunk. 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.).
Transmits at intervals from 9.45 a.m.
7.0 p.m.—Talk: The Problems of Retail and Wholesale Trade in the Coming Economic Situation.
7.30 p.m.—My Songs for Everybody—by Walter Simlinger.
8.0 p.m.—See Hamburg.
9.30 p.m.—We introduce . . .
10.0 p.m.—News Bulletin.
10.15 p.m. (approx.)—Dance Music.
11.30 p.m. (approx.)—Close Down.

LJUBLJANA (Yugoslavia)
Radio-Ljubljana. 522 kc/s (574.7 m.); 2.8 kW.
Transmits at intervals from 12.15 p.m.
6.0 p.m.—Orchestral Concert.
7.0 p.m.—Talk (to be announced).
7.30 p.m.—Russian Lesson.
8.0 p.m.—See Prague.
10.0 p.m.—Weather and News.

LWÓW (Poland)
788 kc/s (381 m.); 21 kW.
Transmits at intervals from 11.58 a.m.
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—See Warsaw.
7.40 p.m.—News Bulletin.
8.0 p.m.—Literary Talk.
8.15 p.m.—See Warsaw.
8.30 p.m.—Concert and Literary Reading relayed from Wilno, 815 kc/s (368.1 m.).
10.0 p.m.—See Warsaw.
11.0 p.m.—Dance Music from the Barateła Theatre.
12 midnight (approx.)—Close Down.

MADRID (Spain)
Union Radio (EAJ7). 707 kc/s (424 m.). 2 kW.
Transmits at intervals from 8.0 a.m. (Topical Review).
7.0 p.m.—Chimes, Exchange, Market Prices and Programme for Women.
7.30 p.m.—Relay from the Campos Hall.
8.10 p.m.—Elementary Typewriting Lesson.
8.25 p.m.—News Bulletin.
8.30—9.30 p.m.—Interval.
9.30 p.m.—Chimes, Time, Exchange and *Cello Recital*. *Andante* (Bach). *Cradle Song* (Dvorak). *Gavotte* (Valentini Piatti). *Tonadilla* (Laserna-Cassado). *The Flight of the Bumble Bee* (Rimsky-Korsakoff). *Song without Words* (Mendelssohn). *Aria* (Bach). *Bolero* (Rubio).
10.15 p.m.—Band Concert from the Hotel Nacional, followed by News.
12.0 midnight—Chimes and Close Down.

MILAN (Italy)
Ente Italiano Audizioni Radiofoniche. 590 kc/s (501 m.); 8.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.) and Genoa, 950 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m. (Giornale radio).
7.0 p.m.—Agricultural Report.
7.5 p.m.—Announcements.
7.15 p.m.—Musical Selections.
7.35 p.m.—Gramophone Records.
8.0 p.m.—Time, Announcements, Giornale radio and Weather.
8.30 p.m.—Medical Talk.

8.45 p.m.—A Comedy in One Act.
9.20 p.m.—Symphony Concert, conducted by Arrigo Pedrollo. Selections from the First Suite (Massenet). Concerto for Cello and Orchestra (Dvorak). Talk: The Scientific Organisation of Work. *Momento mistico* for Violin Cello, Soloists, String Orchestra, Organ and Harp (Paribeni). Overture, "The Mastersingers" (Wagner).
11.0 p.m.—Giornale radio, and Concert from the Cova Restaurant.
11.55 p.m. (approx.)—News.

MORAVSKÁ-OSTRAVA (Czechoslovakia)
1,139 kc/s (263 m.); 11 kW.
Transmits at intervals from 11.0 a.m.
7.0 p.m.—See Prague.
10.15 p.m.—Programme Announcements.

MOTALA (Sweden)
221.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme.

MÜHLACKER (Germany)
Süddeutscher Rundfunk. 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.).
Transmits at intervals from 6.15 a.m. (Time and Weather).
4.30 p.m.—Concert by the Berlin Salvation Army Band.
6.0 p.m.—Time, Weather and Agricultural Notes.
6.15 p.m.—Talk: In Primeval Forests.
6.45 p.m.—(From Mannheim) Talk: The B. J. Z. Bank for International Payments.
7.15 p.m.—See Frankfurt.
8.0 p.m.—See Hamburg.
9.30 p.m.—See Frankfurt.
10.30 p.m.—Programme Announcements, News and Weather.
10.45 p.m.—Concert by the Mildner String Quartet of Vienna. Quartet in E Flat Major, Op. 51 (Dvorak). Quartet in G Minor, Op. 10 (Debussy).
11.0 p.m. (approx.)—Close Down.

MUNICH (Germany)
563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserlautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m. (Gymnastics).
7.5 p.m.—Talk for Women.
7.25 p.m.—Gramophone Records—"Orpheus in the Underworld" (Offenbach), in Abridged Form.
8.0 p.m.—See Hamburg.
9.30 p.m.—Orchestral Concert. Prelude and Fugue (Mozart). Music for String Orchestra: Introduction, Vivace and Larghetto (Schiffman). Trio Intermezzo (P. Juon). Suite: Aria, Minuet, Sarabande and Gavotte (L. Spiess).
10.20 p.m.—Time, Weather, News and Sports Notes.
10.40 p.m.—From Wave to Wave—Relay of Foreign Stations.

OSLO (Norway)
Kringkastingsselskapet. 286 kc/s (1,071 m.); 75 kW. Relayed by Fredrikstad 815 kc/s (363 m.); Hamar 511 kc/s (587 m.); Notodden 671 kc/s (447.1 m.); Porsgrund 662 kc/s (453 m.); and Rykan 671 kc/s (447.1 m.).
Transmits at intervals from 11.15 a.m. (Divine Service).
5.0 p.m.—Concert from the Wilhelm Olsen Restaurant.
6.0 p.m.—Programme for Boys.
6.30 p.m.—French Lesson.
7.0 p.m.—Announcements, Weather and News.
7.30 p.m.—Talk from Oslo University: Norway and Europe in the 14th and 15th Centuries.
8.0 p.m.—Time Signal.
8.2 p.m.—Orchestral Concert. Overture, "The Magic Flute" (Mozart). Ballet Suite (Gluck). Dance of the Sylphs (Berlioz). Larghetto from Symphony No. 2 (Beethoven). Selection from "Coq d'or" (Rimsky-Korsakoff).
9.0 p.m.—Programme to be announced.
9.35 p.m.—Weather, News and Topical Talk.
10.5 p.m.—Bridge Lesson from Aalesund 671 kc/s (447.1 m.).
10.35 p.m.—Song Recital.

PARIS (France)
Eiffel Tower (FLE). 207 kc/s (1,445 m.); 15 kW. Time Signals (on 2,650 m., 113 kc/s) at 10.25 a.m. and 11.25 p.m. (preliminary and 6-dot signals).
6.45 p.m.—Le Journal Parlé.
8.20 p.m.—Meteorological Forecast.
8.30 p.m.—Symphony Concert conducted by M. Edouard Flament. Selections (de Séverac-Chapelier): (a) Chants de Matelots, (b) Ma

poupée chérie, (c) Mimi en marquise, (d) Vieille boîte à musique, (e) Minyoneta. Violin Solo. Overture, "Poet and Peasant" (Suppé-Salabert).
9.0 p.m.—Programme for Children.

PARIS (France)
Poste Parisien. 914 kc/s (329 m.); 1.2 kW.
9.0 a.m.—Picture Transmission.
8.25 p.m.—Gramophone Records; News.
9.0 p.m.—Concert with the collaboration of Mlle. Marie-Thérèse of the Opéra-Comique, in Five Popular Greek Melodies (Ravel): (a) *La-bas vers l'église*, (b) *Quel galet!* (d) *Chanson des cueilleuses de lentilles*, (e) *Tout gai!* Overture, "Les Saltimbanques" (Ganone). Sonata for Pianoforte (Filip Lazar). Selection from "La Périche" (Offenbach). Venetian Barcarolle (Haydn-Wood). Selection from "Rip van Winkle" (Planquette). Lyric Epigrams of Japan, The Hai-Kai, for Flute, Violin, Viola, Cello and Pianoforte (Jacques Pills). Selection from "La Rôtisserie de la reine Pédauque" (Lévaillé). Sérénade à Ninon (Lacôme). Selection from "La Hussarde" (Fouadin). *Waltz, A Summer Evening* (Waldteufel). *March, Comrades of the Legion* (Souza).
12.30 p.m.—Gramophone Records.
1.0 p.m.—Exchange Quotations and News.
1.5 p.m.—Gramophone Concert of French Opera Music. In the intervals at 1.30 p.m.—Exchange Quotations and at 2 p.m.—Exchange and Market Prices.
3.30 p.m.—Exchange Quotations.
5.55 p.m.—Exchange and Market Prices.
6.0 p.m.—Gramophone Records.
6.30 p.m.—Agricultural Report and Racing Results.
7.0 p.m.—Talk on Horticulture.
7.15 p.m.—Talk: The Fourth Century of the "Collège de France."
7.30 p.m.—Medical Talk: Vitamins.
7.45 p.m.—Commercial Prices, Economic and Social Notes and News.
8.0 p.m.—Literary Readings: Public Life in the Seventeenth Century, according to the Correspondence of the Period.
8.30 p.m.—Sports Results.
8.35 p.m.—Fashion Review.
8.40 p.m.—A Review.
8.45 p.m.—"Les femmes qui pleurent"—Play (Siraudin-Thiboust).
9.15 p.m.—Press Review, News and Time Signal.
9.30 p.m.—Songs and Commentary by M. Dickson: Two Poets—Paul Marinier and Georges Milandry.
10.0 p.m.—Gramophone Records.

POZNAN (Poland)
896 kc/s (335 m.); 1.9 kW. Also relayed on 9.830 kc/s (30.5 m.) from 8.30—10.0 p.m.
Transmits at intervals from 7.15 a.m.
6.45 p.m.—Topical Talk.
7.0 p.m.—Bolshevist Report.
7.30 p.m.—Musical and Literary Programme for Soldiers.
8.0 p.m.—Review of Books.
8.15 p.m.—Miscellaneous Items and News.
8.30 p.m.—Concert. Wedding March (Mendelssohn). Sérénade, Eine kleine Nachtmusik (Mozart). Soprano Solos: (a) *Aria* from "Linda di Chamounix" (Donizetti), (b) *Aria* from "Semiramide" (Rossini). Intermezzo from "Cavalleria Rusticana" Barcarolle from "The Tales of Hoffmann" (Offenbach). Concerto for Violin (Aulin). Soprano Solos (Rachmaninoff). Violin Solos: (a) Spanish Dance (de Falla), (b) *Le Zéphyre* (Hubay). *Potpourri of Polish Melodies* (Sikorsky).
10.0 p.m.—Time, News, Sports and Police Notes.
10.15 p.m.—Dance Music from the Café Esplanade.
10.30 p.m. (approx.)—Close Down.

PRAGUE (Czechoslovakia)
Stranice. 617 kc/s (487 m.); 5.5 kW.
Transmits at intervals from 11.15 a.m.
7.0 p.m.—Time and News.
7.5 p.m.—Tambourine Concert.
7.30 p.m.—Opera Talk.
8.0 p.m.—Concert by the Berlin Philharmonic Orchestra, conducted by Dr. G. Furtwängler, relayed from the Lucerna Palace. In the Interval, Reminiscences of Mahler (Ferberster).
10.0 p.m.—Time, News and Sports Notes.
10.15 p.m.—Talk: The Difficulties

of Rationalisation in Public Administration.
10.25 p.m.—News, Theatre Notes and Programme Announcements.

RIGA (Latvia)
Radio Riga. 572 kc/s (525 m.); 13 kW.
Transmits at intervals from 11.0 a.m. (News).
7.0 p.m.—Weather Report.
7.3 p.m.—Orchestral Concert of *Waltzes*. Wine, Women and Song (Joh. Strauss). Springtime of Love (Vollstedt). Un premier bouquet Waldteufel). *Waltz* (Jos. Strauss). *Waltz* from "The Enchanted Lake" (Tchaikovsky). *Waltz* from "The Count of Luxembourg" (Lehar).
8.30 p.m.—Songs and Trumpet Solos.
9.0 p.m.—Weather Report.
9.5 p.m.—Orchestral Music. *Andante cantabile* (Tchaikovsky). Overture, "Rienzi" (Wagner).
9.30 p.m.—Variety Music.
11.0 p.m. (approx.)—Close Down.

ROME (Italy)
Ente Italiano Audizioni Radiofoniche (IRO). 680 kc/s (441 m.); 75 kW. Relayed by Naples, 905 kc/s (332 m.), and 2RO, 11,810 kc/s (25.4 m.).
Transmits at intervals from 8.15 a.m. (Giornale radio and Weather for Shipping).
5.0—6.30 p.m.—Variety Concert. Overture "Pique Dame" (Suppé). Nocturne, Op. 70 (Martaucchi). *Waltz*, "The Nightingale" (Boccaccio). Suite *gogliardica* (Amadei). *Nights in the North* (Vescey). *Hymn to the Sun*, from "Iris" (Mascagni). *Dance Music*.
7.10 p.m. (from Naples)—Harbour Notes.
7.15 p.m.—Agricultural Report.
7.25 p.m.—Giornale radio; Announcements.
7.50 p.m.—Gramophone Records.
8.10 p.m.—Giornale radio; Report of the International Institute of Agriculture (in Italian, French, English, German and Spanish).
8.30 p.m.—Time and Announcements.
8.32 p.m.—Medical Talk.
8.45 p.m.—Theatre Notes.
9.0 p.m. (approx.)—Relay of an Opera from the Royal Theatre or the Teatro San Carlo, Naples. In the intervals: Announcements and Reading of a Short Story.
10.55 p.m. (approx.)—News.

SCHENECTADY (U.S.A.)
General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,530 kc/s (31.48 m.), and by W2XAD on 15,340 kc/s (19.56 m.).
Transmits at intervals from 12.45 p.m.
11.15 p.m.—Capitol Trio.
11.45 p.m.—Uncle Jim.
12 midnight.—Time Signal.
12.1 a.m. (Thursday)—Market Prices and News.
12.15 a.m.—Health Talk.
12.20 a.m.—Weather Report.
12.21 a.m.—Legends of the East—Orchestral Selections.
12.44 a.m.—Time Signal.
12.45 a.m.—Programme from New York.
1.0 a.m.—Play Gypsies Play!
1.15 a.m.—Speed Blenders, Willard Robison.
1.30 a.m.—Chevrolet Programme.
2.0 a.m.—Programme from New York.
2.15 a.m.—The Song Hit.
2.30 a.m.—Programme from New York. In the interval at 5.0 a.m.—Sleepy Hall and Hotel DeWitt Clinton Orchestra, Albany, N.Y.
6.30 a.m.—Doc Peyton and Hotel Kenmore Orchestra, Albany, N.Y.
7.0 a.m. (approx.)—Close Down.

SOTTENS (Switzerland)
Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW.; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.).
Transmits at intervals from 12.25 p.m.
4.0 p.m. (from Lausanne)—Concert.
5.30 p.m. (from Lausanne)—Programme for Children.
6.30 p.m. (from Lausanne)—Gramophone Records.
7.0 p.m.—Time and Weather.
7.2 p.m. (from Lausanne)—News.
7.10 p.m. (from Lausanne)—Gastronomical Talk.
7.30 p.m. (from Lausanne)—Talk on the Swiss Dairy Industry.
8.0 p.m. (from Lausanne)—"Tannhäuser"—Opera in Three Acts (Wagner) on Gramophone Records.
10.0 p.m.—News Bulletin.
10.30 p.m. (approx.)—Close Down.

STOCKHOLM (Sweden)
Radiotjänst (SASA). 659 kc/s (436 m.); 75 kW. Relayed by Boden, 244 kc/s (1,229.5 m.); Göteborg 932 kc/s (322 m.); Hürby

1,166 kc/s (257 m.); Motala, 221.9 kc/s (1,352 m.); Östersund, 389 kc/s (770 m.); Sundsvall, 554 kc/s (542 m.).
Transmits at intervals from 7.15 a.m. (Gymnastics).
7.0 p.m.—Weather Report, followed by Cabaret Programme.
7.30 p.m.—Talk on Michael Faraday, relayed from Uppsala, 662 kc/s (453.2 m.).
8.0 p.m.—Symphony Concert relayed from Göteborg. Symphony in F Major No. 6 (Beethoven). Der schwarze Ritter (Söderman).
9.40 p.m.—The Great City—Drama (Hermann Kesser).
10.20 p.m.—Dance Music.
11.0 p.m.—(approx.)—Close Down.

STRASBOURG (France)
Radio-Strasbourg (PTT). 869 kc/s (345 m.); 15 kW.
Transmits at intervals from 11.30 a.m.
5.0 p.m.—Orchestral Concert. Festive Overture (Lortzing). Pesther-Waltzer (Lanner). The Way to the Heart (Lincke). Ballet Suite (Poppy). Cavatina (Raff). Selection from "Véronique" (Messager).
5.45 p.m.—Talk in French: Persian Carpets.
6.0 p.m.—Orchestral Music.
6.45 p.m.—Talk in German: Through Alsace-Lorraine.
7.0 p.m.—Orchestral Concert. Selections from "Die Fledermaus" (Joh. Strauss). *Liebeslied* (Schubert). *Waltz* from "The Count of Luxembourg" (Lehar).
7.30 p.m.—News in French and German.
7.45 p.m.—Gramophone Records.
8.30 p.m.—"Alexander's Feast"—Ode (Dryden, Music by Handel), relayed from the Palais des Fêtes.
10.30 p.m.—Gramophone Dance Records.
12 midnight.—Close Down.

TOULOUSE (France)
Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m.
6.0 p.m.—Musical Programme.
6.30 p.m.—News and Exchange.
6.45 p.m.—Musical Programme.
7.30 p.m.—News; Racing Results; Exchange and Market Prices.
7.45 p.m.—Musical Programme.
8.55 p.m.—Fashion Review.
9.0 p.m.—Choral and Orchestral Concert.
10.0 p.m.—Concert of *Operetta Songs*. *Arias* from (a) "Les Cloches de Corneville" (Planquette), (b) "La Mascotte" (Audran), (c) "Phi-Phi" (Christiné), (d) "Comte Obligado" (Moretti), (e) "The Czardas Princess" (Kálmán).
10.30 p.m.—Choral and Orchestral Concert (continued).
10.45 p.m.—News Bulletin.
11.0 p.m.—Chansonnets.
11.15 p.m.—North African News.
11.30 p.m.—Military Music.
11.45 p.m.—Dance Music.
12 midnight.—Weather and Announcements.

VIENNA (Austria)
Radio-Wien. 581 kc/s (517 m.); 20 kW. Relayed by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
7.0 p.m.—Elementary French Lesson.
7.25 p.m.—Time, Weather, Alpine Weather and Programme Announcements.
7.30 p.m.—Sonka in a Programme of his own Works with Introductory Talk.
8.5 p.m.—"The Seven Swabians"—Opera in Three Acts (Millocker). News in an interval.

WARSAW (Poland)
Polskie Radio. 212 kc/s (1,441 m.); 158 kW.
Transmits at intervals from 11.40 a.m.
5.45 p.m.—Orchestral Concert.
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—Agricultural Correspondence and Quotations.
7.25 p.m.—Gramophone Records.
7.35 p.m.—Programme Notes.
7.40 p.m.—Radio Journal.
7.55 p.m.—Gramophone Records.
8.0 p.m.—Review of New Books.
8.15 p.m.—Talk on Music.
8.30 p.m.—Concert and Literary Reading relayed from Wilno. 815 kc/s (368.1 m.). In the interval, Theatre Review and Reading from the Works of Rudyard Kipling.
10.0 p.m.—Dialogue.
10.15 p.m.—Musical Programme.
10.50 p.m.—Weather, Police and Sports Notes.
11.0 p.m.—Dance Music and Light Musical Selections.
12 midnight (approx.)—Close Down.

PROGRAMMES FOR THURSDAY (April 23)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME.

ALGIERS (N. Africa)
825.3 kc/s (363.4 m.); 13 kW.
Transmits at intervals from 1.30 p.m.
8.15 p.m.—Physical Culture Lesson.
9.10 p.m.—News Bulletin.
9.15 p.m.—Guitar and Mandoline Concert. In the Interval, Songs and Light Monologues.
10.0 p.m.—Humorous Programme.
10.30 p.m.—Au bal mûsette.
10.50 p.m.—Songs and Monologues.
11.15 p.m.—Soloist Selections.
11.30 p.m.—Gramophone Records.

BARCELONA (Spain)
Radio-Barcelona (E.A.J.). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.0 a.m. (Topical Review.)
6.0 p.m.—Programme for Children.
6.30 p.m.—Trio Music.
7.0 p.m.—Dance Music from the Hotel Ritz.
8.30 p.m.—Elementary English Lesson.
9.0 p.m.—Chimes, Weather and Exchange.
9.5 p.m.—Orchestral Music.
9.20 p.m.—Modern Dance Music.
10.5 p.m.—"Book Day"—Programme dedicated to Miguel de Cervantes Saavedra—Readings, Talks and Recitations.
10.30 p.m.—Vocal and Instrumental Concert.
11.30 p.m.—Gramophone Records.
12.0 midnight (approx.)—Close Down.

BELGRADE (Yugoslavia)
697 kc/s (430.4 m.); 3 kW.
Transmits at intervals from 11.30 a.m.
6.0 p.m.—Recital of Yugoslavian Songs.
7.30 p.m.—French Lesson.
8.0 p.m.—Medical Talk.
8.30 p.m.—See Ljubljana.
10.30 p.m.—News and Sports Notes.
10.50 p.m.—Orchestral Concert. Selections from "Where the Lark sings" (Lehar). In Wien hab' ich einmal ein Madel geliebt and Waltz from "Zwei Herzen im drei-viertel Takt" (Stolz).
11.30 p.m.—Gramophone Records.
12.0 midnight (approx.)—Close Down.

BERLIN (Germany)
Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW.
Transmits at intervals from 5.45 a.m. (Hamburg Relay).
4.30 p.m.—See Berlin (Witzleben).
6.0 p.m.—Talk: Workers' Law.
6.30 p.m.—Advanced English Lesson.
7.5 p.m.—See Berlin (Witzleben).
7.30 p.m.—Agricultural Talk: "The Provision of Milk in Large Towns."
7.55 p.m.—Weather for Farmers.
8.0 p.m.—See Berlin (Witzleben).
8.30 p.m.—See Berlin (Witzleben).
9.0 p.m.—See Munich.
10.20 p.m.—See Berlin (Witzleben).
12.30 a.m. (Friday)—Close Down.

BERLIN (Germany)
Witzleben. 716 kc/s (418 m.); 1.7 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics).
4.30 p.m.—Concert of Light Music. Overture, "Carnival" (Glazounoff). Reminiscences of Offenbach's "La Vie Parisienne" (Fétras). Peer Gynt Suite No. 1 (Grieg). Waltz from "Sleeping Beauty" (Tchaikovsky). Potpourri Contrasts (Borchert). March Fantasia, Hals-und Beinbruch (Morchna).
5.50 p.m.—Talk for Young People.
6.10 p.m.—Hansjürgen Wille reads from his own Works.
6.40 p.m.—Mezzo-Soprano Recital of Old Songs.
7.5 p.m.—Legal Talk.
7.30 p.m.—Concert of Light Music from the Hotel Adlon.
8.30 p.m.—Topical Programme.
9.0 p.m.—News, Sports Notes.
9.10 p.m.—"The Sons of Bach"—Concert, conducted by Dr. Ludwig Landshoff. Symphony in D Minor (W. F. Bach). Klöpstock's "Morgengesang am Schöpfungs-tage"—for Two Sopranos, Choir and Orchestra (C. Ph. E. Bach). Cembalo Concerto in D Major (C. Ph. E. Bach). Duet from "La Ciemenza di Scipione" (J. C. Bach). Three Scenes for Two Sopranos, Choir and Orchestra from "Amor vincitoe" (J. C. Bach).
10.20 p.m.—Weather, News and Sports Notes.
10.35 p.m. (approx.)—Dance Music from the Roof Garden of the Café Berlin.
12.30 a.m. (Friday)—Close Down.

BORDEAUX-LAFAYETTE (France)
(PTT). 986 kc/s (304 m.); 35 kW.
Transmits at intervals from 12.45 p.m.
7.30 p.m.—News and Exchange.
7.40 p.m.—Talk: The Law regarding Accidents at Work.
7.55 p.m.—Result of the Prize Draw and the Charades Competition.
8.0 p.m.—Talk on Wine.
8.15 p.m.—Charades.
8.30 p.m.—"The Duel"—Comedy in Three Acts (Lavedan). After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)
1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.30 a.m.
7.0 p.m.—See Prague.
7.5 p.m.—Orchestral Concert.
7.15 p.m.—See Prague.
10.15 p.m.—Programme Announcements.
10.20 p.m.—See Prague.

BRESLAU (Germany)
923 kc/s (325 m.); 1.7 kW.
Relayed by Gleiwitz, 1,184 kc/s (253 m.).
Transmits at intervals from 7.0 a.m. (Alarm and Gymnastics).
7.0 p.m.—Weather for Farmers.
7.5 p.m.—"Lehariana"—Gramophone Records of Lehár's Operettas.
8.0 p.m.—Weather Forecast.
8.5 p.m.—Talk: Civic Education.
8.30 p.m.—Concert by the Silesian Philharmonic Orchestra. Overture, "Lord Spleen" (Mark Lothar). Petite Suite (Debussy). Humorous Serenade (Haas). Dance Suite (Frankenstein). Spanish Caprice (Rimsky-Korsakoff).
9.40 p.m.—News Bulletin.
9.50 p.m.—Cello Recital by Otto Urack. Concerto in G Minor for Cello and Orchestra (Urack).
10.15 p.m.—Time, Weather, News, Sports Notes and Programme Announcements.
10.30 p.m.—Talk arranged by a Silesian Workers' Rambling Club—Plans for the Week-end.
10.40 p.m.—Dance Music.
12.30 a.m. (Friday)—Silent Night.

BRNO (Czechoslovakia)
878 kc/s (342 m.); 3 kW.
Transmits at intervals from 11.15 a.m.
7.5 p.m.—Talk for Workers: Insurance.
7.15 p.m.—See Prague.
9.30 p.m.—Brass Band Concert.
10.0 p.m.—See Prague.
10.15 p.m.—News.
10.20 p.m.—See Prague.

BRUSSELS (Belgium)
Radio-Belgique. 590 kc/s (509 m.); 20 kW.
5.0 p.m.—Orchestral Concert. Overture, "The Marriage of Figaro" (Mozart). La hile au cheveu de lin (Debussy). Waltz, "The blue Danube" (Joh. Strauss). Le cygne (Saint-Saëns). Travel Reminiscences (Albéniz).
5.45 p.m.—Programme for Children.
6.15 p.m.—Gramophone Records.
7.15 p.m.—Talk: Root Cultivation and Political Economy.
7.30 p.m.—Le Journal parlé.
8.0 p.m.—Orchestral Concert, conducted by M. Meulemans. Symphony (Brahms). Concerto for Pianoforte and Orchestra (Schumann). Talk. La jeunesse d'Her-cule (Saint-Saëns). Gramophone Records of Galli-Curci (Rimsky-Korsakoff): (a) Le coq d'or, (b) Hindu Song. Pastorale d'été (Honegger). Bourrice fantasque (Cnabrier).
10.0 p.m.—Le Journal parlé.

BRUSSELS No. 2 (Belgium)
887 kc/s (338.2 m.); 20 kW.
Programme in Flemish.
5.0 p.m.—Concert from the Works of Lecocq and Messenger.
5.45 p.m.—Programme for Women.
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk: The Flemish Language.
7.30 p.m.—Le Journal parlé.
7.55 p.m.—Sports Review.
8.0 p.m.—Concert. In the interval, Talk: Old Prisons.
10.0 p.m.—Le Journal parlé.

BUCHAREST (Romania)
Radio-Bucarest. 761 kc/s (394 m.); 16 kW.
Transmits at intervals from 12 noon.
6.0 p.m.—Talks on Art and Music.
7.0 p.m.—Gramophone Records.
7.30 p.m.—English Lesson.

8.0 p.m.—Theodor Burada Violin Recital.
8.30 p.m.—Recitations.
8.45 p.m.—Orchestral Concert. Works of Candella and Jora.
9.15 p.m.—Song Recital.
9.45 p.m.—News Bulletin.

BUDAPEST (Hungary)
545 kc/s (550 m.); 23 kW.
Transmits at intervals from 9.15 a.m.
6.45 p.m.—"The Flying Dutchman"—a Recital by J. Kertesz.
7.15 p.m.—English Lesson.
7.45 p.m.—Orchestral Concert from the High School for Music. Suite (Radnai). Symphonic Variations for Pianoforte (César Franck). Concerto for Violin (Boccherini). Symphonic Poem, L'apprenti sorcier (Dukas), followed by Concert by a Tzigane Orchestra from the Hotel Britannia.

COLOGNE (Germany)
Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW.
See Langenberg Programme.

COPENHAGEN (Denmark)
1,067 kc/s (281 m.); 1 kW.
Relayed by Kalundborg, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m. (Gymnastics).
3.30 p.m.—Orchestral Concert from the Wivel Restaurant.
5.0 p.m.—Programme for Boys.
5.40 p.m.—Exchange Quotations and Fish Market Prices.
5.50 p.m.—Talk (from the Nykøbing Studio): Jans Addams.
6.20 p.m.—English Language Lesson.
6.50 p.m.—Weather Report.
7.0 p.m.—News and Report of the Jutland Listeners' Association.
7.15 p.m.—Time Signal.
7.30 p.m.—Talk: Your Future—the Choice of a Career.
8.0 p.m.—Town Hall Chimes.
8.2 p.m.—Twenty-Seventh Concert from the Axelborg Studio. Part I: Classical Music. Three Selections from "Wassermusik" (Händel). Recitative and Aria from "Xerxes" (Händel). Concerto No. 22, in A Minor, for Violin and Orchestra (Viotti). Songs: (a) Il mio bel foco (Benedetto Marcello), (b) Nel cor pui non (Paisiello), (c) La zingara (Donizetti). Part II: French Music. Overture, "The Black Domino" (Auber). Songs: (a) Aria from "The Prophet" (Meyerbeer), (b) Aria: "Softly awakes my heart, from Samson and Delilah" (Saint-Saëns). Bourrée fantasque (Chabrier). Habanera and Seguidilla from "Carmen" (Bizet). Marche héroïque (Saint-Saëns).
10.0 p.m.—News Bulletin.
10.15 p.m.—Dance Music from the Industri Restaurant.
12 midnight (in an interval)—Town Hall Chimes.
12.15 a.m. (Friday)—Close Down.

CORK (Ireland)
(GCK). 1,337 kc/s (225 m.); 1.5 kW.
6.0—10.30—See Dublin.

DUBLIN (Ireland)
(2RN). 725 kc/s (413 m.); 1.5 kW.
1.30—2.0 p.m.—Time, Weather, Stock Report and Gramophone Concert.
6.0 p.m.—Gramophone Records.
6.15 p.m.—Programme for Children.
7.0 p.m.—Gramophone Records.
7.10 p.m.—News Bulletin.
7.30 p.m.—Time and French Lesson.
7.45 p.m.—Concert. Sydney Roschill (Pianist). Peter Dunne (Tenor). The Station Celeste Orchestra. Talk by Mr. E. Bohane, Director of the Royal Dublin Society: The Spring Show. Mme. K. A. McCaffery (Soprano).
9.0 p.m.—"The Vagabonds"—an Original Musical Comedy.
9.30 p.m.—Sponsored Programme.
10.30 p.m.—Time, News, Weather and Close Down.

FRANKFURT-am-MAIN (Germany)
770 kc/s (390 m.); 1.7 kW.
Relayed by Cassel, 1,220 kc/s (246 m.).
Transmits at intervals from 6.15 a.m. (Mühlacker Relay).
6.45 p.m.—Talk: Modern Poisons.
7.10 p.m.—Time, Weather and Economic Notes.
7.15 p.m.—Astronomical Talk.
7.45 p.m.—See Mühlacker.
9.0 p.m.—"Magdalena"—Folk Play in Three Acts (Ludwig Thoma).
10.30 p.m.—Time, Weather, News and Sports Notes.
10.50 p.m.—Dance Music.
12 midnight (approx.)—Close Down.

HAMBURG (Germany)
Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.); Flensburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m. (Time, Weather, Agricultural Notes).
6.20 p.m.—Variety Programme.
7.0 p.m.—Programme to be announced.
7.25 p.m.—Talk: National Health as a Talisman for World Peace.
7.50 p.m.—Exchange Quotations and Egg Market Prices.
7.55 p.m.—Weather Report.
8.0 p.m.—"Simon von Utrecht"—a Wireless Play (Hans Leip. Music by Alex Grimpe) in Hans-eatic Dialect, followed by Concert of Hanseatic Music. Hamburg Hymn (Beyer). Störtebeker-Lied (arr. Maasz). Hanseatic Suite (Scheffler).
9.45 p.m.—News Bulletin.
10.15 p.m.—Relay of Foreign Stations.
11.0 p.m.—Concert from the Ostermann Restaurant.

HEILSBERG (Germany)
1,085 kc/s (276.5 m.); 75 kW.
Relayed by Danzig, 662 kc/s (453 m.).
Transmits at intervals from 6.30 a.m. (Exercises).
4.15 p.m.—Wind Instrument Concert. Geschwindmirsch (Blankenburg). Waltz, Mondnacht auf der Aister (Fetras). Overture, "The Merry Wives of Windsor" (Nicolai). Song: Der Lenz (Hildach). Selection from "Fra Diavolo" (Auber). March Mein Herzjuwel (Moeder). Waltz from "The Dollar Princess" (Fall). Selection from "The Merry Widow" (Lehar). O. Fräulein Grete (Llossas). Wenn du mal in Hawaii bist (Willy Rosen). March, Alte Kameraden (Teike).
5.45 p.m.—Talk on Kant's philosophy, for the Anniversary of his Birth (April 22nd).
6.10 p.m.—Market Prices.
6.30 p.m.—Talk on Handicrafts: Architecture and Allied Arts.
7.0 p.m.—(from Danzig) French Conversational Lesson.
7.30 p.m.—Gramophone Records.
8.15 p.m.—Weather Forecast.
8.20 p.m.—"The Wedding"—Farce in One Act (Anton Tchekov).
9.0 p.m.—Symphony Concert. Suite in C Major (J. S. Bach). Scottish Fantasia for Violin and Orchestra (Max Bruch). Symphony in D Minor, No. 4 (R. Schumann).
10.20 p.m.—Weather, News and Sports Notes, followed by Silent Night.

HILVERSUM (Holland)
1,004 kc/s (298 m.); 8.5 kW.
8.40 a.m.—till Close Down.—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
8.40 a.m.—Time Signal.
8.41 a.m.—Gramophone Records.
10.40 a.m.—Daily Service.
11.10 a.m.—Gramophone Records.
11.40 a.m.—Ballad Concert.
12.40 p.m.—Station Quartet Concert. Songs in the intervals.
2.40 p.m.—Talk (to be announced).
3.10—3.40 p.m.—Interval.
3.40 p.m.—Talk (to be announced).
4.40 p.m.—Programme for Hospitals.
5.40 p.m.—Orchestral Concert. D-r Matrose liebt sein Madel (Karl May). Waltz, Morgenblätter (Joh. Strauss-Nussbaum). Songs: (a) Three Little Words (H. Ruby), (b) I want a little girl (Moll and Mencher). Mein Liebeslied muss ein Walzer sein (Stolz). Frau' nicht warum (Stolz). Pagliacci (Katzmann). Anita (Lesso-Valerio). Aromas Mendocinas (Cunita). Selection (Urbanek-Wilkinson). Es kommt der Tag, wo Rosen glüh'n (Stolz). Compôte Potpourri (Dostal).
6.40 p.m.—Pianoforte Recital.
7.10 p.m.—Talk (to be announced).
7.40 p.m.—English Language Lesson.
8.10 p.m.—Sports Notes.
8.40 p.m.—Gramophone Records.
8.55 p.m.—Orchestral Concert, conducted by Dr. Willem Mengelberg, relayed from the Concert Hall, Amsterdam. In the interval: Talk.
11.10 p.m.—Weather and News.
11.20 p.m.—Song Recital.
11.55 p.m.—Gramophone Records.
12.40 a.m. (Friday)—Close Down.

KALUNDBORG (Denmark)
Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW.
See Copenhagen Programme.

KATOWICE (Poland)
Polskie Radio. 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m.
7.0 p.m.—Miscellaneous Announcements, Programme Notes, News, Theatre Review and Amusement Guide.
7.15 p.m.—Talk: Sports in Silesia.
7.35 p.m.—News Bulletin.
7.40 p.m.—Press Review.
7.55 p.m.—Boy Scouts' Report.
8.0 p.m.—Reading.
8.15 p.m.—Wireless Technical Talk.
8.30 p.m.—Light Music.
9.30 p.m.—Literary Programme.
10.15 p.m.—Evening Concert.
11.0 p.m.—Weather, Programme Announcements in French and News.
11.10 p.m.—Light Music and Dance Music.

KAUNAS (Lithuania)
Radio Kaunas. 155 kc/s (1,935 m.); 7 kW.
5.30 p.m.—Musical Programme.
6.0 p.m.—Talk: The Zambesi River.
6.20 p.m.—Review of Foreign Affairs.
6.35 p.m.—Talk by Prof. Vabalas-Gudatis.
7.0 p.m.—Time, Weather and News.
7.30 p.m.—Mandoline and Guitar Concert.
8.0 p.m.—Talk: Archaeological Research.
8.20 p.m.—Musical Programme.
9.40 p.m.—Talk: Popular Lithuanian Songs, with Illustrations in Esperanto.
10.0 p.m.—Musical Programme.

KÖNIGSBERG (Germany)
Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW.
See Heilsberg Programme.

LAHTI (Finland)
167 kc/s (1,796 m.); 54 kW.
Relayed by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m.
5.0 p.m.—Concert. March, Acropolis (Hughes). Overture, "Zampa" (Hérold). Waltz from "The Count of Luxembourg" (Lehar). Finnish Song. Tzigane Dance (Nachéz). Selection from "The Bird Fancier" (Zeller). March, Schneidege Truppe (Lehnhardt).
6.15 p.m.—Agricultural Talk.
6.45 p.m.—Introductory Talk to the following Transmission.
7.0 p.m.—Symphony Concert by the Helsingfors Municipal Orchestra, conducted by Robert Kajanus, relayed from the University. Third, Sixth and Seventh Symphonies (Sibelius).
8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)
Westdeutscher Rundfunk. 635 kc/s (473 m.); 17 kW.
Relayed

Catholic Radio Society (K.R.O. Gramophone Records.
10.40—11.40 a.m.—Programme of the Christian Radio Society (N.C.R.V.).
10.40 a.m.—Selections by a Ladies' Choir.
11.10 a.m.—Programme for Hospitals
11.40 a.m.—2.40 p.m.—Programme of the K.R.O.
11.40 a.m.—Gramophone Records.
12.10 p.m.—Religious Address by the Rev. Fr. Perquin.
12.40 p.m.—Police Notes.
12.55 p.m.—Trio Concert.
2.25 p.m.—Gramophone Records.
2.40 p.m. till Close Down. Programme of the N.C.R.V.
2.40 p.m.—Gramophone Records.
2.55 p.m.—Lesson in Handicrafts.
3.55—4.25 p.m.—Programme for Women.
4.40 p.m.—Programme for Hospitals.
5.40 p.m.—Handicrafts Lesson for Young People.
6.25 p.m.—Song and Pianoforte Recital.
7.10 p.m.—Dressmaking Lesson.
7.25 p.m.—Wireless Technical Talk.
7.40 p.m.—Question Time.
8.10 p.m.—Police Notes.
8.25 p.m.—Gramophone Records.
8.40 p.m.—Programme arranged by the Young People's Association. Opening Address. Songs. Talk by Mr. Hoeve. Recitations. Talk by Mr. Iabak. Songs. Recitations. Talk by Mr. Doorschodt. Songs. Closing Address.
10.40 p.m.—News Bulletin.
10.50 p.m.—Gramophone Records.
12.10 a.m. (Friday)—Close Down.

KATOWICE (Poland)
Polskie Radio. 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m.
7.0 p.m.—Miscellaneous Announcements, Programme Notes, News, Theatre Review and Amusement Guide.
7.15 p.m.—Talk: Sports in Silesia.
7.35 p.m.—News Bulletin.
7.40 p.m.—Press Review.
7.55 p.m.—Boy Scouts' Report.
8.0 p.m.—Reading.
8.15 p.m.—Wireless Technical Talk.
8.30 p.m.—Light Music.
9.30 p.m.—Literary Programme.
10.15 p.m.—Evening Concert.
11.0 p.m.—Weather, Programme Announcements in French and News.
11.10 p.m.—Light Music and Dance Music.

KAUNAS (Lithuania)
Radio Kaunas. 155 kc/s (1,935 m.); 7 kW.
5.30 p.m.—Musical Programme.
6.0 p.m.—Talk: The Zambesi River.
6.20 p.m.—Review of Foreign Affairs.
6.35 p.m.—Talk by Prof. Vabalas-Gudatis.
7.0 p.m.—Time, Weather and News.
7.30 p.m.—Mandoline and Guitar Concert.
8.0 p.m.—Talk: Archaeological Research.
8.20 p.m.—Musical Programme.
9.40 p.m.—Talk: Popular Lithuanian Songs, with Illustrations in Esperanto.
10.0 p.m.—Musical Programme.

KÖNIGSBERG (Germany)
Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW.
See Heilsberg Programme.

LAHTI (Finland)
167 kc/s (1,796 m.); 54 kW.
Relayed by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m.
5.0 p.m.—Concert. March, Acropolis (Hughes). Overture, "Zampa" (Hérold). Waltz from "The Count of Luxembourg" (Lehar). Finnish Song. Tzigane Dance (Nachéz). Selection from "The Bird Fancier" (Zeller). March, Schneidege Truppe (Lehnhardt).
6.15 p.m.—Agricultural Talk.
6.45 p.m.—Introductory Talk to the following Transmission.
7.0 p.m.—Symphony Concert by the Helsingfors Municipal Orchestra, conducted by Robert Kajanus, relayed from the University. Third, Sixth and Seventh Symphonies (Sibelius).
8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)
Westdeutscher Rundfunk. 635 kc/s (473 m.); 17 kW.
Relayed

Programmes for Thursday—(Cont.)

by Aachen, Cologne and Münster, 1,319 kc/s (227 m.). Transmits at intervals from 6.45 a.m. (Physical Exercises.) 5.0 p.m.—See Mühlacker. 6.0 p.m.—Talk for Women: Graphology. 6.20 p.m.—Talk on Westphalia. 6.40 p.m.—Spanish Lesson. 7.0 p.m.—Weather, Time, Economic and Sports Notes. 7.15 p.m.—Topical Talk. 7.30 p.m.—Talk: The Provisioning of West Germany. 7.55 p.m.—First News. 8.0 p.m.—Orchestral Concert. Overture, "Die Feisenmühle" (Reisinger). Autumn Thoughts (Leoncavallo). Viennese Dance (Gärtner). Hungarian Rhapsody, No. 12 (Liszt). Waltz, An dich (Waldteufel). Frühlingslied (Schürmann-Eysoldt). Serenade (Heykens). March, Die Jugend marschert (Lindemann). 9.0 p.m.—Symphony Concert. Soloist: W. Schneiderhan (Violin). Violin Concerto (Elgar). Third Symphony in D Minor (Bruckner). 10.40 p.m.—News, Sports Notes, Concert and Dance Music. 12.0 midnight (approx.)—Close Down.

MORAVSKÁ-OSTRAVA (Czechoslovakia) 1,139 kc/s (263 m.); 11 kW. Transmits at intervals from 11.0 a.m. 7.0 p.m.—See Prague. 7.5 p.m.—Gramophone Records. 7.15 p.m.—See Prague. 9.30 p.m.—Dance Music. 10.0 p.m.—See Prague. 10.15 p.m.—Programme Announcements. 10.20 p.m.—See Prague. MOTALA (Sweden) 221.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme. MÜHLACKER (Germany) Süddeutscher Rundfunk. 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.). Transmits at intervals from 6.15 a.m. (Time and Weather). 4.30 p.m. (from Pforzheim)—Concert by the Pforzheim Symphony Orchestra. Overture, "Titus" (Mozart). Concerto in E Flat Major for Horn with Orchestra (Mozart). Suite, Paris (G. Lüttgers). Movements Nos. 1 and 2 from the Suite for Trombone and Orchestra (K. F. Leucht). Symphonic Poem, Die Moldau (Smetana). Eine Nacht auf dem Kahlenberg (Moussorgsky). 1812 Overture (Tchaikovsky). 6.0 p.m.—Time, Weather and Agricultural Notes. 6.15 p.m.—Talk: The Development of Baby's Speech. 6.45 p.m.—See Frankfurt. 7.10 p.m.—Time Signal. 7.15 p.m.—See Frankfurt. 7.45 p.m. (from Mannheim)—Carl Maria von Weber Concert, with Introductory Talk. Pianoforte Quartet in B Flat Major (1809). Songs: (a) Schäfersünde, (b) Serenade. Variations for Cello with Pianoforte accompaniment (1810—dedicated to A. von Dusch). Der erste Ton—Melodramatic Cantata to Verses by Rochlitz, 1808). Songs, Des Künstlers Abschied. 9.0 p.m.—12 midnight.—See Frankfurt. 10.30 p.m. (in an interval)—Programme Announcements, News and Weather. 12 midnight (approx.)—Close Down. MUNICH (Germany) 563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserslautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.). Transmits at intervals from 6.45 a.m. (Gymnastics). 7.5 p.m.—Technical Report. 7.30 p.m.—"Das Theaterdorf"—Comedy in Three Acts (O. Blumenthal and G. Kadelburg). 9.0 p.m.—Symphony Concert. Soloist: Richard Staab (Pianist). Overture, "Iphigenia in Aulis" (Glück). Concerto in G Major for Pianoforte and Orchestra (Beethoven). Symphony in C Major—the Jupiter Symphony (Mozart). 10.20 p.m.—Time, Weather, News and Sports Notes. OSLO (Norway) Kringkastingsselskapet. 280 kc/s (1,071 m.); 75 kW. Relayed by Fredrikstad, 815 kc/s (368 m.); Hamar, 511 kc/s (587 m.); Norddalen, 671 kc/s (447.1 m.); and Rjukan, 671 kc/s (447.1 m.). Transmits at intervals from 10.0 a.m. (Market Prices.) 5.30 p.m.—Cello Recital. Aria (Handel). Larghetto (Stutschewsky). Andante (Lindner). Serenade (Squire). Adagio (Grazieli-Stutschewsky). Largo (Vivaldi-Stutschewsky). Air (Hure). 6.0 p.m.—Recitations. 6.30 p.m.—Religious Programme. 7.0 p.m.—Announcements, Weather and News. 7.30 p.m.—German Lesson. 8.0 p.m.—Time Signal. 8.2 p.m.—Agricultural Programme. 8.30 p.m.—Choral Recital relayed from Nidaros, 608 kc/s (493.4 m.). 9.35 p.m.—Weather and News. 9.50 p.m.—Topical Talk. 10.5 p.m.—Cornet Quintet Concert. 10.35 p.m. (approx.)—Close Down. PARIS (France) Eiffel Tower. (FLE). 207 kc/s (1,445 m.); 15 kW. Time Signals (on 2,650 m., 113 kc/s) at 10.25 a.m. and 11.25 p.m. (preliminary and 6-dot signals). 6.45 p.m.—Le Journal Parlé. 8.20 p.m.—Meteorological Forecast. 8.30 p.m.—Gramophone Concert. PARIS (France) Poste Parisien. 914 kc/s (329 m.); 1.2 kW. 9.0 a.m.—Picture Transmission.

8.25 p.m.—Gramophone Records and News. 8.45 p.m.—Talk on Films, Gramophone Records and News. 9.0 p.m.—Concert. Overture, "Genoveva" (Schumann). Intrada (Desplantes). Tambourin (Leclair). Symphonic Poem, Maseppa (Liszt), conducted by M. Théodore Mathieu. Entr'actes from "Rosamunde" (Schubert). Ballet Music from "La Gioconda" (Ponchielli). Eighth Hungarian Dance (Brahms). Turkish March (Mozart). PARIS (France) Radio-Paris (CFR). 174 kc/s (1,725 m.); 17 kW. Transmits at intervals from 6.45 a.m. (Physical Culture). 12.30 p.m.—Gramophone Records. 1.0 p.m.—Exchange Quotations and News. 1.5 p.m.—Gramophone Concert for Children. In the intervals at 1.30 p.m.—Exchange Quotations and at 2.0 p.m.—Exchange and Market Prices. 3.30 p.m.—Exchange and Market Prices. 5.55 p.m.—Exchange Quotations. 6.0 p.m.—Gramophone Dance Records. 6.30 p.m.—Agricultural Report and Racing Results. 7.0 p.m.—Talk: Wireless Talks. 7.30 p.m.—Advanced Book-keeping Lesson. 7.45 p.m.—Commercial Prices, Economic and Social Notes and News. 8.0 p.m.—"Il Seraglio"—Opera (Mozart). In the intervals at 8.30 p.m.—News and Sports Results and at 8.40 p.m.—A Review. 9.15 p.m.—Press Review, News and Time Signal. POZNAŃ (Poland) 896 kc/s (335 m.); 1.9 kW. Also relayed on 8,30 kc/s (30.5 m.) from 8.30—9.30 p.m. and 10.15—10.35 p.m. Transmits at intervals from 7.0 a.m. 6.45 p.m.—Talk: Aeronautics. 7.0 p.m.—Humorous Programme. 7.15 p.m.—Agricultural Talk. 7.30 p.m.—Agricultural Report. 7.45 p.m.—Elementary English Lesson. 8.0 p.m.—Talk: Literature and Poetry. 8.15 p.m.—Miscellaneous Items and News. 8.30 p.m.—Evening Concert. In the intervals. Theatre Notes and Programme Announcements. 9.30 p.m.—See Warsaw. 10.15 p.m.—Time, News, Sports and Police Notes. 10.30 p.m.—Bass Song Recital. 10.35 p.m. (approx.)—Close Down. PRAGUE (Czechoslovakia) Stranice. 617 kc/s (487 m.); 5.5 kW. Transmits at intervals from 11.15 a.m. 7.0 p.m.—Time, News and Talk for Workers. 7.15 p.m.—Song Recital by Otakar Marak. Arias from "Dalibor" and "The Two Widows" (Smetana), "In the Well" (Blodek), "Eugen Onegin" and "Pique Dame" (Tchaikovsky) and "Sadko" (Rimsky-Korsakoff). 7.40 p.m.—"Round the World"—an Adventurous Voyage (Milos Karen). 9.30 p.m.—Pianoforte Recital. 10.0 p.m.—Time, News and Sports Notes. 10.15 p.m.—News, Theatre Notes and Programme Announcements. 10.20 p.m.—Organ Recital from the Beranek Cinema. 11.0 p.m.—Time, News and Chimes. RABAT (Morocco) Radio-Maroc. 721.1 kc/s (416 m.); 2.5 kW. Transmits at intervals from 1.30 p.m. 7.45 p.m.—Talk. Le Journal Parlé and Gramophone Records. 8.45 p.m.—News and Le Journal Parlé. 9.0 p.m.—Orchestral Concert, followed by Talk on Music and Concert of Ballet Music. Overture, "Prometheus" (Beethoven-Weninger). Ballet Music from "La Juive" (Halévy-Hohenstein). Ballet Music from "Faust" (Gounod). Serenade from "Naimouna" (Lalo). Selection from "Le roi s'amuse" (Delibes-Mouton). 11.0 p.m.—Relay or Gramophone Records. RIGA (Latvia) Radio Riga. 572 kc/s (525 m.); 13 kW. Transmits at intervals from 11.0 a.m. (News). 7.0 p.m.—Weather Report. 7.3 p.m.—Songs and Recitations. 8.0 p.m.—News Bulletin. 8.20 p.m.—Pianoforte Recital, from

the Conservatoire. Sonate in B Minor (Chopin). Prelude and Feux d'artifice (Debussy). Etudes (Chopin). Etudes (Liszt). 9.0 p.m.—Weather and News. 9.30 p.m.—Light Music. 11.0 p.m. (approx.)—Close Down. ROME (Italy) Ente Italiano Audizioni Radiofoniche (IRO). 680 kc/s (441 m.); 75 kW. Relayed by Naples, 605 kc/s (332 m.), and 2RO, 11,810 kc/s (25.4 m.). Transmits at intervals from 8.15 a.m. (Giornale radio and Weather for Shipping). 5.0—6.30 p.m.—Vocal and Instrumental Concert. Slavonic Quartet (Glazounoff). Soprano Solos: (a) Aria from "La vergine del sole" (Cimarosa), (b) Song of the Butterfly from "Les Fêtes vénitienes" (Campra). Tenor Solos: (a) Aria from "Don Juan" (Mozart), (b) Aria from "Falstaff" (Verdi). Philatelic Review. Pianoforte Solo: Rondo brillante, Op. 62 (Weber). Two Characteristic Pieces for String Quartet (Goossens): (a) Nocturne, (b) Jack o' Lantern. Tenor Solo from "The Pearl Fishers" (Bizet). Soprano Solos: (a) Aria from "Linda di Chamounix" (Donizetti), (b) Aria from "Il re" (Giordano). Triana (Albéniz). Pianoforte Solo: La Janza d'Olaf (Pick-Mangiagalli). 7.10 p.m. (from Naples)—Harbour Notes. 7.15 p.m.—Agricultural Report. 7.25 p.m.—Giornale radio, Announcements and News. 7.50 p.m.—Gramophone Records. 8.10 p.m.—Giornale radio; Sports Notes. 8.30 p.m.—Time and Announcements. 8.40 p.m.—"Selling One's Soul to the Devil"—One Act Comedy (Amerigo Manzini). 9.5 p.m.—Symphony Concert from the Works of Zandonani, conducted by the Composer.—Popular Tuscan Dance: Trescone. Three Lyrics with Strings, Harmonium and Harp Accompaniment: (a) Mistero, (b) Serenata, (c) Stornello. Medieval Serenade for Cello and Orchestra. Vocal and Instrumental Selections from "I cavalieri di Ekebu". Announcements. Ballata fantastica. Prologue, "Giuliano". 10.55 p.m. (approx.)—News. SCHENECTADY (U.S.A.) General Electric Company (WGY). 700 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9,520 kc/s (31.48 m.) and by W2XAD on 15,340 kc/s (19.56 m.). Transmits at intervals from 12.45 p.m. 11.0 p.m.—Capital Trio. 11.45 p.m.—Uncle Jim. 12 midnight.—Time Signal. 12.1 a.m. (Friday)—Programme Notes. 12.4 a.m.—Market Prices and News. 12.15 a.m.—Health Talk. 12.20 a.m.—Musical Moments. 12.28 a.m.—Weather Report. 12.29 a.m.—Durham Duplexers. 12.44 a.m.—Time Signal. 12.45 a.m.—Programme from New York. 1.0 a.m.—Musical Programme. 1.30 a.m.—Programme from New York. In the interval at 5.0 a.m.—Organ Recital from the Ritz Theatre, Albany, N.Y. 6.0 a.m.—Gordie Randall and his Orchestra. 6.30 a.m.—Doc Peyton and the Hotel Kenmore Orchestra, Albany, N.Y. 7.0 a.m. (approx.)—Close Down. SOTTENS (Switzerland) Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.). Transmits at intervals from 12.25 p.m. 3.45 p.m. (from Lausanne)—Orchestral Concert from the Kursaal, Montreux. 5.30 p.m. (from Lausanne)—Organ Recital from the Capitol Cinema. 6.0 p.m. (from Lausanne)—Dance Music. 7.0 p.m.—Time and Weather. 7.2 p.m. (from Lausanne)—News. 7.10 p.m. (from Lausanne)—Elementary Italian Lesson. 7.30 p.m. (from Lausanne)—Talk on Tuberculosis. 8.0 p.m. (from Lausanne)—Variety Programme. 9.0 p.m.—Orchestral Concert. 10.0 p.m. (in the interval)—News. 10.30 p.m. (from Lausanne)—The Letter Box. 11.0 p.m. (approx.)—Close Down. STOCKHOLM (Sweden) Radiotjänst (SASA). 680 kc/s (436 m.); 75 kW. Relayed by Boden, 244 kc/s (1,229.5 m.); Göteborg, 932 kc/s (322 m.);

Hörby, 1,166 kc/s (257 m.); Motala, 221.9 kc/s (1,352 m.); Östersund, 389 kc/s (770 m.); Sundsvall, 554 kc/s (542 m.). Transmits at intervals from 7.15 a.m. (Gymnastics). 5.0 p.m.—Weather Report, followed by Divine Service. 5.30 p.m.—Gramophone Records. 6.30 p.m.—Elementary German Lesson relayed from Göteborg. 7.0 p.m.—Weather, followed by Talk: A Diet for Invalids, relayed from Malmö, 1,301 kc/s (231 m.). 7.30 p.m.—"Tannhäuser"—Opera in Three Acts (Wagner) relayed from the Royal Opera House. In the intervals, at 8.30 p.m. (approx.)—News and at 9.50 p.m. (approx.)—Weather. 11.0 p.m. (approx.)—Close Down. STRASBOURG (France) Radio-Strasbourg (PTT.). 869 kc/s (345 m.); 15 kW. Transmits at intervals from 11.30 a.m. 5.0 p.m.—Orchestral Concert. 5.45 p.m.—Talk in French: New European States. 6.0 p.m.—Orchestral Concert. Overture, "The Thieving Magpie" (Rossini). Selection from "Tannhäuser" (Wagner). Selection from "Sappho" (Massenet). 6.45 p.m.—Medical Talk in German: Individual Psychology. 7.0 p.m.—Orchestral Concert of Waltzes. La Housarde (Ganne). Dreams on the Ocean (Gung'l). Emperor Waltz (Joh. Strauss). L'espace (Waldteufel). 7.30 p.m.—News in French and German. 7.45 p.m.—Gramophone Concert. 10.30 p.m. (approx.)—Close Down. TOULOUSE (France) Radiophonie du Midi. 779 kc/s (385 m.); 8 kW. Transmits at intervals from 12.45 p.m. 6.30 p.m.—News and Exchange. 6.45 p.m.—Musical Programme. 7.30 p.m.—News, Racing Results and Market Prices. 7.45 p.m.—Musical Programme. 8.55 p.m.—Fashion Review. 9.0 p.m.—Orchestral Concert. Selection (Höngger). Overture and Ballet Music from "La Mascotte" (Audran). Selection from "Hans the Flute Player" (Ganne). Selection from "The Merry Widow" (Lehár). 9.30 p.m.—Opera Songs. 9.45 p.m.—Musical Programme. 10.30 p.m.—News Bulletin. 10.45 p.m.—Musical Programme. 11.15 p.m.—North African News. 11.30 p.m.—Spanish Songs. 11.45 p.m.—Dance Music. 12 midnight.—Weather and Announcements. VIENNA (Austria) Radio-Wien. 531 kc/s (517 m.); 20 kW. Relayed by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.). Transmits at intervals from 9.20 a.m. 7.0 p.m.—French Language Lesson. 7.25 p.m.—Time, Weather, Alpine Weather and Programme Announcements. 7.30 p.m.—Talk: Invisible Powers in Theatre Management. 8.0 p.m.—Song Recital by Josephine Stransky. Rote Abendwolken ziehen (Brahms). Zwielfich (Schumann). Abendempfindung (Mozart). Abendlied (Reger). Two Selections (R. Franz): (a) Drüben geht die Sonne scheiden, (b) Stille Sicherheit. Evening (Gretcheninoff). Traum durch die Dämmerung (R. Strauss). 8.30 p.m.—"Tristan und Isolde" (Wagner) as a Drama. 10.15 p.m.—News Bulletin. 10.25 p.m.—Concert of Light Music. WARSAW (Poland) Polskie Radio. 212 kc/s (1,411 m.); 158 kW. Transmits at intervals from 11.40 a.m. 5.45 p.m.—Jarecki Concert. Rondo for Violin, Cello and Pianoforte. Songs. String Quartet, Op. 25. 6.45 p.m.—Miscellaneous Items. 7.10 p.m.—Agricultural Report. 7.25 p.m.—Gramophone Records. 7.30 p.m.—Sports Notes. 7.35 p.m.—Programme Announcements. 7.40 p.m.—Radio Journal. 7.55 p.m.—Gramophone Records. 8.0 p.m.—Talk on Suicides. 8.15 p.m.—Wireless Technical Talk. 8.30 p.m.—Vocal and Orchestral Concert. In the interval, Theatre Review. 9.30 p.m.—Talk: The Golden Age of Chivalry. 10.15 p.m.—Musical Programme. 10.50 p.m.—Weather, Police and Sports Notes. 11.0 p.m.—Light Musical Selections and Dance Music.

PROGRAMMES FOR

FRIDAY (April 24)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa) 825.3 kc/s (303.4 m.); 13 kW. Transmits at intervals from 1.30 p.m. 8.15 p.m.—Agricultural Report. 8.30 p.m.—Concert. 8.45 p.m.—Military Marches. 8.55 p.m.—News Bulletin. 9.0 p.m.—Concert—Humour in Music with Explanatory Notes. 10.0 p.m.—Light Music. 11.0 p.m.—Songs from Opera. 11.15 p.m.—Gramophone Records.

BARCELONA (Spain) Radio-Barcelona (EAJ1). 860 kc/s (349 m.); 8 kW. Transmits at intervals from 8.0 a.m. (Topical Review). 6.0 p.m.—Programme for Women. 6.30 p.m.—Trio Music. 7.0 p.m.—Dance Music from the Hotel Ritz. 8.30 p.m.—Elementary French Lesson. 9.0 p.m.—Climes, Weather and Exchange. 9.5 p.m.—Talk in Catalan. 9.20 p.m.—Orchestral Concert. March, The Nutcracker Parade (Ranzato). Selection from "A Masked Ball" (Verdi). Waltz, Sommerslust (Ljacke). Réverie, Prés des étoiles (Deveux). Danse (Doret). Overture, "King Stephen" (Beethoven).

BERLIN (Germany) Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW. Transmits at intervals from 5.45 a.m. (Hamburg Relay). 4.30 p.m.—See Leipzig. 5.30 p.m.—Talk on the Saar Question. 6.0 p.m.—Talk: Commercial Policy and the Economic Position in South-Eastern Europe. 6.30 p.m.—Talk: Magic, Witchcraft and the Art of Healing. 7.0 p.m.—Talk for Veterinary Surgeons. 7.20 p.m.—Talk: The World of the Worker—the Working Woman as Housewife and Mother. 7.40 p.m.—Weather for Farmers. 8.0 p.m.—See Langenberg. 9.10 p.m. till Close Down.—See Berlin (Witzleben).

BERLIN (Germany) Witzleben. 716 kc/s (418 m.); 1.7 kW. Transmits at intervals from 6.30 a.m. (Gymnastics). 7.0 p.m.—Concert of Light Vocal and Instrumental Music. 8.30 p.m.—News: Sports Notes. 8.40 p.m.—Prelude and Toccata for Organ, Op. 12 (Karol Rathaus). 9.10 p.m.—"Alma 1907 and Love"—a Satirical Wireless Poem (Joachim Maass and Waldemar Maas). 10.15 p.m.—Weather, News and Sports Notes. 10.30 p.m. (approx.)—Orchestral Concert. Overture, "Russlan and Ludmilla" (Glinka). Serenade for Twelve Wind Instruments (Berger). Concert Suite, Roma (Bizet). Wedding Waltz from "Pierrette's Veil" (Dohnanyi). In the interval: The Topical Potpourri.

BORDEAUX-LAFAYETTE (France) (PTT). 986 kc/s (304 m.); 35 kW. Transmits at intervals from 12 noon. 6.0 p.m.—Talk with Illustrations: American Literature. 7.30 p.m.—News Bulletin. 7.40 p.m.—Gramophone Records. 7.55 p.m.—Results of the Prize Draw. 8.0 p.m.—Topical Talk. 8.15 p.m.—Charades. 8.30 p.m.—Concert. Overture, "Così fan tutte" (Mozart). La belle au bois dormant (Debussy). Contralto Solos: (a) L'île heureuse (Chabrier), (b) Aria from Werther (Massenet). Orchestral Suite, Izeil (Pierné). Cello Solos: (a) Selections from "Lakmé" (Delibes), (b) Air from "Gwendoline" (Chabrier). Waltz, "The Wave" (Metra). Selections from "La Tosca" (Puccini). Contralto Solo from "Mireille" (Gounod). Baritone Solo: As-tu vu dans les ports (Coqueriaux). Contralto and Baritone Duet from "La Favorita" (Donizetti). Chant nuptial (Chaus-

son). Turkish March from "The Ruins of Athens." (Beethoven). After the Programme, Amusement Guide and Time Signal. BRATISLAVA (Czechoslovakia) 1,076 kc/s (279 m.); 14 kW. Transmits at intervals from 10.30 a.m. 7.0 p.m.—See Prague. 7.20 p.m.—Introductory Talk to the following Transmission. 7.30 p.m.—"The Love for Three Oranges"—Opera in Four Acts (Prokofieff). 9.30 p.m.—Gramophone Records. 10.0 p.m.—See Prague. 10.15 p.m.—Programme Announcements. 10.20 p.m.—See Prague.

BRESLAU (Germany) 923 kc/s (325 m.); 1.7 kW. Relayed by Gleiwitz, 1,184 kc/s (253 m.). Transmits at intervals from 7.0 a.m. (Alarm and Gymnastics). 7.0 p.m.—Talk: Civic Education. 7.30 p.m.—Weather for Farmers. 7.35 p.m.—Orchestral Concert. Selection from "The Cherry Legend" (Penna). Sketch, Vintage (Travaglia). Waltz, Man lebt nur einmal (Joh. Strauss). Andante from "Les deux pigeons" (Messinger). Witches' Dance (MacDowell). Barcarolle and Sicilienne, Capri and Taormina (Rossini-Resighi). Turkish Carnival (Luigini). 8.25 p.m.—Weather Forecast. 8.30 p.m.—See Witzleben. 10.0 p.m.—Time, Weather, News, Sports Notes and Programme Announcements. 10.25 p.m.—Talk: Modern Football. 10.45 p.m.—Sorthand Lesson and Dictation. 11.0 p.m.—Weekly Sound News from the Ufa Theatre. 11.15 p.m. (approx.)—Close Down.

BRNO (Czechoslovakia) 878 kc/s (342 m.); 3 kW. Transmits at intervals from 10.30 a.m. 7.0 p.m.—See Prague. 7.20 p.m.—Introductory Talk to the following Transmission. 7.30 p.m.—"Eugen Onegin"—Opera (Tchaikovsky). 10.0 p.m.—See Prague. 10.15 p.m.—News. 10.20 p.m.—See Prague.

BRUSSELS (Belgium) Radio-Belgique. 590 kc/s (509 m.); 20 kW. 5.0 p.m.—Dance Music. 5.45 p.m.—"Saint-Saëns Concert." Overture, "La princesse jaune." Selection from "Samson and Delilah." Cavatina for Cello. Selection from "Le déluge." Talk. Selection from "Etienne Marcel." Le carnaval des animaux. 6.45 p.m.—Gramophone Records. 7.15 p.m.—Talk: Flemish Folklore. 7.30 p.m.—Le Journal parlé. 8.0 p.m.—Organ Recital. 8.30 p.m.—Gramophone Records of the Revellers. 8.45 p.m.—Recital on Two Pianos. 9.30 p.m.—Dance Music. 10.0 p.m.—Le Journal parlé.

BRUSSELS No. 2 (Belgium) 887 kc/s (338.2 m.); 20 kW. Programme in Flemish. 5.0 p.m.—Orchestral Concert. 6.0 p.m.—Orchestral Concert. Overture, "Peter Schmol" (Weber). Peer Gyn Suite (Grieg). Suite No. 2 (de Micheli). In the interval, Talk: Accident Insurance. 6.45 p.m.—Gramophone Records. 7.15 p.m.—Talk: Pan Europa. 7.30 p.m.—Le Journal parlé. 7.55 p.m.—Talk: Things to be seen in Nature. 8.0 p.m.—Orchestral Concert. Conducted by M. Meulmans. Overture, "Hansel and Gretel" (Humperdinck). Le chasseur maudit (César Franck). Sing. Suite, Mother Goose (Ravel). Talk and Reading. Selection (Barlioz). La forêt enchantée (d'Inly). Song, Nacht auf dem Kahberg (Mousserzsky). The Nutcracker Suite (Tchaikovsky). 10.0 p.m.—Le Journal parlé.

BUCHAREST (Romania) Radio-Bucarest. 761 kc/s (394 m.); 16 kW. Transmits at intervals from 12 noon. 7.0 p.m.—Dramatic Programme. 7.30 p.m.—Gramophone Records. 8.0 p.m.—Violin Recital. 8.30 p.m.—Choral Selections. In the interval at 9.0 p.m.—Talk. 9.45 p.m.—News Bulletin.

BUDAPEST (Hungary) 545 kc/s (550 m.); 23 kW. Transmits at intervals from 9.15 a.m. 6.40 p.m.—Concert by a Tzigane Orchestra. 7.30 p.m.—"Aida"—Opera (Verdi), relayed from the Opera House, followed by Orchestral Concert. Selection from "Tannhäuser" (Wagner). Selection from "Cavalleria Rusticana" (Mascagni). Operetta Selections (Messenger). Prince Bob (Huszka). Réverie interrompue (Tchaikovsky). Operetta Potpourri (Eisemann). Selection from "Ballerina" (Szirmai). Oriental Tango (Bertha). Song from "Pierrette's Veil" (Dohnanyi). Hungarian Dance, Kárpáthia (Bereny).

COLOGNE (Germany) Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW. See Langenberg Programme.

COPENHAGEN (Denmark) 1,067 kc/s (281 m.); 1 kW. Relayed by Kalundborg, 260 kc/s (1,153 m.). Transmits at intervals from 7.30 a.m. (Gymnastics). 3.0 p.m.—Instrumental Concert. March, King Cotton (Souza). Overture, "The Bohemian Girl" (Balfe). Waltz, Kralls Balklange (Lumbye). Persian Dance (Svendesen). Moment musical (Schubert). Suite, Masquerade (Lacôme). Recital of Songs, March (Kral). Selection (d'Ambrosio). Selection from "Scaramouche" (Sibelius). Selection from "Lilac Time" (Schubert). Forget-me-not (Macbeth). Gallop, En Trauffer (Kral). 5.0 p.m.—Programme for Children. 5.40 p.m.—Exchange Quotations and Fish Market Prices. 5.50 p.m.—Talk: An Aeroplane to Morocco. 6.20 p.m.—German Language Lesson. 6.50 p.m.—Weather Report. 7.0 p.m.—News Bulletin. 7.15 p.m.—Time Signal. 7.30 p.m.—Talk: Buddha and his Teaching. 8.0 p.m.—Town Hall Chimes. 8.2 p.m.—Ten Minutes by Per Knutzen. 8.10 p.m.—Flute Recital. Variations on a Theme by Mozart for Flute and Pianoforte (Hahn). Orphee, Scène des Champs Elysées (Glück). Fantasia (Hüe). 8.30 p.m.—"Criston"—a Dialogue in 15 Plato (arranged for Radio by Hans Werner). 9.0 p.m.—Orchestral Concert of Extracts Music. Aragonésa (de Falla). Minuet for Strings (Bolton). Polka, Les vendredis (Borodin, Sokoloff and Liadoff). Humoresque (Dvorak). 9.15 p.m.—"An American Duel"—Grottesque in One Act (Arkady Avertchenko). 9.30 p.m.—Orchestral Concert of Classical Gavottes and Minuets. Congratulations-Menuet (Beethoven). Gavotte from the Third English Suite (J. S. Bach). Minuet for Strings (Boccherini). Gavotte from "Idomeneus" (Mozart). Minuet (Gossec). Gavotte from "Iphigenia in Aulis" (Glück). Minuet from the Symphony in E Flat Major (Mozart).

10.0 p.m.—News Bulletin. 10.15 p.m.—Orchestral Concert of Symphonic Jazz Music. 11.0 p.m. (approx.)—Close Down.

CORK (Ireland) (6CK). 1,337 kc/s (225 m.); 1.5 kW. 6.0—10.30 p.m.—See Dublin. DUBLIN (Ireland) (2RN). 725 kc/s (413 m.); 1.5 kW. 1.30—2.0 p.m.—Timé, Weather, Stock Report and Gramophone Concert. 6.0 p.m.—Gramophone Records. 6.15 p.m.—Programme for Children. 7.0 p.m.—Gramophone Records. 7.20 p.m.—News Bulletin. 7.30 p.m.—Time and Gardening Talk. 7.45 p.m.—Henry Fraser: Monologues. 8.0 p.m.—Operatic Concert by the Station Sextet with Vocalists. 9.0 p.m.—Elizabeth Young and Company in a Dramatic Sketch. 9.30 p.m.—Light and Shade (Entertainers). 9.50 p.m.—The Fingal Trio. 10.15 p.m.—The Station Sextet. 10.30 p.m.—Time, News, Weather and Close Down.

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Programmes for Friday—(Cont.)

FRANKFURT-am-MAIN (Germany)

770 kc/s (390 m.); 1.7 kW. Relayed by Cassel, 1,220 kc/s (246 m.). Transmits at intervals from 6.15 a.m. (Mühlacker Relay).
4.30 p.m.—Orchestral Concert.
6.0 p.m.—Economic Notes.
6.10 p.m.—Dialogue on Films.
6.30 p.m.—Fifteen Minutes German.
6.45—10.20 p.m.—See Mühlacker.
7.10 p.m.—(In an interval) Time, Weather and Economic Notes.
10.20 p.m.—Time and News.
10.30 p.m.—Answers to Correspondents and Results of the Musical Prize Competition.
11.0 p.m.—Weather and Sports Notes.
11.10 p.m.—See Mühlacker.
12 midnight (approx.)—Close Down.

HAMBURG (Germany)

Norag (ha, in Morse), 806 kc/s (372 m.); 1.7 kW. Relayed by Bremen, 1,112 kc/s (270 m.); Flensburg, 1,373 kc/s (213 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,202 kc/s (232.2 m.). Transmits at intervals from 5.45 a.m. (Time, Weather).
7.0 p.m.—Talk: Women in Insurance Offices.
7.30 p.m. (from Hanover)—Talk: How the State trains its Police Officials.
7.50 p.m.—Exchange Quotations and Market Prices.
7.55 p.m.—Weather Report.
8.0 p.m.—Orchestral Concert, relayed from the Musikhalle—Overture, "The Force of Destiny" (Verdi). Songs: (a) Aria from "The Pearl Fishers" (Bizet), (b) The Flower Song from "Carmen" (Bizet). Petite Suite (Debussy). Symphonic Poem, Le Fontaine di Roma (Respighi). Overture, "William Tell" (Rossini). Songs: (a) Aria from "Turandot", and (b) Aria from "The Girl of the Golden West" (Puccini). Symphonic Poem, Le Rouet d'Orphale (Saint-Saëns). Italian-Rhapsody on Sicilian and Neapolitan Melodies (Casella).
9.45 p.m.—News Bulletin.
10.15 p.m.—Dance Music from the Trocadero.
11.15 p.m.—Concert from the Café Continental, Hanover.

HEILSBURG (Germany)

1,085 kc/s (276.5 m.); 75 kW. Relayed by Danzig, 662 kc/s (453 m.). Transmits at intervals from 6.30 a.m. (Gymnastics).
4.15 p.m.—Concert of Light Music from the Park Hotel, Königsberg.
5.45 p.m.—Talk for Women.
6.10 p.m.—Market Prices.
6.30 p.m.—Agricultural Talk.
7.0 p.m.—Sonata in G Minor for Cello and Pianoforte (Chopin).
7.30 p.m.—Poems (Klaus Groth), with Introductory Talk.
8.0 p.m.—Königsberg Labour Market Report and Weather.
8.5 p.m.—"Das Dorf ohne Glocke"—Musical Play after a Hungarian Legend (Eduard Künneke), under the direction of the Composer.
10.15 p.m.—Weather, News and Sports Notes.
10.30 p.m.—12 midnight.—See Berlin (Witzleben).
12.10 a.m. (Saturday)—Concert of Modern Sacred Music. Introduction and Passacaglia, Op. 63, Nos. 5 and 6 (Reger). Two Sacred Songs for Soprano, Viola da gamba and Organ (Hans Gal): (a) Im Himmelreich, (b) Dort oben. Intermezzo, Op. 92, No. 3, for Organ (Reger). Two Selections from "Gesänge an Gott", Op. 68a (Haas): (a) An dieser Abendstunde, (b) Wenn einst die Türen der Himmel aufgehen. Aria for Cello and Organ (Reger).
1.30 a.m. (Saturday)—Close Down.

HILVERSUM (Holland)

1,004 kc/s (298 m.); 8.5 kW.
8.40—10.40 a.m.—Programme of the Workers' Radio Society (V.A.R.A.). Gramophone Records.
10.40 a.m.—Programme of the Liberal Protestant Radio Society (V.P.R.O.). Divine Service.
10.55 a.m.—1.40 p.m.—Programme of the V.A.R.A.
10.55 a.m.—Recitations.
11.10 a.m.—Programme for Hospitals.
12.10 p.m.—Gramophone Records.
12.40—4.40 p.m.—Programme of the Algemeene Vereeniging Radio Omroep (A.V.R.O.).
12.40 p.m.—Quartet Concert:
2.40 p.m.—Harp Recital. L'Egyptienne (J. P. Rameau). Tocatta (Paradis). Norwegian Ballad (Franz Pönnitz). Valse Caprice (Gabriel Verdalle). Impromptu (Charles Oberthür).
3.10 p.m.—Programme for Schools.
3.40 p.m.—Gramophone Records.
4.40 till 8.40 p.m. (approx.)—Programme of the V.A.R.A.

4.40 p.m.—Organ Recital.
5.10 p.m.—Programme for Children.
5.55 p.m.—Vocal and Orchestral Concert, conducted by Hugo de Groot.
7.25 p.m.—Topical Talk.
7.40 p.m.—Programme for Children.
8.40—11.40 p.m.—Programme of the V.P.R.O.
8.40 p.m.—Talk on Church History—Calvin.
9.10 p.m.—Sonatas for Pianoforte (Beethoven).
9.40 p.m.—Talk on Sinclair Lewis and Upton Sinclair.
10.10 p.m.—Pianoforte Recital.
10.40 p.m.—News Bulletin.
10.55 p.m.—Talk on Modern Music.
11.25 p.m.—Gramophone Records.
11.40 p.m.—Programme of the V.A.R.A. Gramophone Records.
12.40 a.m. (Saturday)—Close Down.

HUIZEN (Holland)

160 kc/s (1,875 m.); 8.5 kW.
8.40 a.m. till Close Down.—Programme of the Catholic Radio Society (K.R.O.).
8.40—9.55 a.m.—Gramophone Records.
10.40 a.m.—Gramophone Records.
12.10 p.m.—Programme for Hospitals and Old People.
12.40 p.m.—Police Notes.
12.55 p.m.—Quintet Concert.
2.25 p.m.—Gramophone Records.
2.40 p.m.—Popular Orchestral Concert.
5.40 p.m.—Gramophone Records.
6.25 p.m.—Talk by Mr. Gerisch.
6.40 p.m.—Gramophone Records.
6.55 p.m.—Talk by Mr. v. Roosdalen.
7.15 p.m.—Gramophone Records.
7.25 p.m.—English Language Lesson.
7.55 p.m.—Talk by Mr. Herman Moerkkerk.
8.25 p.m.—Police Notes.
8.40 p.m.—"Il Seraglio" (Mozart).
11.40 p.m.—Gramophone Records.
12.40 a.m. (Saturday)—Close Down.

KALUNDBORG (Denmark)

Kalundborg Radio, 265 kc/s (1,153 m.); 10 kW.
See Copenhagen Programme.

KATOWICE (Poland)

Polskie Radio, 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m.
7.0 p.m.—Miscellaneous Announcements, Programme Notes, Theatre Review and Amusement Guide.
7.15 p.m.—Talk: In the Kingdom of Nature.
7.40 p.m.—News and Sports Notes.
8.0 p.m.—Talk on Music.
8.15 p.m.—See Warsaw. After the Programme, Weather, Programme Announcements in French and News.
11.0 p.m.—The Letter Box, in French for Foreign Listeners.

KÖNIGSBERG (Germany)

Ostmarken Rundfunk, 1,382 kc/s (217 m.); 1.7 kW.
See Heilsberg Programme.

LAHTI (Finland)

167 kc/s (1,796 m.); 54 kW. Relayed by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m.
7.5 p.m.—Recitations.
7.30 p.m.—Vocal and Orchestral Concert, relayed from Helsingfors.
8.45 p.m.—News in Finnish and Swedish and Close Down.

LANGENBERG (Germany)

Westdeutscher Rundfunk, 635 kc/s (473 m.); 17 kW. Relayed by Aachen, Cologne and Münster, 1,319 kc/s (227 m.).
Transmits at intervals from 6.45 a.m. (Gymnastics).
5.0 p.m.—See Frankfurt.
6.15 p.m.—Talk: Wireless Jurisdiction during 1930.
6.40 p.m.—Review of Books: New German Novels and Tales.
7.0 p.m.—Weather, Time, Economic and Sports Notes.
7.15 p.m.—Topical Talk.
7.30 p.m.—Talk: International Trade Areas—The African Tropics.
7.55 p.m.—News Bulletin.
8.0 p.m.—Concert of Old Marches for Wind Instruments.
9.15 p.m.—"The Lioness and the General"—Wireless Play (Reinacher). After the Play: News, Sports and Miscellaneous Notices and Concert.
11.0 p.m.—Masters of Jazz—a Gramophone Concert.
12 midnight (approx.)—Close Down.

LEIPZIG (Germany)

Mitteldeutscher Rundfunk, 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.).
Transmits at intervals from 10.0 a.m.
4.30 p.m.—Orchestral Concert. Overture, "Flotte Bursche" (Suppé).

Selection from "The Black Domino" (Auber). Waltz; Scheiden und Meiden (Fétras). Selection from "The Geisha" (Jones). Dance Moments, Op. 14 (Herbeck).
5.30 p.m.—Weather and Time.
5.55 p.m.—Economic Report.
6.5 p.m.—Talk on Social Insurance.
6.25 p.m.—English Language Lesson.
6.50 p.m.—Talk (to be announced).
7.0 p.m.—Talk: The Wireless as a Mediator for Art.
7.30 p.m.—Guitar Recital. Minuet, Op. 11 (Sor). Two Selections (Heinrich Albert): (a) Etude, Am Springbrunnen, (b) Old Spanish Song. Serenade, Granada (Albéniz). Two Selections (Schubert): (a) Ständchen, (b) Moment musical. Fantasia in E Major (Viñas).
8.0 p.m.—Gramophone Records.
9.0 p.m.—Economic Report.
9.10 p.m.—"Peter Gast—the Poet and the Composer." A Concert by the Leipzig Symphony Orchestra. Pastoral on a Bohemian Folk Song. Peter Gast—the Construction of a Personality in Letters. Symphony in G Minor—Helle Nächte. The Construction of a Personality in Letters (continued). Waltz Suite.
10.30 p.m.—News Bulletin.
10.45 p.m. (approx.)—Concert from the Main Station Restaurant.
11.30 p.m. (approx.)—Close Down.

LWÓW (Poland)

788 kc/s (381 m.); 21 kW.
Transmits at intervals from 11.58 a.m.
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—Talk by Mme. Rita Rey.
7.40 p.m.—News Bulletin.
8.0 p.m.—See Warsaw.

MADRID (Spain)

Union Radio (EAJ7), 707 kc/s (424 m.); 2 kW.
Transmits at intervals from 8.0 a.m. (Topical Review).
7.0 p.m.—Chimes, Exchange, Market Prices and Programme for Children.
7.30 p.m.—Dance Music.
8.10 p.m.—Talk on Culture.
8.25 p.m.—News Bulletin.
9.30—9.15 p.m.—Interval.
9.15 p.m.—English Pronunciation Lesson.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche, 599 kc/s (501 m.); 5.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.), and Genova, 959 kc/s (312.8 m.).
Transmits at intervals from 8.15 a.m. (Giornale Radio).
7.0 p.m.—Agricultural Report.
7.5 p.m.—Announcements.
7.15 p.m.—Concert of Light Music.
7.50 p.m.—Gramophone Records.
8.0 p.m.—Time, Announcements, Giornale Radio and Weather.
8.20 p.m.—Economic Report.
8.35 p.m.—Gramophone Records.
8.45 p.m.—Economic Report (contd.).
9.0 p.m.—Soloist, Choral and Orchestral Concert, conducted by Maestro Tansini. In an interval, Talk: From Near and Far.
10.30 p.m.—Concert from the Cova Restaurant.
11.0 p.m. (in an interval)—Giornale Radio.
11.55 p.m.—News Bulletin.

MOTALA (Sweden)

221.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme.

MÜHLACKER (Germany)

Süddeutscher Rundfunk, 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.).
Transmits at intervals from 6.15 a.m. (Time and Weather).
4.30 p.m.—See Frankfurt.
6.0 p.m.—Time, Weather and Agricultural Notes.
6.15 p.m.—Talk: Oxford and Cambridge.
6.45 p.m.—Dental Talk.
7.10 p.m. (from Mannheim)—Agricultural Market Report.
7.20 p.m.—Time and Review of the Principal Events of the Coming Week in Esperanto.
7.25 p.m. (from Karlsruhe)—Mandoline Concert.
8.5 p.m.—Symphony Concert by the Stuttgart Philharmonic Orchestra, relayed from the Liederhalle, Stuttgart. Symphony No. 4 in E Minor (Brahms). Concerto in B Flat Major for Pianoforte with Orchestra (Beethoven). Three Variations for Full Orchestra on a Theme by Adam Hiller (Max Reger).
10.0 p.m.—"Spring"—Austrian Lyrics.
10.20 p.m.—Programme Announcements, News, Weather and Sports Notes.

Programmes for Friday—(Cont.)

19.30 p.m.—See Frankfurt.
19.45 p.m.—Sports Notes.
11.9 p.m.—Dance Music from the Café Wilhelmsbau, Stuttgart.
12 midnight (approx.)—Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserslautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.).
Transmits at intervals from 6.45 a.m. (Gymnastics).
7.0 p.m.—Talk: The Function of the Exchange.
7.30 p.m.—Programme to be announced.
7.40 p.m.—Orchestral Concert. Overture, "Mignon" (Thomas). Traumeister (Czibulka). Romance for Flute and Pianoforte (Saint-Saëns). Selection from "La Tosca" (Puccini). Aus aller Hergen Länder (Moszkowsky). Interlude: "Everyone knows his Bavarian Homeland"—a Guessing Game for Listeners. Selection from "Victoria and her Hussar" (Abraham). Radiowellen (Morona). Blues from "Jonny spielt auf" (Krenek). A Viennese Waltz (Benatzky). March, The Gladiators' Farewell (Blankenburg).
8:55 p.m.—Dialogue: Feeling and Sentimentality.
9.20 p.m.—Chamber Music. String Quartet in D Minor (Haydn). String Quartet in F Major (Ravel).
10.20 p.m.—Time, Weather, News and Sports Notes.

OSLO (Norway)

Kringkastingselskapet. 280 kc/s (1,071 m.); 75 kW. Relayed by Fredrikstad, 815 kc/s (368 m.); Hamar, 511 kc/s (587 m.); Notodden, 671 kc/s (447.1 m.); Porsgrund, 662 kc/s (453 m.); and Rjukan, 671 kc/s (447.1 m.).
Transmits at intervals from 10.0 a.m. (Market Prices).
5.15 p.m.—Song Recital.
6.0 p.m.—Talk: The History of the Norwegian Press.
6.30 p.m.—French Lesson.
7.0 p.m.—Announcements, Weather and News.
7.30 p.m.—English Lesson.
8.0 p.m.—Time Signal.
8.2 p.m.—Symphony Concert from the Logen Hall. Overture, "Egmont" (Beethoven). Jupiter Symphony (Mozart). A Midsummer Night's Dream (Mendelssohn). Symphonic Fantasy, Francesca da Rimini (Tchaikovsky).
9.35 p.m.—Weather and News.
9.50 p.m.—Topical Talk.
10.5 p.m.—Per Lykke Seest reads from his own Works.
10.35 p.m. (approx.)—Close Down.

PARIS (France)

Eiffel Tower (FLE). 207 kc/s (1,445 m.); 15 kW. Time Signals (on 2,650 m., 113 kc/s) at 10.25 a.m. and 11.25 p.m. (preliminary and 6-dot signals).
6.45 p.m.—Le Journal Parlé.
8.20 p.m.—Meteorological Forecast.
8.30 p.m.—Symphony Concert, conducted by M. Edouard Flament. Suite française (Casadesus). Songs accompanied by the Composer (Lazzari): (a) La Fontaine de Pitié, (b) Chanson d'amour et de souci, (c) Langueur nocturne, (d) Qu'importe. Violin Solo. Songs accompanied by the Composer (Lazzari): (a) Malentendu, (b) L'oubli, (c) Les yeux, (d) Le cavalier d'Olmédo. Selections (Albéniz-Salabert): (a) Granada, (b) Oriental, (c) Prelude, (d) Barcarolle, (e) Sevilla.
9.30 p.m.—Variety Programme—with Vincent Scotto.

PARIS (France)

Poste Parisien. 914 kc/s (329 m.). 1.2 kW.
9.0 a.m.—Picture Transmission.
7.25 p.m.—Gramophone Records and News.
8.0 p.m.—Dance Music.
9.15 p.m.—French Songs by Music Hall Artists.
10.30 p.m. (approx.)—Close Down.

PARIS (France)

Radio-Paris (CFR). 174 kc/s (1,725 m.); 17 kW.
Transmits at intervals from 6.45 a.m. (Physical Culture).
12.30 p.m.—Gramophone Records.
1.0 p.m.—Exchange Quotations and News.
1.5 p.m.—Gramophone Records of Chamber Music. In the intervals at 1.30 p.m.—Exchange Quotations, and at 2.0 p.m.—Exchange and Market Prices.
3.30 p.m.—Exchange Quotations.
4.30 p.m.—Talk on the History of Music: Brahms to Richard Strauss.
5.55 p.m.—Exchange Quotations and Market Prices.

6.0 p.m.—Gramophone Records.
6.30 p.m.—Agricultural Report and Racing Results.
7.0 p.m.—Talk: The Campaign against Sleeping Sickness in the French Colonies and Countries under the French Mandate.
7.30 p.m.—Elementary English Lesson.
7.45 p.m.—Commercial Prices, Economic and Social Notes and News.
8.0 p.m.—Room 23.—Play (Genin).
8.30 p.m.—Sports Results.
8.35 p.m.—Amusement Guide.
8.40 p.m.—A Review.
8.45 p.m.—Concert. String Quartet (Haydn). Songs. Fantasia on French Rondos for Pianoforte (d'Indy). Songs. Trio No. 2 (Schumann). In the interval at 9.15 p.m.—Press Review, News and Time Signal.

POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW.
Transmits at intervals from 7.15 a.m.
6.45 p.m.—Topical Talk.
7.0 p.m.—English Lesson.
7.15 p.m.—Talk for Short Wave Amateurs.
7.30 p.m.—French Lesson.
7.45 p.m.—Talk: The Slav Language.
8.0 p.m.—Miscellaneous Items and News.
8.15 p.m.—See Warsaw. After the Programme, Time, News, Sports and Police Notes, followed by Dance Music from the Café Polonia.

PRAGUE (Czechoslovakia)

Strasnice. 617 kc/s (487 m.); 5.5 kW.
Transmits at intervals from 10.30 a.m.
7.0 p.m.—News and Saxophone Solos.
7.30 p.m.—Literary Programme.
7.55 p.m.—Mozart Concert, from the Lucerna Palace. Divertimento in D Major. Recitative and Aria. O, lo prevedi. Bella mia fiamma. After the Concert, Relay from Brno.
10.0 p.m.—Time, News and Sports Notes.
10.15 p.m.—News, Theatre Notes and Programme Announcements.
10.20 p.m.—Concert of Contemporary Music. String Quartet in C Major, Op. 37 (Szymanovsky). Second String Quartet (Hába).

RIGA (Latvia)

Radio Riga. 572 kc/s (525 m.); 13 kW.
Transmits at intervals from 11.0 a.m. (News).
7.0 p.m.—Weather Report.
7.3 p.m.—Orchestral Music.
7.20 p.m.—Choral Concert.
8.0 p.m.—News Bulletin.
8.30 p.m.—Flute Concert. Overture and Selection from "Martina" Overture, "Alessandro Stradella."
9.0 p.m.—Weather Report.
9.10 p.m.—Orchestral Concert.
10.0 p.m.—Popular Music.
11.0 p.m. (approx.)—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (IRO). 680 kc/s (441 m.); 75 kW. Relayed by Naples, 905 kc/s (332 m.); and 2RO, 11,810 kc/s (25.4 m.).
Transmits at intervals from 8.15 a.m. (Giornale Radio and Weather for Shipping).
5.0—6.30 p.m.—Instrumental Concert, conducted by Enrico Martucci. Overture in D Major (Schubert). La Folia—for Violin and Pianoforte (Corelli-Leonard). Peer Gynt Suite (Grieg). Sonata in F Minor for Clarinet and Pianoforte (Brahms). Triumphal March from "Tannhäuser" (Wagner).
7.10 p.m. (from Naples)—Harbour Notes.
7.15 p.m.—Agricultural Report.
7.25 p.m.—Giornale Radio, Announcements and News.
7.0 p.m.—Gramophone Records.
8.10 p.m.—Giornale Radio, Sports Notes.
8.30 p.m.—Time and Announcements.
8.30 p.m.—"A Waltz Dream"—Operetta in Three Acts (O. Straus). In the intervals: Announcements and Talk on Literature and Art.
10.55 p.m. (approx.)—News.

SOTTENS (Switzerland)

Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.).
Transmits at intervals from 12.25 p.m.
4.30 p.m. (from Lausanne)—Talk for Women.
5.0 p.m. (from Lausanne)—Vocal Recital on Gramophone Records.
5.30 p.m.—Orchestral Concert.
7.0 p.m.—Time and Weather.
7.2 p.m. (from Lausanne)—News.
7.10 p.m. (from Lausanne)—Elementary German Lesson.

7.35 p.m. (from Lausanne)—Talk: Psycho-Technics in Service of Professional Work.
8.0 p.m. (from Lausanne)—Reading: from "La Fontaine's Fables."
8.30 p.m. (from Lausanne)—Symphonic Concert. Symphony in G Major (Mozart). Concert Piece for Pianoforte and Orchestra, Op. 92 (Robert Schumann). Symphonic Variations for Pianoforte and Orchestra (Franck). Overture "The Barber of Seville" (Rossini).
10.5 p.m. (approx.)—News.
10.30 p.m. (approx.)—Close Down.

STOCKHOLM (Sweden)

Radiotjänst (SASA). 689 kc/s (436 m.); 75 kW. Relayed by Boden, 244 kc/s (1,229.5 m.); Göteborg, 932 kc/s (322 m.); Hörby, 1,166 kc/s (257 m.); Motala, 221.9 kc/s (1,352 m.); Östersund, 389 kc/s (770 m.); Sundsvall, 554 kc/s (542 m.).
Transmits at intervals from 7.15 a.m. (Gymnastics).
5.0 p.m.—Weather and Programme for Children.
5.20 p.m.—Song Recital.
5.45 p.m.—Gramophone Records.
6.45 p.m.—Agricultural Report.
7.0 p.m.—Weather, followed by Talk: Round the World—Constantinople.
7.45 p.m.—Instrumental Concert of Norwegian Music, and Talk.
8.45 p.m.—Talk: South European Towns of the Middle Ages and the Renaissance.
9.40 p.m.—Road Report by the Royal Automobile Club.
9.45 p.m.—Orchestral Concert.
11.0 p.m. (approx.)—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 15 kW.
Transmits at intervals from 11.30 a.m.
4.45 p.m.—Talk in French: Rhyme in French Verse.
5.0 p.m.—Orchestral Concert.
5.45 p.m.—Educational Talk in French.
6.0 p.m.—Orchestral Concert.
6.45 p.m.—Legal Talk in German.
7.0 p.m.—Orchestral Concert.
7.30 p.m.—News in French and German.
7.45 p.m.—Gramophone Records.
8.30 p.m.—Chamber Music.
10.30 p.m. (approx.)—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW.
Transmits at intervals from 12.45 p.m.
6.45 p.m.—Musical Programme.
7.30 p.m.—News; Racing Results, Exchange and Market Prices.
7.45 p.m.—Musical Programme.
8.25 p.m.—Opera Music.
8.55 p.m.—Fashion Review.
9.0 p.m.—Orchestral Concert. In the interval, News.
11.0 p.m.—Songs and Monologues.
11.15 p.m.—North African News.
11.30 p.m.—Accordion Recital.
11.45 p.m.—Dance Music.
12 midnight.—Weather and Announcements.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 20 kW. Relayed by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.).
Transmits at intervals from 9.20 a.m.
6.55 p.m.—Elementary Italian Lesson.
7.20 p.m.—Time, Weather, Alpine Weather and Programme Announcements.
7.30 p.m.—"Idomeneo." Opera in Three Acts (Mozart), completely re-arranged by L. Wallerstein and Richard Strauss, relayed from the Viennese Opera House.
10.15 p.m.—News Bulletin.
10.25 p.m.—Concert of Light Music.

WARSAW (Poland)

Polskie Radio. 212 kc/s (1,411 m.); 158 kW.
Transmits at intervals from 11.40 a.m.
5.45 p.m.—Orchestral Concert. Overture, "La belle Hélène" (Offenbach). Waltz from "Die geschiedene Frau" (Fall). Selection from "The Circus Princess" (Kálmán). Selection from "The Merry Widow" (Lehár). Entr'acte from "La Vie Parisienne" (Offenbach). March of the Hussars from "Herbstmanöver" (Kálmán).
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—Agricultural Report.
7.25 p.m.—Gramophone Records.
7.35 p.m.—Programme Notes.
7.40 p.m.—Radio Journal.
7.55 p.m.—Gramophone Records.
8.0 p.m.—Talk on Music.
8.15 p.m.—Concert by the Warsaw Philharmonic Orchestra. In the interval, Theatre, Review. After the Programme, Weather, Police and Sports Notes and Relay of Foreign Stations.

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PROGRAMMES FOR SATURDAY (April 25)

NOTE: THE HOURS OF TRANSMISSION ARE REDUCED TO BRITISH SUMMER TIME

ALGIERS (N. Africa)
825.3 kc/s (363.4 m.); 13 kW.
Transmits at intervals from 1.30 p.m.
8.15 p.m.—Songs from Foreign Lands.
8.30 p.m.—Old and Modern Dance Music.
8.55 p.m.—News Bulletin.
9.0 p.m.—Viennese Concert.
9.30 p.m.—Gramophone Records.
11.0 p.m.—Dance Music from the Hotel Aletti.

BARCELONA (Spain)
Radio-Barcelona (EAJT). 860 kc/s (349 m.); 8 kW.
Transmits at intervals from 8.0 a.m. (Topical Review).
6.0 p.m.—Trio Music.
6.15 p.m.—Sacred Music, relayed from the Basilica de la Mercè.
6.30 p.m.—Trio Music.
7.0 p.m.—Dance Music from the Hotel Ritz.
8.30 p.m.—Elementary German Lesson.
9.0 p.m.—Chimes, Weather, Exchange and Agricultural Report.
9.5 p.m.—Orchestral Music.
9.30 p.m.—See Madrid. News in the interval.

BELGRADE (Yugoslavia)
607 kc/s (430.4 m.); 3 kW.
Transmits at intervals from 11.30 a.m.
5.0 p.m.—Violin Recital. La Folia (Corelli). Variations (Sinding). Song without Words and Rondo elegant (Wieniawsky).
5.30 p.m.—Orchestral Concert. Overture, "The Bohemian Girl" (Balfe). Selections from "Paganini" (Lehár).
6.0 p.m.—Talk on Politics.
7.20 p.m.—Talk by Prof. Vlasic.
7.50 p.m.—An Opera (to be announced), relayed from Zagreb 927 kc/s (307 m.). In the interval at 9.30 p.m.—News. After the Programme, Balalaika Concert relayed from the Mon Repos Restaurant.

BERLIN (Germany)
Königs Wusterhausen. 183 kc/s (1,635 m.); 35 kW.
Transmits at intervals from 5.45 a.m. (Hamburg Relay).
4.30 p.m.—See Hamburg.
5.30 p.m.—Talk on Dentistry.
6.0 p.m.—Advanced French Lesson.
6.30 p.m.—Talk: Magic, Witchcraft and the Art of Healing.
7.0 p.m.—Talk: Wireless Disturbances and Distant Reception.
7.30 p.m.—"The Quiet Hour"—Stages of Childhood.
7.55 p.m.—Weather for Farmers.
8.0 p.m.—See Leipzig.
10.15 p.m.—See Berlin (Witzleben).
12.30 a.m. (Sunday).—Close Down.

BERLIN (Germany)
Witzleben. 716 kc/s (418 m.); 1.7 kW.
Transmits at intervals from 6.30 a.m. (Gymnastics).
6.40 p.m.—String Quartet for Two Violins, Viola and Cello (Curt Proetz).
7.10 p.m.—Topical Programme.
7.30 p.m.—The Narrative of the Week.
8.0 p.m.—Concert from the Works of Hubay, conducted by the Composer. Overture, "The Violin Maker of Cremona." Third Concert for Violin. Arabian Ballet from "Die Maske".
9.0 p.m. News; Sports Notes.
9.10 p.m.—"April Weather"—A Variety Programme with Music by Allan Gray.
10.15 p.m.—Weather, News and Sports Notes.
10.30 p.m. (approx.).—Dance Music from the Eden Hotel.
12.30 a.m. (Sunday).—Close Down.

BORDEAUX-LAFAYETTE (France)
(P.T.T.). 986 kc/s (304 m.); 35 kW.
Transmits at intervals from 12.45 p.m.
6.30 p.m.—Radio Journal.
8.0 p.m.—News and Exchange.
8.5 p.m.—Sports Notes.
8.10 p.m.—English Lesson.
8.25 p.m.—Results of the Prize Draw.
8.30 p.m.—Gramophone Records.
After the Programme, Amusement Guide and Time Signal.

BRATISLAVA (Czechoslovakia)
1,076 kc/s (279 m.); 14 kW.
Transmits at intervals from 11.30 a.m.
7.0 p.m.—See Prague.
9.0 p.m.—Orchestral Concert. Pol-

naise from "Eugen Onegin" (Tchaikovsky). Entr'acte from "Dalibor" (Smetana). Rhapsody, España (Chabrier). Selections from "Cavalleria rusticana" (Mascagni). Prelude, Clair de Lune (Massenet). Slavonic Dance, No. 16 (Dvorak). Ballet (Lortzing). Selection from "The Arabian Nights" (J. Strauss). Two Songs from "Paganini" (Lehár). Hallo, Radiojournal Bratislava (Hliza).
10.0 p.m.—See Prague.
10.20 p.m.—Programme Announcements.
10.25 p.m.—See Moravská-Ostrava.

BRESLAU (Germany)
923 kc/s (325 m.); 1.7 kW. Relay by Cleveitz, 1,184 kc/s (253 m.).
Transmits at intervals from 7.0 p.m. (Alarm and Gymnastics).
6.35 p.m.—Gramophone Records of Edith Lorand.
7.0 p.m.—Recapitulation—Review of the Week's Talks and Literary Intelligence.
7.30 p.m.—Weather Forecast.
7.35 p.m.—Gramophone Records of Edith Lorand.
8.0 p.m.—Weather Forecast.
8.5 p.m.—Topical Talk.
8.30 p.m.—Variety Programme.
10.10 p.m.—Time, Weather, News, Sports Notes and Programme Announcements.
10.30 p.m.—See Berlin (Witzleben).
12.30 a.m. (Sunday).—Silent Night.

BRNO (Czechoslovakia)
878 kc/s (342 m.); 3 kW.
Transmits at intervals from 11.15 a.m.
7.5 p.m.—Wireless Scene (Bypar and Tayer).
8.0 p.m.—See Prague.
9.0 p.m.—Dance Music.
10.0 p.m.—News.
10.25 p.m.—See Moravská-Ostrava.

BRUSSELS (Belgium)
Radio-Belgique. 590 kc/s (509 m.); 20 kW.
5.0 p.m.—Gounod Concert. Selection from "Faust." Ave Maria. Ballet Music from "Romeo and Juliet." Au printemps. Cavatina from "Cinq Mars." Marche funèbre d'une marionnette. Finale.
5.45 p.m.—Programme arranged by the RESEF.
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk on Belgian Museums: A Visit to the Plantin-Moretus Museum at Antwerp.
7.30 p.m.—Le Journal parlé.
8.0 p.m.—Orchestral Concert of Operatic Overtures. "Iphigenia in Aulis" (Glück). "The Magic Flute" (Mozart). "Stratonice" (Anacreon) (Cherubini). "Coriolanus" (Beethoven). "Oberon" (Weber). "Manfred" (Schumann). "Benvenuto Cellini" (Berlioz). "The Mastersingers" (Wagner). In the Interval, Talk and Readings: "The Belgian Writer Victor Kinon."
10.0 p.m.—Le Journal parlé.

BRUSSELS No. 2 (Belgium)
887 kc/s (338.2 m.); 20 kW.
Programme in Flemish.
5.0 p.m.—Dance Music.
5.45 p.m.—Concert. Overture, "Semiramis" (Rossini). Extase (Ganne). Selection from "The Tales of Hoffmann" (Offenbach). Talk. In a Persian Market (Ketelbey). In a Chinese Temple Garden (Ketelbey). La Féria (Lacôme).
6.45 p.m.—Gramophone Records.
7.15 p.m.—Talk: Ghent, the Town of the Artevelde Family.
7.30 p.m.—Le Journal Parlé.
7.55 p.m.—Agricultural Report.
8.0 p.m.—Gramophone Records.
8.45 p.m.—Dialogue (Ditrik).
9.0 p.m.—Dance Music.
10.0 p.m.—Le Journal Parlé.

BUCHAREST (Romania)
Radio-Bucarest. 761 kc/s (394 m.); 16 kW.
Transmits at intervals from 12 noon.
6.0 p.m.—Talks on: (a) History, (b) Geography, (c) Tourism.
7.0 p.m.—Gramophone Records.
8.0 p.m.—Concert. The Nutcracker Suite (Tchaikovsky). Songs. Ballet Suite, La fête du printemps (Thomas). Overture, "La belle Héloène" (Offenbach). In the interval at 8.30 p.m.—Talk.
9.45 p.m.—News Bulletin.

BUDAPEST Hungary)
545 kc/s (550 m.); 23 kW.
Transmits at intervals from 9.15 a.m.
7.10 p.m.—Song Recital.
7.50 p.m.—Talk: The International Model Exhibition.
8.15 p.m.—Choral Concert.

9.10 p.m.—Humorous Songs, followed by Military Band Concert. Slavonic March (Tchaikovsky). Overture (Sykora). Selection from "Don Pasquale" (Donizetti). Cinka Panne (Friscay). Oriental Intermezzo (Pecsi). After the Programme, Concert of Tzigane Music from the Café Emke.

COLOGNE (Germany)
Westdeutscher Rundfunk. 1,319 kc/s (227 m.); 1.7 kW.
See Langenberg Programme.

COPENHAGEN (Denmark)
1,067 kc/s (281 m.); 1 kW. Relay by Kalundborg, 260 kc/s (1,153 m.).
Transmits at intervals from 7.30 a.m. (Gymnastics).
3.0 p.m.—Instrumental Concert. March, Los banderillis (Volpatti). Overture, "Tancred" (Rossini). Waltz, Brüderlein fein (Fall). Moonlight Serenade (Cazeneuve). Selection from "Mignon" (Thomas). Melody caprice (Squire). Foxtrot (Rydahl). Reading (Rubinstein). Selection from "Sommerfugle" (Andersen). Humoresque (Järnefelt). Isola bella (Bece). Texas Waltz (Happers). Selection (Bece). Foxtrot (Heymann).
5.0 p.m.—Gramophone Records.
5.40 p.m.—Exchange Quotations and Fish Market Prices.
5.50 p.m.—Talk from the Aarhus Studio: From an Old Schoolmaster's Diary.
6.20 p.m.—French Language Lesson.
6.50 p.m.—Weather Report.
7.0 p.m.—News and Report of the Christian Listeners' Association.
7.15 p.m.—Time Signal.
7.30 p.m.—Talk by the Author. T. O. Lökken.
8.0 p.m.—Town Hall Chimes.
8.2 p.m.—12 midnight.—A Radio Ball for the Older Generation, including Pianoforte Solos and Songs.
10.0 p.m. (in an interval).—News.
12 midnight.—Town Hall Chimes and Close Down.

CORK (Ireland)
(6CK). 1,337 kc/s (225 m.); 1.5 kW.
7.30—10.30 p.m.—See Dublin.

DUBLIN (Ireland)
(2RN). 725 kc/s (413 m.); 1.5 kW.
1.30—2.0 p.m.—Time, Weather and Gramophone Concert.
7.20 p.m.—News Bulletin.
7.30 p.m.—Time Signal.
7.30 p.m.—Talk: Shakespearean Heroines.
7.45 p.m.—Irish Lesson.
8.0 p.m.—"La Traviata"—Opera (Verdi) by the Augmented Station Orchestra, the Station Opera Chorus and Principals, conducted by Mr. Vincent O'Brien.
10.30 p.m.—Time, News, Weather and Close Down.

FRANKFURT-am-MAIN (Germany)
770 kc/s (390 m.); 1.7 kW. Relay by Cassel, 1,220 kc/s (246 m.).
Transmits at intervals from 6.15 a.m. (Mühlacker Relay).
6.55 p.m.—Talk: A Parliamentary Session.
7.15 p.m.—Time, Weather and Economic Notes.
7.20 p.m.—Spanish Language Lesson.
7.45 p.m.—12 midnight.—See Mühlacker.
10.15 p.m. (in an interval).—Time, Weather, News and Sports Notes.
12 midnight (approx.).—Close Down.

HAMBURG (Germany)
Norag (ha, in Morse). 806 kc/s (372 m.); 1.7 kW. Relay by Bremen, 1,112 kc/s (270 m.); Flensburg, 1,373 kc/s (218 m.); Hanover, 530 kc/s (566 m.); and Kiel, 1,292 kc/s (232.2 m.).
Transmits at intervals from 5.45 a.m. (Time, Weather, Agricultural Notes).
3.15 p.m.—Schubert Concert. Ballet Music from "Rosamunde." Overture; "Rosamunde." Rondo for Violin and String Quartet. First Movement from the Pianoforte Sonata in A Major, Op. 120. German Dances for Orchestra. German Dances for Pianoforte. Overture in Italian Style. Second Movement from the Pianoforte Sonata in A Minor, Op. 164. Military March No. 1.
5.30 p.m.—Hanseatic Musical Research: Bulgaria—Talk, with Musical and Literary Illustrations.

6.15 p.m.—Talk: A Theatrical Picture Sheet.
6.45 p.m.—Variety Programme.
7.55 p.m.—Weather Report.
8.0 p.m.—Variety Programme, with the collaboration of Willy Hagen.
10.0 p.m.—News Bulletin.
10.30 p.m.—Orchestral Concert. Overture, "La dame blanche" (Boieldieu). Waltz, The Wedding of the Winds (Hall). Potpourri of German Songs, Eichenblätter (Morena). Serenade, Ay, Ay, Ay (Freire). Revue March, Berlin dir bleib ich treu (Kollo). Waltz, Zigeunertraum (Arrigé). Japanese Suite (Yoshitomo). Student Song Polonaise (Lindemann). Dance of the Derivishes (Bendix). March, In der Heimat, da gibt's ein Wiederseh'n (Lindemann).
12 midnight.—Dance Music.

HEILSBURG (Germany)
1,085 kc/s (276.5 m.); 75 kW. Relay by Danzig, 662 kc/s (453 m.).
Transmits at intervals from 6.30 a.m. (Gymnastics).
4.15 p.m.—Orchestral Concert. Overture, "The Golden Cross" (Brüll). Potpourri, Frühling im Walde (Ascher). Waltz from "Princess Gretl" (Reinhardt). Hungarian March, Balaton (Leopold). Zwei Herzen und doch nur ein Walzer (Richter). Potpourri, Wien bei Nacht (Kornzak). March, Felsenfest (Recktenwald).
5.15 p.m. (from Danzig).—Film Review.
5.30 p.m.—Talk: German and European Colonial Problems.
6.0 p.m.—World Market Report.
6.10 p.m.—Market Prices.
6.30 p.m.—Choral Concert from the Neuwasser Church, Königsberg. Die sieben Kerzen (K. Thomas). Motets to Words by Claudius (Karl Gerstberger). Two Chorales (J. S. Bach). Motet: Fürchte dich nicht, ich bin bei dir (J. S. Bach).
7.10 p.m.—Programme Announcements in Esperanto.
7.15 p.m.—Programme Forecast for the following Week.
7.30 p.m.—Monthly Review.
8.0 p.m.—Weather Report.
8.5 p.m.—Variety Programme.
8.45 p.m.—Humour in East Prussian Dialect.
9.0 p.m.—See Berlin (Witzleben).
12.30 a.m. (Sunday).—Close down.

HILVERSUM (Holland)
1,004 kc/s (298 m.); 8.5 kW.
8.40 p.m.—10.40 a.m.—Programme of the Workers' Radio Society (V.A.R.A.). Gramophone Records.
10.40 a.m.—Programme of the Liberal Protestant Radio Society (V.P.R.O.). Religious Transmission.
10.55 a.m. till Close Down.—Programme of the V.A.R.A.
10.55 a.m.—Programme for Night Workers. Orchestral Concert conducted by Hugo de Groot and Variety Items.
12.40 p.m.—Septet Selections and Gramophone Records.
2.25—2.55 p.m.—Interval.
2.55 p.m.—Gramophone Records.
3.5 p.m.—Talk by Mr. Kasemier.
3.20 p.m.—Gramophone Records.
3.25 p.m.—Afternoon Concert.
4.55 p.m.—Organ Recital.
5.25 p.m.—Esperanto Lesson.
5.45 p.m.—Talk by Dr. Gerversmann.
6.15 p.m.—Talk by Mr. Landré.
6.40 p.m.—Talk by Dr. F. Wibaut.
6.55 p.m.—Orchestral Concert, conducted by Hugo de Groot.
7.15 p.m.—Address.
7.50 p.m.—Concert (continued).
8.30 p.m.—Variety Programme.
8.40 p.m.—"The Seasons"—Oratorio (Haydn). In the interval: Topical Talk.
11.40 p.m.—News and Football Notes.
11.50 p.m.—Gramophone Records.
12.40 a.m. (Sunday).—Close Down.

HUIZEN (Holland)
160 kc/s (1,875 m.); 8.5 kW.
8.40 a.m. till Close Down. Programme of the Catholic Radio Society (K.R.O.).
8.40 a.m.—Gramophone Records.
10.40 a.m.—Gramophone Records.
12.10 p.m.—Religious Address by the Rev. Father Perquin.
12.41 p.m.—Police Notes.
12.55 p.m.—Sextet Selections.
2.25 p.m.—Gramophone Records.
3.10 p.m.—Young People's Programme.
3.40 p.m.—Programme for Children.
5.10 p.m.—Sports Talk.
5.50 p.m.—Gramophone Records.
6.41 p.m.—Esperanto Notes.

6.55 p.m.—Press Review.
7.15 p.m.—Gramophone Records.
7.40 p.m.—Talk by Dr. Eijkel.
8.10 p.m.—Sports Talk.
8.25 p.m.—Police Notes.
8.40 p.m.—Orchestral Concert. March, Die Nibelungen (Sonntag). Overture, "Zampa" (Hérold). Waltz, Estudiantina (Waldteufel). Selection from "Martha" (Flotow). Overture, "Russlan and Ludmilla" (Glinka). Waltz Potpourri (Robrecht). Radetzky March (Joh. Strauss). Torch Dance of the Brides from "Feramors" (Rubinstein). Polonaise in C Major (Chopin). Salut d'amour (Elgar). Entr'acte Gavotte from "Mignon" (Thomas). Selection from "The Geisha" (Jones). Perpetuum mobile (Joh. Strauss). Chant sans paroles (Tchaikovsky). Einzug der Rosenkönigin (Rhode). Torcadet et Andalouse (Rubinstein). A Strauss Bouquet (Winter).
9.40 p.m. (in an interview).—News.
11.40 p.m.—Gramophone Records.
12.40 a.m. (Sunday).—Close Down.

KALUNDBORG (Denmark)
Kalundborg Radio. 260 kc/s (1,153 m.); 10 kW.
See Copenhagen Programme.

KATOWICE (Poland)
Polskie Radio. 734 kc/s (408 m.); 16 kW.
Transmits at intervals from 11.40 a.m.
7.0 p.m.—Miscellaneous Announcements, Programme Notes, Theatre Review and Amusement Guide.
7.15 p.m.—Wireless Technical Talk.
7.40 p.m.—News Bulletin.
7.55 p.m.—Report of the Association of Polish Youth.
8.0 p.m.—Reading.
8.15 p.m.—The Letter Box.
8.30 p.m.—Light Music.
10.0 p.m.—See Warsaw.
10.15 p.m.—Chopin Concert.
10.50 p.m.—Weather, Programme Announcements in French and News.
11.0 p.m.—Dance Music.

KAUNAS (Lithuania)
Radio Kaunas. 155 kc/s (1,935 m.); 7 kW.
5.30 p.m.—Agricultural Talk.
5.50 p.m.—Talk by Dr. Jurgelionis.
6.10 p.m.—Gramophone Records.
6.20 p.m.—Talk: Book Reading.
6.40 p.m.—Talk: Untruthfulness.
7.0 p.m.—Time, Weather and News.
7.30 p.m.—Musical Programme.
9.0 p.m.—Talk by J. Razma.
9.20 p.m.—Talk: Electrical Apparatus.
9.40 p.m.—Musical Programme.

KÖNIGSBERG (Germany)
Ostmarken Rundfunk. 1,382 kc/s (217 m.); 1.7 kW.
See Heilsberg Programme.

LAHTI (Finland)
167 kc/s (1,796 m.); 54 kW. Relay by Helsingfors, 1,355 kc/s (221 m.).
Transmits at intervals from 11.0 a.m.
6.40 p.m.—Orchestral Concert of Light Music.
7.10 p.m.—Choral Selection.
7.20 p.m.—Talk by E. Gampen.
7.45 p.m.—Choral Selection.
7.55 p.m.—Dance Music.
8.45 p.m.—News in Finnish and Swedish.
9.15 p.m.—Talk: Modern Dances.
9.30 p.m.—Dance Music from the Restaurant Fennia.
11.0 p.m. (approx.).—Close Down.

LANGENSBERG (Germany)
Westdeutscher Rundfunk. 635 kc/s (473 m.); 17 kW. Relay by Aachen, Cologne and Münster, 1,319 kc/s (227 m.).
Transmits at intervals from 6.45 a.m. (Exercises).
1.5 p.m.—Orchestral Concert. March, In treue fest (Teike). Waltz, Auf Wiedersehen (Waldteufel). Overture, "Tempelweihe (Kéla-Béla). Two Selections (Reger): (a) Reigen, (b) Humoresque. Second Suite from the Music to "L'Arlesienne" (Bizet). Overture, A Summer's Night in Madrid (Glinka). Intermezzo, Hänschens Traum-Parade (Rebieck). Waltz Song, Am Müggelsee (René). Military Marches, Alte deutsche Treue (Frantzen).
3.50 p.m.—Programme for Children.
4.20 p.m.—Review of Books: Under the Tropical Sun.
4.40 p.m.—English Language Lesson.
5.0 p.m.—Afternoon Concert.
6.0 p.m.—Talk: Rambles in the Rhineland and Westphalia—The Right Bank of the Lower Rhine.
6.20 p.m.—Talk on Poultry-Breeding.

Programmes for Saturday—(Cont.)

6.40 p.m.—Talk: Possibilities of Further Training for Women in Domestic Careers.
7.0 p.m.—Weather, Time, Economic and Sports Notes.
7.15 p.m.—Wireless Notes.
7.30 p.m.—Talk: The Peculiarity of Evangelical Westphalia.
7.55 p.m.—News Bulletin.
8.0 p.m.—Variety Programme.
10.0 p.m.—News, Sports and Miscellaneous Notices, followed by Concert and Dance Music.
12 midnight.—Masters of Jazz—Gramophone Records.
1.0 a.m. (Sunday).—Close Down.

LEIPZIG (Germany)

Mitteldeutscher Rundfunk. 1,157 kc/s (259 m.); 2.3 kW. Relayed by Dresden, 941 kc/s (319 m.). Transmits at intervals from 9.0 a.m.
7.0 p.m.—Talk: On the Borders of Natural Science—Chemistry and Medicine.
7.30 p.m.—Cello and Harp Recital. Duets: (a) Adagio pathétique (Godard), (b) Harp Aria from the Oratorio "Esther" (Händel), (c) Minuet (Händel). Harp Solos: (a) Adagio and (b) Wellenspiegel (Pesse), (c) Concert Waltz (Otto Wunderlich). "Cello and Harp Duets: (a) Serenade (Carporeale), (b) Allegro (Corelli).
8.0 p.m.—Festival Concert by the Leipzig Male Voice Choir on the occasion of Professor Gustav Wohlgenuth's Fortieth Anniversary as Conductor, relayed from the Gewandhaus.
8.30 p.m.—A Cabaret Programme.
10.10 p.m.—News Bulletin, followed by Dance Music from Berlin (Witzleben).
12 midnight (approx.).—Close Down.

LJUBLJANA (Yugoslavia)

Radio-Ljubljana. 522 kc/s (574.7 m.); 2.8 kW.
Transmits at intervals from 12.15 p.m.
6.30 p.m.—Gramophone Records.
7.0 p.m.—Talk (to be announced).
7.30 p.m.—English Lesson.
8.0 p.m.—Talk (to be announced).
8.30 p.m.—Variety Programme.
10.0 p.m.—Weather, News and Light Music.

LWOW (Poland)

788 kc/s (381 m.); 21 kW. Transmits at intervals from 11.58 a.m.
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—See Warsaw.
7.40 p.m.—News Bulletin.
8.0 p.m.—See Warsaw.
8.15 p.m.—Talk: Bolshevism in Russian Literature before 1914.
8.30 p.m.—See Warsaw.
12 midnight (approx.).—Close Down.

MADRID (Spain)

Union Radio (EAJ7). 707 kc/s (424 m.); 2 kW. Transmits at intervals from 8.0 a.m.
7.0 p.m.—Chimes, Exchange, Market Prices and Cinema Review.
7.30 p.m.—Dance Music.
8.10 p.m.—Elementary Typewriting Lesson.
8.25 p.m.—News Bulletin.
8.30—9.30 p.m.—No Transmission.
9.30 p.m.—Chimes, Time, Exchange and Transmission of a Musical Comedy.
11.55 p.m.—News Bulletin.
12 midnight.—Chimes and Close Down.

MILAN (Italy)

Ente Italiano Audizioni Radiofoniche. 599 kc/s (501 m.); 8.5 kW. Programme relayed by Turin, 1,013 kc/s (296 m.); and Genoa, 959 kc/s (312.8 m.). Transmits at intervals from 8.15 a.m. (Giornale radio).
7.0 p.m.—Agricultural Report.
7.15 p.m.—Concert of Light Music.
7.35 p.m.—Gramophone Records.
8.0 p.m.—Time, Announcements, Giornale radio and Weather.
8.30 p.m.—A Comedy in Three Acts.
10.0 p.m.—Review of New Books.
10.10 p.m.—Operetta Selections.
11.0 p.m.—Giornale radio and Music from the Sala Gay, Turin.
11.55 p.m.—News Bulletin.

MORAVSKÁ-OSTRAVA (Czechoslovakia)

1,130 kc/s (263 m.); 11 kW. Transmits at intervals from 11.0 a.m.
7.0 p.m.—See Prague.
7.20 p.m.—See Brno.
8.0 p.m.—See Prague.
9.0 p.m.—See Brno.
10.20 p.m.—Programme Announcements and Theatre Notes.
10.25 p.m.—Dance Music.

MOTALA (Sweden)

221.9 kc/s (1,352 m.); 40 kW. See Stockholm Programme.

MÜLLACKER (Germany)

Süddeutscher Rundfunk. 833 kc/s (360 m.); 75 kW. Relayed by Freiburg, 527 kc/s (570 m.).

Transmits at intervals from 6.15 a.m. (Time; Weather; Gymnastics).
4.30 p.m.—Orchestral Concert.
6.0 p.m.—Time, Weather and Sports Notes.
6.15 p.m.—Talk: The Influence of the Modern Traffic System on Street-Planning.
6.55 p.m.—See Frankfurt.
7.15 p.m.—Time Signal.
7.20 p.m.—See Frankfurt.
7.45 p.m.—(from Karlsruhe).—Karl Joho reads from his Book "Narren-Zwetschgen."
8.5 p.m.—(from Pforzheim).—Folk Song Recital by the Pforzheim Glee Society.
9.0 p.m.—Viktor Hollaender Concert by the Stuttgart Philharmonic Orchestra, conducted by the Composer. Avantageur-Marsch from "Durchlaucht Radieschen." Little Suite, Luxus-Telegramme. Two Songs: (a) Wintermärchen and Sommernachtstraum, (b) Ich lasse mich gerne belehren from "Sonnenvogel." Overture, "Auf ins Metropol." Intermezzo from "Sumurdon." Love Scene. Two Songs: (a) Die Kirschen in Nachbars Garten, (b) Du mein altes Berlin! Casino Waltz from "Der Teufel lacht dazu." Two Soprano and Tenor Duets: (a) Kleine, komm! from "Der Regimentspapa," (b) Willst du mein Cousinchen sein? Potpourri, Metropolitan. Foxtrot, Alt-Berlin im Tempo der Zeit.
10.15 p.m.—Programme Announcements, News and Weather.
10.35 p.m.—Dance Music.
12 midnight (approx.).—Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserlautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.). Transmits at intervals from 6.45 a.m. (Gymnastics).
6.30 p.m.—Lither Concert.
7.25 p.m.—Wireless Notes.
7.40 p.m.—Talk: Gefahren in the South Tyrol.
8.0 p.m.—(from Nürnberg).—Choral Concert. Folk Songs from England, Finland, Scotland, Sweden, Norway, Serbia, Croatia, Slovenia, America, Bohemia, Flanders and Germany.
9.0 p.m.—Orchestral Concert. Bavarian Wireless March (Kugler). Overture, "Flotte Bursche" (Suppé). Waltz, Schneeleamann (Bauer). Selections by the Cecilia Quartet of Augsburg. Tivoli March (Schmiedecke). Bavarian Rhapsody (Pfitzinger). Quartet Music. Potpourri of Munich Songs—Humorous Medley (Katzenberger). Bavarian March Past (Scherzer).
10.0 p.m.—Dance Music from the Café Maximilian.
10.20 p.m. (in an interval).—Time, Weather, News and Sports Notes, 12 midnight (approx.).—Close Down.

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10.20 p.m. (in an interval).—Time, Weather, News and Sports Notes, 12 midnight (approx.).—Close Down.

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10.20 p.m. (in an interval).—Time, Weather, News and Sports Notes, 12 midnight (approx.).—Close Down.

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7.40 p.m.—Talk: Gefahren in the South Tyrol.
8.0 p.m.—(from Nürnberg).—Choral Concert. Folk Songs from England, Finland, Scotland, Sweden, Norway, Serbia, Croatia, Slovenia, America, Bohemia, Flanders and Germany.
9.0 p.m.—Orchestral Concert. Bavarian Wireless March (Kugler). Overture, "Flotte Bursche" (Suppé). Waltz, Schneeleamann (Bauer). Selections by the Cecilia Quartet of Augsburg. Tivoli March (Schmiedecke). Bavarian Rhapsody (Pfitzinger). Quartet Music. Potpourri of Munich Songs—Humorous Medley (Katzenberger). Bavarian March Past (Scherzer).
10.0 p.m.—Dance Music from the Café Maximilian.
10.20 p.m. (in an interval).—Time, Weather, News and Sports Notes, 12 midnight (approx.).—Close Down.

MUNICH (Germany)

563 kc/s (533 m.); 1.7 kW. Relayed by Augsburg, 536 kc/s (560 m.); Kaiserlautern, 536 kc/s (560 m.); and Nürnberg, 1,256 kc/s (239 m.). Transmits at intervals from 6.45 a.m. (Gymnastics).
6.30 p.m.—Lither Concert.
7.25 p.m.—Wireless Notes.
7.40 p.m.—Talk: Gefahren in the South Tyrol.
8.0 p.m.—(from Nürnberg).—Choral Concert. Folk Songs from England, Finland, Scotland, Sweden, Norway, Serbia, Croatia, Slovenia, America, Bohemia, Flanders and Germany.
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10.0 p.m.—Dance Music from the Café Maximilian.
10.20 p.m. (in an interval).—Time, Weather, News and Sports Notes, 12 midnight (approx.).—Close Down.

9.0 p.m.—Concert. Prelude (Rachmaninoff). Music for Radio (Filip Lazar). The Sunken Bell (Respighi), conducted by M. Théodore Martheu. Second Quartet (Borodin). Selection from "The Nothing-doing Bar" (Milhaud). Rondino (Sibelius). Zambra Granadina (Albéniz).
PARIS (France)
Radio-Paris. (CFR). 174 kc/s (1,725 m.); 17 kW. Transmits at intervals from 6.45 a.m. (Physical Culture).
12.30 p.m.—Gramophone Records. In the intervals at 1.0 p.m.—Exchange Quotations and News and at 1.30 p.m.—Exchange Quotations.
2.0 p.m.—Exchange and Market Prices.
3.30 p.m.—Exchange Quotations.
6.0 p.m.—Gramophone Records.
6.30 p.m.—Agricultural Report and Racing Results.
7.0 p.m.—Talk: How to be a Salesman.
7.10 p.m.—Talk: Contemporary England—The Industrial Crisis and Unemployment.
7.30 p.m.—Advanced English Lesson.
7.45 p.m.—Commercial Prices, Economic and Social Notes and News.
8.0 p.m.—Literary Readings: Strolling Players in the Seventeenth Century, according to the Memoirs and Pamphlets of the Period.
8.30 p.m.—News and Sports Results.
8.40 p.m.—A Review.
8.45 p.m.—Gramophone Records.
9.0 p.m.—"Athalie"—Tragedy (Racine, Music by Mendelssohn) by the Pupils of the Conservatoire, relayed from the Old Conservatoire. In the interval, Press Review, News and Time Signal.

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POZNAŃ (Poland)

896 kc/s (335 m.); 1.9 kW. Transmits at intervals from 7.0 a.m.
6.45 p.m.—Concert. Clarinet Solos: (a) Air de Valse (Kroepf), (b) Spanish Dances, Nos. 1, 2 and 3 (Moszkovsky), (c) Grand Valse (Durand). Soprano Solos: (a) Aria from "Il Trovatore" (Verdi), (b) Aria from "Carmen" (Bizet), (c) Aria from "The Gipsy Barou" (Joh. Strauss).
7.30 p.m.—Talk: Social Problems of Education.
7.40 p.m.—Talk on the Orient.
7.50 p.m.—The Letter Box.
8.0 p.m.—Talk on Art.
8.15 p.m.—Miscellaneous Items and News.
8.30 p.m.—See Warsaw.
10.0 p.m.—Time, News, Sports and Police Notes.
10.15 p.m.—See Warsaw.
10.35 p.m.—Dance Music Relay and Chimes.
12 midnight (approx.).—Close Down.

PRAGUE (Czechoslovakia)

Stranice. 617 kc/s (487 m.); 5.5 kW. Transmits at intervals from 11.15 a.m.
7.0 p.m.—Time, News, and Chimes.
7.5 p.m.—Mandoline Concert.
7.35 p.m.—Brass Band Concert.
8.30 p.m.—At Prague—Radio Scene.
9.0 p.m.—See Bratislava.
10.0 p.m.—Time, News, Sports Notes and Announcements.
10.25 p.m.—See Moravská-Ostrava.

RIGA (Latvia)

Radio Riga. 572 kc/s (525 m.); 13 kW. Transmits at intervals from 11.0 a.m. (News).
7.0 p.m.—Weather Report.
7.3 p.m.—Variety Programme.
8.0 p.m.—News Bulletin.
8.30 p.m.—Popular Concert.
9.8 p.m.—Dramatic Programme.
9.45 p.m.—Dance Music.
11.0 p.m. (approx.).—Close Down.

ROME (Italy)

Ente Italiano Audizioni Radiofoniche (IRO). 680 kc/s (441 m.); 75 kW. Relayed by Naples, 905 kc/s (332 m.); and 2RO, 11,810 kc/s (25.4 m.). Transmits at intervals from 8.15 a.m. (Giornale radio and Weather for Shipping).
5.0—6.30 p.m.—Instrumental Concert, conducted by Enrico Martucci. Selection from "Il Guarany" (Gomez). Le Cygne, for Cello and Harp (Saint-Saëns). Coronation March from "The Prophet" (Meyerbeer). Harp Solo: Ballata (Verdalle). Selection from "Mephistopheles" (Boito). Selection from "Nebuchadnezzar" (Verdi). Barcarolle from "Silvano" (Mascagni). Waltz from the Concerto for Harp (Hasselmanns). Selection from "The Siege of Corinth" (Rossini).
6.55 p.m.—Atmospheric Signals and Wireless. Telegraphy Lesson.
7.10 p.m.—(from Naples).—Harbour Notes.

7.15 p.m.—Agricultural Report.
7.25 p.m.—Giornale radio and Announcements.
7.50 p.m.—Gramophone Records.
8.10 p.m.—Giornale radio.
8.30 p.m.—Time and Announcements.
8.40 p.m.—Notes on Art.
8.55 p.m. (approx.).—Relay of an Opera from the Royal Theatre or the Teatro San Carlo, Naples. In the intervals, Announcements and Topical Talk.
10.55 p.m. (approx.).—News.

SCHENECTADY (U.S.A.)

General Electric Company (WGY). 790 kc/s (379.5 m.); 50 kW. Relayed at intervals by W2XAF on 9.530 kc/s (31.48 m.). Transmits at intervals from 12.45 p.m.
11.0 p.m.—Warren Munson, Crooner.
11.45 p.m.—Uncle Jim.
12 midnight.—Programme from New York.
12.15 a.m. (Sunday).—Health Talk.
12.20 a.m.—Sleepy Hall and Hotel DeWitt Clinton Orchestra, Albany, N.Y.
12.44 a.m.—Weather Report.
12.45 a.m.—Programme from New York.
1.0 a.m.—Time Signal.
1.1 a.m.—Jeannette Getz (Pianist).
1.15 a.m.—Programme from New York.
6.0 a.m.—Sleepy Hall and Hotel DeWitt Clinton Orchestra, Albany, N.Y.
6.30 a.m.—Doc Peyton and Hotel Kenmore Orchestra, Albany, N.Y.
7.0 a.m. (approx.).—Close Down.

SOTTENS (Switzerland)

Radio-Suisse Romande. 743 kc/s (403 m.); 60 kW; Lausanne, 442 kc/s (680 m.); and Geneva, 395 kc/s (760 m.). Transmits at intervals from 12.25 p.m.
4.0 p.m. (from Lausanne).—Concert.
5.30 p.m.—Orchestral Concert.
7.0 p.m.—Time and Weather.
7.10 p.m. (from Lausanne).—News.
7.20 p.m. (from Lausanne).—Jazz Concert. A Musical Promenade with Paul Whiteman, The Revelers, Sophie Tucker, Layton and Johnstone and others.
8.0 p.m.—Orchestral Concert of Light Music.
9.0 p.m. (from Geneva).—The Cabaret of Smiles.
10.0 p.m.—News Bulletin.
10.10 p.m. (from Lausanne).—Dance Music.
11.0 p.m. (approx.).—Close Down.

STOCKHOLM (Sweden)

Radiojäst (SASA). 680 kc/s (436 m.); 75 kW. Relayed by Boden, 244 kc/s (1,229.5 m.); Göteborg, 932 kc/s (322 m.); Hörby, 1,166 kc/s (257 m.); Motala, 221.9 kc/s (1,352 m.); Östersund, 389 kc/s (779 m.); Södervall, 554 kc/s (542 m.). Transmits at intervals from 7.15 a.m. (Gymnastics).
4.0 p.m.—Orchestral Concert relayed from Göteborg. King Edward March (Ohlson). Liebeswalzer (Moszkovsky). Overture, "Der Freischütz" (Weber). Gavotte and Waltz in G Major (Sinding). Selection from "The Daughter of the Regiment" (Donizetti). Hindu Song (Rimsky-Korsakoff). Waltz, Du und du (Joh. Strauss).
5.0 p.m.—Weather, followed by Programme for Children.
5.30 p.m.—Gramophone Records.
6.30 p.m.—Talk: Swedish Peasants.
7.0 p.m.—Weather, followed by a Play for Boys (Karl May).
8.0 p.m.—Orchestral Concert.
9.40 p.m.—Old Dance Music.
10.40 p.m.—Gramophone Dance Records.
11.0 p.m.—Dance Music.
12 midnight (approx.).—Close Down.

STRASBOURG (France)

Radio-Strasbourg (PTT). 869 kc/s (345 m.); 15 kW. Transmits at intervals from 11.30 a.m.
3.50 p.m.—Dance Music.
4.30 p.m.—Talk in French: Vocations.
4.45 p.m.—Horticultural Talk in German.
5.0 p.m.—Orchestral Concert.
5.45 p.m.—French Lesson in German.
6.10 p.m.—Orchestral Concert.
6.45 p.m.—Talk in French. The French Language.
7.0 p.m.—Orchestral Music.
7.30 p.m.—News in French and German.
7.45 p.m.—Gramophone Records.
8.30 p.m.—Orchestral Concert. Overture, "The Drum Major's Daughter" (Offenback). Waltz (Lehar). Suite from "Coppelia" (Delibes). Salut d'amour (Elgar). Dance of the Hours from "La Gioconda" (Ponchielli). Selection from "La petite marie" (Lecocq). Nocturne from "Cocoric" (Ganne). Waltz. Die

Schönbrunner (Lanner). Ideal (Tosti). March, Le Père, la Victoire (Ganne).
9.30 p.m.—Mandoline Concert.
10.30 p.m.—Gramophone Dance Records.
12 midnight.—Close Down.

TOULOUSE (France)

Radiophonie du Midi. 779 kc/s (385 m.); 8 kW. Transmits at intervals from 12.45 p.m.
6.45 p.m.—Musical Programme.
7.30 p.m.—News, Racing Results, Exchange and Market Prices.
7.45 p.m.—Musical Programme.
8.55 p.m.—Fashion Review.
9.0 p.m.—Concert. Songs from (a) "Werther" (Massenet), (b) "Manon" (Massenet), (c) "Mignon" (Thomas), (d) "Lakmé" (Delibes), and (e) "La Tosca" (Puccini).
9.30 p.m.—Musical Programme.
10.30 p.m.—News Bulletin.
10.45 p.m.—Dance Music.
11.0 p.m.—Musical Programme. In the interval at 11.15 p.m.—North African News.
12 midnight.—Weather and Announcements.

VIENNA (Austria)

Radio-Wien. 581 kc/s (517 m.); 20 kW. Relayed by Graz, 851 kc/s (352 m.); Innsbruck, 1,058 kc/s (283 m.); Klagenfurt, 662 kc/s (453.2 m.); Linz, 1,220 kc/s (246 m.); and Salzburg, 1,373 kc/s (218 m.). Transmits at intervals from 9.20 a.m.
7.0 p.m.—Topical Programme.
7.25 p.m.—Time, Weather, Alpine Weather and Programme Announcements.
7.30 p.m.—Part Relay of a Concert by the Währing Male Voice Choral Society, relayed from the Industriehaus.
8.35 p.m.—Gramophone Concert—Famous Italian Singers.
9.10 p.m.—News Bulletin.
9.20 p.m.—Orchestral Concert of Marches. Marche militaire No. 3 (Schubert). Turkish March from "The Ruins of Athens" (Beethoven). Funeral March (Beethoven). Radetzky March (Joh. Strauss, sen.). March in Historic Style (Komzak). Historic March, Andreas Hofer (Komzak). Fanfare militaire—in March Form (Ascher). Soldatenspiele (Wagner). War March from "Athalie" (Mendelssohn-Bartholdy). March from "A Midsummer Night's Dream" (Mendelssohn-Bartholdy). Coronation March from "The Prophet" (Meyerbeer). War March from "Rienzi" (Wagner). Entry March from "Tannhäuser" (Wagner). Homage March from "Sigurd Jorsalfar" (Grieg). Entry of the King, from "Dalibor" (Smetana). Entry March from "The Queen of Sheba" (Goldmark). March Fragments from the Operas: "Aida" (Verdi), "Faust" (Gounod), "Le Tribut de Zamora" (Gounod), "Carmen" (Bizet) and "Hérodiade" (Massenet). Entry of the Vikings (Frederiksen). Festival March, Op. 1 (R. Strauss). Festival Prelude (O'Neill). A State Procession (Ketelbey). Jeanne d'Arc—Triumphal March for Four Trumpets with Orchestra (Otto Rómisch). Old German Marches. Famous German Marches Past and Present. Famous German-Austrian Marches Past and Present.

WARSAW (Poland)

Polskie Radio. 212 kc/s (1,411 m.); 158 kW. Transmits at intervals from 11.40 a.m.
4.45 p.m.—Orchestral Concert.
5.15 p.m.—Talk: Old and Modern Culture in Silesia.
5.45 p.m.—Programme for Children, relayed from Wilno, 815 kc/s (368.1 m.).
6.15 p.m.—Orchestral Concert.
6.45 p.m.—Miscellaneous Items.
7.10 p.m.—Agricultural Report.
7.25 p.m.—Gramophone Records.
7.35 p.m.—Programme Announcements.
7.40 p.m.—Radio Journal.
7.55 p.m.—Gramophone Records.
8.0 p.m.—Talk on Illusions.
8.15 p.m.—The Letter Box.
8.30 p.m.—Programme (not yet announced), relayed from Wilno.
9.10 p.m.—Orchestral Concert. Overture, "Si j'étais roi" (Adam). Suite, Un giorno in Venezia (Nevin). Spanish Intermezzo, Tintorette (Kockert). Waltz from "The Gipsy Baron" (Strauss). Selection from "Eine einzige Nacht" (Stolz).
10.0 p.m.—On the Horizon.
10.15 p.m.—Chopin Pianoforte Recital.
10.30 p.m.—Weather, Police and Sports Notes.
11.0 p.m.—Dance Music and Light Musical Selections.
12 midnight (approx.).—Close Down.

Stations in Order of Frequencies and Wavelengths

Corrected in accordance with the latest official information available at the time of going to press

The figures in black type represent the power according to the Prague power-rating scheme

Kc/s	M.	Station	Dial Readings	Kc/s	M.	Station	Dial Readings	Kc/s	M.	Station	Dial Readings
EUROPEAN											
		(Including Stations connected with the European System.)		779	385	Toulouse (Radio) (France), 8kW.				Berne (Switzerland), 1 kW.	
155	1935	Kaunas (Lithuania), 7 kW.		788	381	Lwów (Poland), 21 kW.				Cartagena (Spain), 0.4 kW.	
160	1875	Huizen (Holland), 2.5 kW. (Hilversum programme and announcements.)		797	376.4	Glasgow (S.C.), 1.2 kW.				Cassel (Germany) (relays Frankfurt), 0.3 kW.	
167	1796	Lahti (Finland) (relays Helsinki), 54 kW.		806	372	Hamburg (Germany), 1.7 kW.				Eskilstuna (Sweden) (relays Stockholm), 0.25 kW.	
174	1725	Radio Paris (CFR), 17 kW.		810	370.4	Radio LL (France).				Kiruna (Sweden) (relays Boden), 0.25 kW.	
183.5	1635	Königs Wusterhausen (Zeeseen) (Germany), 35 kW. Relays Berlin.		815	368.1	Fredrikstad (Norway), 0.8 kW. (relays Oslo).				Linz (Austria) relays Vienna, 0.6 kW.	
193	1554.4	Davenport National Station (Gt. Britain), 35 kW.		824	364.1	Seville (Union Radio) (EAJs) (Spain), 1.5 kW.		1220	246	Pietersaari (Jacobstad) (Finland) (relays Helsinki), 0.25 kW.	
195	1538	Ankara (Turkey), 7 kW.		825.3	363.4	Wlno (Poland), 0.5 kW.				Säffle (Sweden) (relays Stockholm), 0.4 kW.	
202.5	1481	Moscow (Old Komintern) (RAI) (Russia), 40 kW.		833	360	Bergen (Norway), 1.13 kW.				Schaerbeek (Brussels) (Belgium), 0.1 kW.	
207.5	1445.7	Eiffel Tower (FLE), 15 kW.		842	356.3	Algers (N. Africa), 13 kW.				Turku (Abo) (Finland) (relays Helsinki), 0.6 kW.	
212.5	1411	Warsaw No. 1 (Poland), 156 kW.		851	352	Mühlacker (Germany), 75 kW.				Basle (Switzerland), 0.65 kW.	
221.9	1362	Motala (Sweden) (relays Stockholm), 40 kW.		855.5	351	London Regional Stn., 70 kW.				Belfast (2BE) (Ireland), 1.2 kW.	
222.2	1350	Kasbah (Tunis), 0.5 kW.		860	349	Graz (Austria) (usually relays Vienna), 9.5 kW.				Stavanger (Norway), 0.5 kW.	
230.6	1304	Moscow (Trades Unions), 75 kW.		869	345	Strasbourg-Brumath (France), 15 kW.				Radio Beziers (France), 1.5 kW.	
244	1229.5	Boden (Sweden), 0.75 kW.		878	342	Nürnberg (Germany) (relays Munich), 2.3 kW.				Nürnberg (Germany) (relays Munich), 2.3 kW.	
250	1200	Istanbul (Turkey), 5 kW.		887	338.2	Brno (Czechoslovakia), 3 kW.				Bordeaux Sud - Ouest (France), 3 kW.	
260	1153	Reykjavik (Iceland), 21 kW.		896	335	Brussels No. 2 (Belgium), 20 kW. (Flemish programme)				Radio - Nimes (France), 1 kW.	
268.8	1116	Kalundborg (Denmark) (relays Copenhagen), 10 kW.		905	332	Strasbourg-Brumath (France), 15 kW.				Orebrö (relays Stockholm) (Sweden), 0.25 kW.	
272	1103	Novosibirsk (Russia), 4 kW.		914	328.2	Brussels No. 2 (Belgium), 20 kW. (Flemish programme)				Kristiansand (Norway), 0.5 kW.	
278.6	1073	Moscow Popoff (Russia), 40 kW.		923	325	Cadix (Spain), 0.5 kW.				Lodz (Poland), 2.2 kW. Exp'l.	
280	1071	Rostov-Don (Russia), 4 kW.		932	322	Poznan (Poland), 1.9 kW.				Kiel (Germany) (relays Hamburg), 0.3 kW.	
283	1060	Oslo (Norway), 75 kW.		941	319	Naples (RNA) (Italy), 1.7 kW.				Norrköping (Sweden), 0.25 kW.	
300	1000	Tiflis (Russia), 10 kW.		950	316	Grenoble (PTT) (France), 1.2 kW.				Helsingborg (Sweden), 0.25 kW.	
320	937.5	Leningrad (Russia), 20 kW.		959	312.8	Poste Parisien (Paris) 1.2 kW.				Malmö (Sweden) (relays Stockholm), 0.75 kW.	
357	840	Kharkov (Russia), RV20.		968	309.9	Breslau (Germany), 1.7 kW.				Uddevala (Sweden), 0.1 kW.	
375	800	Nijni Novgorod (Russia), 1.8 kW.		977	307	Göteborg (Sweden), (relays Stockholm), 15 kW.				Aachen (Germany), 0.3 kW.	
385	778	Kiev (Russia), 20 kW.		986	304	Dresden (Germany) (relays Leipzig), 0.3 kW.				Cologne (Germany), 1.7 kW.	
389	770	Petrozavodsk (Russia), 2 kW.		995	301	Sofia, Rodno - Radio, (Bulgaria), 1 kW.				Münster (Germany), 0.8 kW.	
416.6	720	Östersund (Sweden), 0.75 kW. (relays Sundsvall).		1004	298.8	Marsailles (PTT) (France), 1.5 kW.				Cork (6CK) (Ireland), 1.5 kW.	
428	700	Geneva (Switzerland), 1.5 kW.		1013	296.1	Cracow (Poland), 1.5 kW.				Pécamp (France).	
442	680	Moscow (Experimental), 20 kW.		1022	293	Genoa (I.GE) (Italy), 1.5 kW.				Helsinki (Finland), 15 kW.	
511	587.1	Minsk (Russia), 4 kW.		1031	291	Radio-Vitus (France).				Flensburg (Germany) (relays Hamburg), 0.6 kW.	
522	574.7	Lausanne (Switzerland), HB2, 0.6 kW.		1040	288.5	Aberdeen (2BD), 1.2 kW.				Salzburg 0.6 kW. Relays Vienna.	
527	570	Hamar (Norway) (relays Oslo), 0.8 kW.		1049	286	Hilversum (Holland), 8.5 kW. (Hilversum programmes and announcements).				Königsberg (Germany), 1.7 kW.	
531	565	Ljubljana (Yugoslavia), 2.8 kW.		1058	283	Tallinn (Estonia), 0.7 kW.				Halmstad (Sweden), 0.25 kW.	
536	560	Freiburg-im-Breisgau (Germany) (relays Stuttgart), 0.3 kW.		1067	281	Kosice (Czechoslovakia), 2.5 kW.				Radio Chatelineau (Belgium).	
545	550	Hanover (Germany), 0.3 kW. (relays Hamburg).		1071	280	Limoges, PTT (France), 0.08 kW.				Warsaw, No. 2 (Poland), 1.9 kW. Experimental.	
554	542	Smolensk (Russia), 2 kW.		1076	279	Tampere (Tammerfors) (Finland) (relays Helsinki) 1 kW.				Boris (Sweden), 0.12 kW.	
563	533	Augsburg (Germany) (relays Munich), 0.3 kW.		1085	276.5	Viiipuri (Viborg) (Finland), relays Helsinki, 15 kW.				Gävle (Sweden) (relays Stockholm), 0.2 kW.	
572	525	Kaiserslautern (Germany) (relays Munich), 0.3 kW.		1094	274.2	British Relay Stations				Kristinehamn (Sweden), 0.25 kW.	
581	517	Budapest (Hungary), 23 kW.		1103	272	Bournemouth (6BM), 1.2 kW.				Jönköping (Sweden), 0.25 kW. (relays Stockholm).	
585	511	Sundsvall (Sweden), 15 kW.		1112	270	Bradford (2LS), 0.16 kW.				Leeds (2LS) (Gt. Britain), 0.16 kW.	
588	493.4	Munich (Germany), 1.7 kW.		1121	268	Dundee (2DE), 0.16 kW.				Karlskrona (relays Stockholm) (Sweden), 0.25 kW.	
589	487	Riga (Latvia), 13 kW.		1130	265.4	Dundee (2DE), 0.16 kW.				St. Quentin (France).	
617	487	Vienna (Rosenhügel) (Austria), 20 kW.		1139	263	Edinburgh (2EH), 0.4 kW.					
626	479.2	Manchester (2ZY), 1.2 kW. North Regional Station (Gt. Britain), 70 kW. (Reception Tests).		1148	261.3	Hull (6KH), 0.16 kW.					
630	476	Prague (Czechoslovakia), 5.5 kW.		1157	259	Liverpool (6LV), 0.16 kW.					
635	473	Marichester (2ZY), 1.2 kW.		1166	257	Newcastle (5NO), 1.2 kW.					
644	466	North Regional Station (Gt. Britain), 70 kW. (Reception Tests).		1175	255	Plymouth (5PY), 0.16 kW.					
644	465.8	Simferopol (Russia), 1.2 kW.		1184	253	Sheffield (6FL), 0.16 kW.					
653	459	Langenberg (Germany), 17 kW.		1193	252	Stoke-on-Trent (6ST), 0.16 kW.					
		Lyons (La Doua), France (relays Ecole Supérieure), 2.3 kW.		1205	249	Swansea (5SX), 0.16 kW.					
		Tartu (Estonia).		1211	247.7	Lyons (Radio) (France), 0.8 kW.					
		Beromünster (Switzerland), 60 kW.				Montpellier (France), 1.2 kW.					
		Bodø (Norway), 0.6 kW.				Berlin Relay (Germany), 0.6 kW.					
		Bolzano (Italy) (BZ), 0.2 kW.				Innsbruck (Austria) (relays Vienna), 0.6 kW.					
		Danzig (Free City), 0.25 kW. (relays Königsberg).				Magdeburg (Germany), 0.6 kW.					
		Klagenfurt (Austria), 0.6 kW. (relays Vienna).				Stettin (Germany) (relays Berlin), 0.6 kW.					
		Porsgrund (Norway) (relays Oslo), 1.5 kW.				Varberg (Sweden), 0.3 kW.					
		Salamanca (Spain), EAJ22, 1 kW.				Copenhagen (Denmark), 1 kW.					
		San Sebastian (Spain), 0.6 kW.				Radio Liège (Belgium).					
		Tromsø (Norway), 0.11 kW.				Bratislava (Czechoslovakia), 14 kW.					
		Uppsala (Sweden), 0.2 kW. (relays Stockholm).				Heilsberg (Germany), 75 kW. Relays Königsberg.					
		Moscow (Russia), RA2, 1 kW.				Turin (Italy), 8.5 kW.					
		Aalesund (Norway), 0.4 kW.				Rennes (France), 1.2 kW.					
		Notodden (Norway), 0.9 kW.				Bremen (Germany) (relays Hamburg), 0.3 kW.					
		Paris (PTT) (Ecole Supérieure) (France), 1 kW.				Barcelona (EAJ13), Radio Catalana (Spain), 10 kW.					
		Rjukan (relays Oslo) (Norway), 0.17 kW.				Oviedo (Spain), 0.7 kW.					
		Rome (IRO) (Italy), 75 kW.				Lille (PTT) (France), 1 kW.					
		Malmberget (relays Boden) (Sweden), 0.25 kW.				Moravská-Ostrava (Czechoslovakia), 11 kW.					
		Stockholm (Sweden), 75 kW.				London National Stn., 68 kW.					
		Belgrade (Yugoslavia), 3 kW.				Leipzig (Germany), 2.3 kW.					
		Kharkov (Russia), 0.11 kW.				Hörby (Sweden), relays Stockholm, 15 kW.					
		Madrid (Union Radio) (EAJ7) (Spain), 2 kW.				Toulouse (PTT) (France), 1 kW.					
		Berlin (Witzleben), 1.7 kW.				Gleiwitz (Germany), (relays Breslau), 5.6 kW.					
		Rabat (Morocco), 2.5 kW.				Almeria (Spain) (EAJ18), 1 kW.					
		Dublin (2RN) (Ireland), 1.5 kW.				Barcelona (Asociacion Nacional) (EAJ15), 1 kW.					
		Katowice (Poland), 16 kW.				Trollhätten (Sweden), 0.3 kW.					
		Sottens (Switzerland), 60 kW.				Juan-les-Pins (Nice) (France).					
		Midland Regional Station (Gt. Britain), 38 kW.				Kalmar (relays Stockholm), 0.25 kW.					
		Bucharest (Romania), 16 kW.									
		Frankfurt (Germany), 1.7 kW.									

DEVIATIONS

The following are the actual deviations from the official frequencies, as noted during measurements made at the Tatsfield Checking Station. All differences of 1.0 kc/s and over are shown.

819.2	366.2	Fredrikstad (Norway)
975.2	307.6	Bordeaux-Lafayette (France)
977	307	Falun (Sweden)
983	305.1	Zagreb (Yugoslavia)
1012.2	296.3	Turin (Italy)
1020	294.1	Limoges, PTT (France)
1085	276.5	Bratislava (Czechoslovakia)
1223.7	245.1	Schaerbeek (Belgium)
1228	244.2	Berne (Switzerland)
1250	240	Stavanger (Norway)

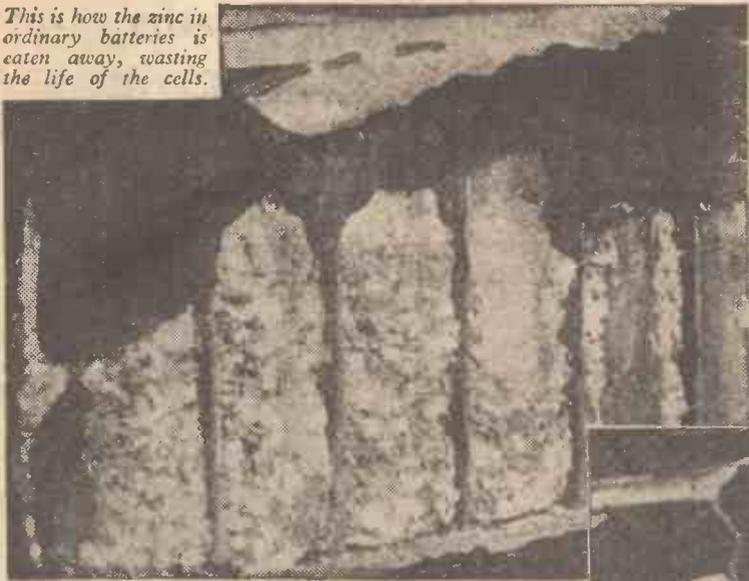
BRITISH DOMINIONS AND COLONIES

AUSTRALIA		
580	517	Perth (7ZL), 3 kW.
620	484	Melbourne (3AR), 5 kW.
665	451	Sydney (2FC), 5 kW.
690	435	Perth (6WF), 5 kW.
734	409	Adelaide (5CL), 5 kW.
779	385	Brisbane (4QG), 5 kW.
808	371	Melbourne (3LO), 5 kW.
838	358	Sydney (2BL), 5 kW.
CANADA		
690	435	Toronto (CKGW), 5 kW.
730	411	St. Hyacinthe (CKAC), 5 kW.
780	385	Winnipeg (CKY-CNRW), 5 kW.
EAST AFRICA		
750	400	Nairobi, Kenya (ILO)
INDIA		
810	370.4	Calcutta (VUC), 3 kW.
840	357.1	Bombay (VUB), 3 kW.
NEW ZEALAND		
714	420	Wellington (2YA), 5 kW.
SOUTH AFRICA		
677	443	Johannesburg (JB), 10 kW.
731	410	Durban, 1.5 kW.
815	363	Cape Town, 1.5 kW.

* See Deviation List.

For List of Short Wave Stations see page 607.

This is how the zinc in ordinary batteries is eaten away, wasting the life of the cells.



The Secret of the Cell

YOUR H.T. battery consists of a number of separate cells. Each cell is a zinc cylinder containing electrically active chemicals.

The zinc is the keystone of the cell. It must last as long as there is energy in the chemicals.

In ordinary batteries the zinc fails first (see the top picture). But in Grosvenor



In Grosvenor the Mercury-treated zinc lasts until all the chemicals are used.

MERCURY GUARDS THE ZINC

Grosvenor cells last longest and give out *all* their energy because in manufacture the zinc is specially treated with mercury, which protects it.

Grosvenor cells, after months of use, remain as in the second picture. Grosvenor batteries are unequalled and you should use them because they give

DOUBLE THE LIFE

Grosvenor Batteries are all-British

RED LINE	BROWN LINE	BLUE LINE	TRIPLE RED LINE (Super)
120 volts - 14/-	120 volts - 17/6	120 volts - 25/-	120 volts - 27/-
99 volts - 11/6	108 volts - 15/6	108 volts - 21/-	105 volts - 24/-
66 volts - 7/6	99 volts - 14/6	99 volts - 18/-	99 volts - 22/-
9 volts - 1/3	66 volts - 9/6	66 volts - 12/6	64 volts - 14/6
	9 volts - 1/9	9 volts - 2/-	60 volts - 13/6

(These prices do not apply in the Irish Free State.)

GROSVENOR ELECTRIC BATTERIES, LTD., 2/3 WHITE STREET, LONDON, E.C.2

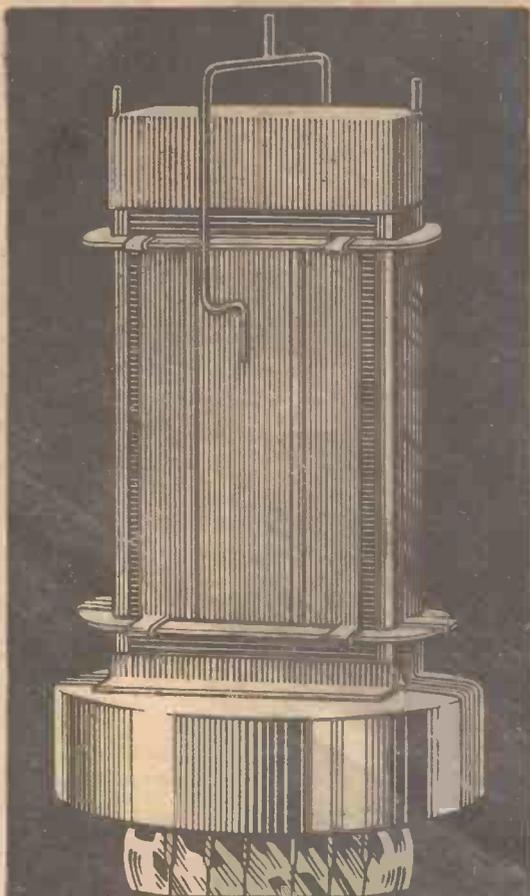
MERCURY GUARDS
The **ZINC**.

DOUBLE THE LIFE



GROSVENOR MERCURY H.T. BATTERY

(M.C.9)



How Cossor permits a Stage Gain higher than

400

It is now appreciated by Radio engineers that H.F. Stage Gain depends upon four factors: coil efficiency, screening, valve inter-electrode capacity, mutual conductance.

It is comparatively simple to design coils of suitable impedance for high amplification. But such coils are unusable if the associated Screened Grid Valve possesses high inter-electrode capacity as the Receiver becomes unstable.

The Cossor Screened Grid Valve has the lowest inter-electrode capacity—of the order of .001 micro microfarads—

of any S.G. Valve on the market. Thus, with this valve, greater range and increased volume become immediately available. Comparative tests show that with suitable coils a stage gain higher than 400 can be obtained with the Cossor 215 S.G.—a noteworthy achievement which has attracted considerable attention from all the leading Radio experts.

You can now obtain superior results from your Screened Grid Receiver if you replace its Screened Grid Valve with a Cossor 215 S.G. Not only will you lengthen its range but you'll improve its selectivity as well.

Over 50 types of Cossor Valves are available from any Wireless Shop to suit all 2, 4, and 6 volt Battery operated and A.C. Mains Receivers.

COSSOR

SCREENED GRID VALVES

Cossor 215 S.G. 2 volts, .15 amp.
Impedance 300,000. Amplification
Factor 330. Mutual Conductance
1.1 m.a./v. Normal working Anode
Volts 120. Positive
Voltage on Screen 60-80. Price **20/-**